



City of Rockville
Rockville, Maryland
INVITATION FOR BIDS #19-22

**KING FARM FARMSTEAD WATER/SEWER
INFRASTRUCTURE AND FIRE SUPPRESSION
INSTALLATION PROJECT**

**Bids Due by 2:00 PM ET
Friday, March 24, 2023**

ISSUED BY:
Procurement Department
City of Rockville, City Hall
111 Maryland Avenue, 1st Floor
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 Outreach Program

It is the intent of the City of Rockville to increase opportunities for minority, female and disabled (MFD) 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 enhancements to this solicitation's requirements for possible consideration and/or inclusion in future solicitations are encouraged. Any questions regarding MFD outreach or questions/concerns regarding the City's bidding process should be addressed to Pat Ryan, pryan@rockvillemd.gov or 240-314-8434.

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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 pryan@rockvillemd.gov**.

I/WE HAVE DECLINED TO BID ON **IFB #19-22**, titled **King Farm Farmstead Water/Sewer Infrastructure and Fire Suppression Installation Project** for the following reason(s): [Please place a check mark (✓) next to the reason(s) as applicable]

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

REMARKS:

Are you a Minority, Female, or Disabled (MFD) business? _____ Yes _____ No

Company Name: _____

Mailing Address: _____

Telephone Number: _____ Email Address: _____

Authorized Signatory

Printed Name

Title

Date

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**CITY OF ROCKVILLE
ROCKVILLE, MARYLAND**

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KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
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VII	<p><u>Drawings</u> <i>Posted Separately</i></p> <p>Permitted Design Plans Final</p> <ol style="list-style-type: none"> 1. WSSC Site Utility Water and Sewer Plan, SU-3319-2021 (Ten pages) 2. Sediment Control Plan and FCP Plan, SCP2022-00021 and FTP2022-00012 (Six pages) 3. Public Works Plan, PWK2022-00059 (Four pages) <p>Add/Alt 1 Plans Final</p> <ol style="list-style-type: none"> 1. Sprinkler System Conceptual Design Plan (Eight pages)

**INVITATION FOR BID #19-22
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SECTION I: PROJECT OVERVIEW

1.1 SECURED BIDS will be received electronically via a City designated bid receipt software solution until **2:00 PM ET on Friday, March 24, 2023**. 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 bids.

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 computer server system, located at Rockville City Hall. In order to be considered, bids must be received on or before 2:00 p.m (Rockville Server Time). Therefore, a bid submitted at 2:00 p.m. is acceptable, where a bid received a fraction of a second after 2:00 p.m. (Rockville Server Time) is late and will not be accepted.

ATTENTION: BIDDERS ARE HEREBY NOTIFIED THAT ROCKVILLE 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.

1.2 SITE LOCATION

The King Farm Farmstead Water/Sewer Infrastructure and Fire Suppression Installation Project is located at 16100 Frederick Road /1101 Grand Champion Drive, Rockville, Maryland 20850. The project limits are shown on Appendix A.

1.3 BACKGROUND

The King Farm Farmstead property is currently owned by the City of Rockville. Formerly the largest farm in the area, much of the original farm has long since been sold off and developed. The property that remains is comprised of 8 buildings on 7 acres. It is occupied by the typical farm structures including (2) large dairy barns, (1) hay drying barn converted to a sheltered picnic area, (2) tenant houses, (1) horse barn, (1) garage/tenant apartment and (1) manse/farmhouse.

Two wells exist on the property and are operational. One of these serves the main house and the other a community garden area on the property. The garden well is posted as non-potable water. Water and sewer are provided to the adjacent King Farm subdivision by WSSC. The existing farmhouse (the Manse) is connected to a collector sewer that runs parallel to MD 355 (Frederick Avenue) and located in the south easterly direction near the intersection of Frederick Road and Ridgemont Avenue. At least one of the tenant houses is connected to the sewer system with at least two visible cleanouts. Site water service is not provided to the King Farm subdivision. A major WSSC water storage tank is located to the west of the site.

1.4 PROJECT DESCRIPTION

City of Rockville intends to enter into a Unit Price Task Order with a qualified firm to provide construction and construction-related services including but not limited to the construction, repair, retrofit, alteration and modernization for:

King Farm Farmstead Water/Sewer Infrastructure and Fire Suppression Installation Project:

The King Farm Farmstead Water/Sewer Infrastructure and Fire Suppression Installation Project project is located at 16100 Frederick Road /1101 Grand Champion Drive, Rockville, Maryland 20850. The scope of work to be done under this contract consists of the furnishing of all materials and the construction, complete in place, of approximately 534 feet of 8-inch class 54 ductile iron water main, 140 feet of 6-inch class 54 ductile iron water main, and 290 feet of 4-inch class 54 ductile iron water main to serve several buildings in the King Farm Farmstead Property, including 8-inch meter and associated vault. In addition, the installation of approximately 600 feet of 8-inch PVC sewer main, 120 feet of 6-inch PVC sewer main, and 264 of 4-inch PVC sewer main including manholes, surface restoration, and incidental items of work as shown on the Contract Drawings, specified in Contract Documents, or as directed by the Engineer.

1.5 SUMMARY DESCRIPTION OF ADD/ALTERNATE ITEMS:

The contractor shall submit a bid for each add alternate section. The City reserves the right to award, to the lowest responsible bidder, the combination of base plus add/alternate sections that will allow the most work to be completed within the City's budget. Please find the descriptions provided for each Add/Alternates below.

Add/Alternate 1: Design and Installation of Fire Sprinkler System (for both dairy barns and the "Manse" house)

Connect to new water main (within 5' of building) and bring service within the building for the two dairy barns and the "Manse" house. Design, furnish and install two dry pipe sprinkler systems in the barns and one wet pipe sprinkler system in the "Manse" house that meets the requirements of the design plans.

1.6 PROJECT DURATION/COMPLETION

Contractor shall begin the project within ten (10) calendar days following issuance of a City of Rockville Purchase Order (Notice to Proceed). All work shall be completed within **6 months (180)** consecutive calendar days. The time allotted for the work is of the essence. Liquidated damages shall be assessed at Four Hundred Dollars (\$400) per day for each calendar day the work exceeds beyond the specified time allotted for this contract. It is possible that the City may issue a Limited Notice to Proceed (LNTP) to allow for mobilization, coordination, field measuring, shop drawing review/approval, submission of work plan and ordering long lead time components, and possible work if mutually agreed upon between the City and the contractor.

1.7 PERMITS

The City of Rockville is listed as the applicant for all permits in order to waive City of Rockville permit fees. It is the contractor's responsibility to comply with all permit terms and conditions, including maintenance and warranty requirements. The Contractor is contractually responsible for implementation and compliance with all conditions of all permits as listed below and also responsible for obtaining additional trade/utility permits listed in order to successfully complete WSSC Water and Sewer Infrastructure requirements and City of Rockville Sprinkler System installation project:

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- **WSSC Site Utility Permit**- This permit will be issued by WSSC upon bid award and will be provided to the Contractor. The permit is attached in **Appendix D** for information only; Permit Number SU-3319-2021
- **WSSC Abandonment Permit** - This permit is issued by WSSC and is attached in **Appendix E**; Permit Number AB-1374162-2022
- **WSSC Service Connection Permit** - This permit is issued by WSSC and is attached in **Appendix F**; Permit Number SC-1374210-2022
- **City of Rockville Sediment Control Permit**- This City permit is issued by the Department of Public Works and is attached in **Appendix G**; Permit Number SCP2022-00021
- **City of Rockville Public Works Permit**- This City permit is issued by the Department of Public Works and is attached in **Appendix H**; Permit Number PWK2022-00059
- **City of Rockville Forestry Permit**- This City permit is issued by the Department of Public Works and is attached in **Appendix I**; Permit Number [FTP2022-00012](#)
- **City of Rockville Historical District Commission (HDC) Approval** - This City approval is issued by the Historical District Commission and is attached in **Appendix J**; Permit Number HDC2022-01074
- **City of Rockville Plumbing Permit (PMB)**- This is a required trade permit that will be needed to bring water supply into the Manse and (2) dairy barn buildings. *Contractor to apply and obtain.*
- **City of Rockville Fire Protective System Permit (FPS)**- This is a trade permit that will be required for installation of the sprinkler system in the Manse and (2) dairy barns. *Contractor to apply and obtain.*
- **Water Well Abandonment-sealing Report** – This form must be completed and submitted to the Maryland Department of the Environment (MDE) upon abandonment of wells. *Contractor to comply.*
- **WSSC Service Connection Construction Permit** – This permit is required for construction on any WSSC mains and/or services. *Contractor to apply and obtain.*
- **WSSC Plumbing Permit** - This permit is required for construction on any WSSC mains and/or services. *Contractor to apply and obtain.*

The Contractor is responsible for all reporting, inspection requests, documentation and notifications associated with these permits. Compensation for implementation of the requirements of the above permits is to be included in appropriate bid items and no special compensation will be made

1.8 PROPOSED SCHEDULE

- A. IFB release date – February 13, 2023
- B. Pre-Bid Conference, virtual, – **Wednesday February 15, 2023 at 12:30pm ET**
- C. **Pre-Bid Site Visit- REQUIRED, Between Tuesday, February 21, 2023 and Friday February 24, 2023 (see Section 1.10 below for RSVP requirements**
- D. Questions Due – **Friday, March 3, 2023 by 2:00PM ET**
- E. IFB Closing Date – **Friday, March 24, 2023 by 2:00PM ET**

1.9 PRE-BID MEETING

A virtual, telepresence pre-proposal meeting will be held on **WEDNESDAY, FEBRUARY 15, 2023 at 12:30PM ET**. Offerors must register below in order to attend the meeting. This meeting is not mandatory; however, offerors are strongly encouraged to attend

Register for Virtual Pre-Proposal Meeting Here: [REGISTER](#)

1.10 SITE VISIT(S) - REQUIRED

A site visit is **required** for any submittals. Multiple site visit options are available **between Tuesday, February 21, 2023 and Friday, February 24, 2023 between the hours of 9am-11am ET and 1pm- 3pm ET** Please RSVP to Mauricio Daza, mdaza@rockvillemd.gov at least four hours before your requested appointment time, with your name, company name, date and time. The location is:

16100 Frederick Road /1101 Grand Champion Drive, Rockville, MD

All individuals interested in viewing the vicinity of the work area shall assume complete responsibility and liability for any and all visits. The City will not be able to answer questions at these Site Visits. See **DEADLINE FOR QUESTIONS** below regarding how questions shall be addressed.

It is **mandatory** that the bidder attend a minimum of one (1) Site Visit as outlined in the preceding paragraph. To record and provide evidence of your visit, all visitors **MUST** sign-in with Mauricio Daza (please RSVP directly to him at mdaza@rockvillemd.gov **PRIOR** to attendance) All individuals interested in viewing the vicinity of the work area shall assume complete responsibility and liability for any and all visits.

1.11 DEADLINE FOR QUESTIONS

Questions pertaining to this bid may be directed to Pat Ryan, Principal Buyer via City's Collaboration Portal only at

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

no later than 2:00PM ET on Friday March 3, 2023. Oral answers to questions relative to interpretation of specification or the bid process will not be binding on the City.

1.12 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.

1.13 AGREEMENT/PERFORMANCE & PAYMENT BONDS

The successful contractor shall be required to complete and electronically return a copy of the City's Standard Form of Agreement along with Performance and Payment Bonds in the amount of 100% of the Contract award within fifteen days after the date of issuance (samples attached), 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. No other form of performance or payment security will be permitted. Failure by the contractor to provide both the electronic versions and original versions of 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. Any instance where the City cannot locate the mailed versions of the agreement or bonds 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.

1.14 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: [REGISTER](#)

1.15 SUBMITTALS

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

- 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 General Conditions and Inspections 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 three references shall be provided; additional project references may be required to meet all the requirements.

1.16 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 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.

1.17 ENVIRONMENTAL IMPACT

It is the intent of the City of Rockville to purchase goods, equipment, and services having the least adverse environmental impact, within the constraints of its codified purchasing requirements, departmental needs, availability, and sound economical considerations. Suggested changes and environmental enhancements for possible inclusion in future revisions of this specification are encouraged.

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1.18 NOTICE TO BIDDERS

"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."

1.19 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.

1.20 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.

1.21 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.

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CITY OF ROCKVILLE
MARYLAND

Section II: GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS
CONSTRUCTION 3/2022

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.

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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. Program information and registration can be viewed at the following web address:

<https://na3.docusign.net/Member/PowerFormSigning.aspx?PowerFormId=8868c030-9f7e-4b3e-88de-c89fbce65636&env=na3&acct=b56266c3-6d22-426a-8422-e01bcbb466ec&v=2>

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.

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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

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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 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.

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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

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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

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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

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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

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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

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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.

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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.

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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.

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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.

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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).

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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 01000-10-1 (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 contrast 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.

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

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.

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

INSURANCE REQUIREMENTS REV2 (09/08)

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
1. Workers' Compensation 2. Employers' Liability	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: WC 00 03 13 Waiver of Our Rights to Recover From Others Endorsement signed and dated.
3. Commercial General Liability 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. CG 20 37 07 04 and CG 20 10 07 04 forms to be both signed and dated.
4. Automobile Liability 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. Form CA20 48 02 99 form to be both signed and dated.
5. Excess/Umbrella Liability	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.
6. Professional Liability NOT REQUIRED	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

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

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

INVITATION FOR BIDS #19-22
KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE AND
FIRE SUPPRESSION INSTALLATION PROJECT
SECTION III: Special Provisions

3.1 Point of Contact

To ensure fair consideration for all Bidders, the City prohibits communication to or with any department, elected official or employee during the submission process, other than the Procurement Division, regarding the requirements for this submittal. Any such contact may be considered grounds for disqualification. The City shall not be responsible for oral interpretations given by any City employee or its representative.

All inquiries concerning clarifications of this solicitation or for additional information shall be submitted in writing by email only and directed as follows:

The sole point of contact at the City for purposes of this RFP, prior to award of any contract, is Pat Ryan, pryan@rockvillemd.gov.

Pat Ryan
City Hall – Procurement Division
111 Maryland Avenue
Rockville, MD. 20850
Telephone: (240) 314-8434
Email: pryan@rockvillemd.gov

All responses to questions/clarifications will be sent to all prospective Bidders in the form of a written addendum. Material changes, if any, to the scope of work, or bid procedures will also be transmitted by written addendum.

3.2 Minimum Qualification Requirements

At a minimum, Bidders must provide written evidence (through references) of five (5) years prior experience with the scope of work as detailed in the plans and specifications.

Bidders must have WSSC experience and work must be performed by a WSSC-Approved Utility Contractor familiar with all WSSC code standards and details. The contractor must provide a copy of their current Certificate of Insurance naming WSSC as an additional insured and a certificate holder. The certificate must also include a Waiver of Subrogation endorsement for auto and workers compensation coverage.

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. The City reserves the right to require references for such subcontractors. Please note that Master Plumbers shall have WSSC experience.

The City shall have the right to take such steps as it deems necessary to determine the ability of the Bidder to perform the work and reserves the right to request additional information. The right is reserved to reject

any bid where an investigation of the evidence or information submitted by such Bidder does not satisfy the City that the Bidder is qualified to properly carry out the terms of the Bid Document.

3.3 Contract Term

The anticipated terms of this contract shall be six (6) months or (180) Calendar days. It is possible that the City may issue a Limited Notice to Proceed (LNTTP) to allow for mobilization, coordination, field measuring, shop drawing review/approval, submission of work plan and ordering long lead time components, and possible work if mutually agreed upon between the City and the contractor.

3.4 Estimated Quantities

No warranty is given or implied by the City as to any components listed in this Bid and are considered to be estimates for the purpose of information only. The City reserves the right to accept all or any part of the bid and to increase or decrease quantities of Bidder's bid to meet additional or reduced requirements of the City.

3.5 Additional Items/Duties

The City may require additional items/duties of a similar nature, but not specifically listed in the contract. The Contractor agrees to provide such items/duties and shall provide the City prices on such additional items or duties based upon a formula or method which is the same or similar to that used in establishing the prices in the bid. If the price(s) offered are not acceptable to the City, and the situation cannot be resolved to the satisfaction of the City, the City reserves the right to purchase those items from other vendors, or to cancel the contract upon giving the Contractor thirty (30) days written notice.

3.6 No Exclusive Contract/Additional Services

Contractor agrees and understands that the contract shall not be construed as an exclusive arrangement and further agrees that the City may, at any time, secure similar or identical services at its sole option.

3.7 Exceptions

An exception is any condition, limitation, restriction, term or other deviation from the requirements of the Invitation for Bids that is a condition of the bidder's bid or that the bidder expects to become part of a contract with the City. Bidders are strongly discouraged from taking exceptions to the requirements of the Invitation for Bids. Exceptions may result in the City declaring the bidder's bid to be non-responsive. Any exceptions taken must refer to the specific language of the Invitation for Bids to which the bidder objects and must be included with the bid on a separate page. The City shall be entitled to assume that the absence of any exceptions constitutes the bidder's willingness to comply with all requirements of all parts of the Invitation for Bids.

3.8 Complete Information Required on Bid Form

All bids must be submitted on the attached Bid Form with all sections completed. To be considered a valid bid, the bid form pages and required forms must be returned, properly completed, as outlined in the General Conditions.

3.9 Cooperative Procurement

The Contractor may extend all of the terms, conditions, specifications, and unit or other prices of any award resulting from this solicitation to any and all other public bodies, subdivisions, school districts, community colleges, colleges, and universities. The City assumes no authority, liability or obligation, on behalf of any other public entity that may use any contract resulting from this solicitation.

3.10 License and Support Agreements

In the event a bidder or manufacturer requires an agreement to be signed the agreement must be returned

with the bid for review prior to any subsequent award. The City reserves the right to refuse consideration of an agreement and may hold the bidder to any agreement entered into as a result of a purchase order being issued as a result of this IFB without prior knowledge that the bidder and/or manufacturer will require an additional document, contract or agreement to be executed.

**INVITATION FOR BIDS #19-22
KING FARM FARMSTEAD
WATER /SEWER INFRASTRUCTURE AND FIRE SUPPRESSION INSTALLATION PROJECT**

SECTION IV: TECHNICAL SPECIFICATIONS/SCOPE OF WORK

4.1 TECHNICAL SPECIFICATIONS/SCOPE OF WORK

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WSSC STANDARD SPECIFICATIONS (See Appendix B)

DIVISION	SECTION	TITLE	DATE RELEASED
2		SITWORK	
	02315	EARTHWORK FOR PIPELINE CONSTRUCTION	JULY 2021
	02370	SLOPE AND WATERCOURSE PROTECTION	JULY 2013
	02510	WATER DISTRIBUTION SYSTEM - CONTRACTOR FURNISHES ALL MATERIALS	MAY 2022
	02511	CHLORINATION AND DECHLORINATION	MAY 2022
	02530	SANITARY SEWAGE SYSTEM	AUGUST 2021
	02920	LAWNS AND GRASSES	JULY 2011
	02930	EXTERIOR PLANTS	APRIL 2009
	02950	PAVEMENT REQUIREMENTS	JULY 2021
3		CONCRETE	
	03300	CAST-IN-PLACE CONCRETE	JULY 2019
	03400	PRECAST CONCRETE UNDERGROUND STRUCTURES	JULY 2019

WSSC STANDARD DETAILS (See Appendix C)

SECTION	TITLE	NUMBER
<i>II</i>	<i>MISCELLANEOUS DETAILS</i>	
	TRENCH DETAIL - FLEXIBLE PIPE (DUCTILE IRON 24-INCH AND SMALLER AND PVC AWWA C900/905)	M/8.1a
	TRENCH DETAIL - FLEXIBLE PIPE GRAVITY PVC SEWER (SDR 35)	M/8.1c
	EXISTING WSSC PIPELINE CROSSING TRENCH DETAILS	M/8.3
	CONTRACTOR'S CONSTRUCTION STAKE-OUT RECORD	M/10.0
	ALUMINUM LADDER	M/16.0
	LADDER EXTENSION	M/16.1
	MINIMUM CLEARANCE OF WATER PARALLEL TO SEWER	M/18.0
<i>III</i>	<i>SEWER DETAILS</i>	
	48-INCH DIAMETER PRECAST CONCRETE MANHOLE	S/1.0
	PRECAST TOP SLAB FOR 48-INCH AND 60-INCH DIAMETER PRECAST CONCRETE MANHOLES	S/1.3
	PRECAST CONCRETE MANHOLE WITH FALL PREVENTION SYSTEM	S/1.4
	PIPE TO EXISTING BRICK MANHOLE CONNECTION FOR USING DIP, RCP OR AWWA C900/905 PVC ONLY	S/3.0
	BENTONITE APPLICATION FOR GROUTED PIPE TO MANHOLE CONNECTION	S/3.01
	ABANDONMENT OF PIPE AT MANHOLE	S/3.5
	MANHOLE AND SEWER ABANDONMENT	S/3.6
	ADJUSTING RINGS FOR 22-INCH OPENING WATERTIGHT MANHOLE FRAME AND COVER	S/4.0
	STANDARD CLEANOUT INSTALLATION FOR 4-INCH AND 6-INCH SEWER HOUSE CONNECTIONS	S/5.0
	CLEANOUT COVER ASSEMBLY FOR 4-INCH CLEANOUTS	S/5.1

CLEANOUT (LAMPHOLE) COVER ASSEMBLY FOR 6-INCH CLEANOUTS	S/5.2
4-INCH AND 6-INCH DROP HOUSE CONNECTIONS TO SEWER MAIN	S/6.0
4-INCH AND 6-INCH DROP HOUSE CONNECTIONS TO MANHOLE	S/6.1
4-INCH AND 6-INCH SEWER HOUSE CONNECTIONS	S/6.2
4-INCH AND 6-INCH PVC HOUSE CONNECTIONS AND FITTINGS	S/6.3
4-INCH RADIAL MULTIPLE SEWER HOUSE CONNECTIONS INSTALLATION AND CHANNELIZATION	S/6.4

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ADJUSTABLE VALVE BOX ROUND HEAD SLIDING TYPE	W/2.1
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**CATEGORY 000 – GENERAL REQUIREMENTS, REFERENCES, AND
SPECIFICATIONS**

A. SUMMARY DESCRIPTION OF WORK

City of Rockville intends to enter into a Unit Price Task Order with a qualified firm to provide construction and construction-related services including but not limited to the construction, repair, retrofit, alteration and modernization for:

King Farm Farmstead Electric Infrastructure and Fire Suppression Installation Project:

The King Farm Farmstead Electric Infrastructure and Fire Suppression Installation Project project is located at 16100 Frederick Road /1101 Grand Champion Drive, Rockville, Maryland 20850. The scope of work to be done under this contract consists of the furnishing of all materials and the construction, complete in place, of approximately 534 feet of 8-inch class 54 ductile iron water main, 140 feet of 6-inch class 54 ductile iron water main, and 290 feet of 4-inch class 54 ductile iron water main to serve several buildings in the King Farm Farmstead Property, including meter and associated vault. In addition, the installation of approximately 600 feet of 8-inch PVC sewer main, 120 feet of 6-inch PVC sewer main, and 264 of 4-inch PVC sewer main including manholes, surface restoration, and incidental items of work as shown on the Contract Drawings, specified in Contract Documents, or as directed by the Engineer.

B. REFERENCED STANDARDS AND SPECIFICATIONS

The following specifications and standards, including addenda, amendments and errata, form a part of this specification to the extent required by the references thereto. The Contractor must adhere to any newer versions of the referenced standards and specifications. The list below is the most frequently used standards that are referenced but other references may be referenced in the standard specifications.

American Association of State Highway and Transportation Officials (AASHTO). Washington D.C. <<http://www.transportation.org/>>. Referenced as “AASHTO”.

American Concrete Institute (ACI), Farmington Hills, Michigan. <<http://www.concrete.org/general/home.asp>>. Referenced as “ACI”.

- ACI-318-11 – “Building Code Requirements for Reinforced Concrete”.
- ACI-350-06 – “Code Requirements for Environmental Engineering Concrete Structures and Commentary”.
- ACI SP-66-04 – “ACI Detailing Manual”. This standard replaced ACI 315-92.

American National Standards Institute (ANSI), Washington D.C.

- A300 – “American National Standard for Pruning”, 2017.
- Z60.1 – “American Standard for Nursery Stock”, 2014.

American Public Health Association (APHA), American Water Works Association (AWWA), and Water Environment Federation (WEF), “Standard Methods for the Examination of Water and Wastewater”. Washington D.C. 2017, 23rd Edition. <<http://www.standardmethods.org/>>. Referenced as “Standard Methods for the Examination of Water and Wastewater”.

American Society of Testing and Materials International, Standards Worldwide. West Conshohocken, PA. <<http://www.astm.org/Standard/index.shtml>>, Referenced as “ASTM”.

Concrete Reinforcing Steel Institute (CRSI). Schaumburg, Illinois. <<http://www.crsi.org/>>. Referenced as “CRSI”

- CRSI “Manual of Standard Practice 2018”, 29th edition.
- CRSI “Placing Reinforcing Bars 2019”, 10th edition,

International Code Council (ICC), International Building Code (IBC) as adopted by Montgomery County. Washington D.C. <<http://www.iccsafe.org/>>. Referenced as “International Building Code”

Maryland Department of the Environment (MDE), Water Management Administration in association with Soil Conservation Service and State Soil Conservation Committee, “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”. Baltimore, Maryland. 2011. Referenced as “MDE Specifications for Soil Erosion and Sediment Control”.

Maryland Department of Environment, Water Resources Administration, “Maryland’s Guidelines to Waterway Construction”, Baltimore, Maryland. November 2000 revision. Referenced as “MDE Construction Guidelines”.

Maryland Department of Transportation (MDOT), State Highway Administration (MSHA), Hanover, Maryland. <<http://www.roads.maryland.gov/home.aspx/>>. As revised on MSHA website. Referenced as “MSHA”.

- “Book of Standards for Highway and Incidental Structures”. Referenced as “MSHA Standard Details”.
- “Standard Specifications for Construction and Materials”, July, 2019 and all revisions. Referenced as “MSHA Standard Specifications” or “MSHA”.

State of Maryland, Division of State Documents, “The Code of Maryland Regulations (COMAR)”

Montgomery County Department of Transportation (MCDOT), Rockville, Maryland.

- “Design Standards”; <<http://www2.montgomerycountymd.gov/DOT-DTE/Common/Standards.aspx>>
- “Montgomery County Road Code”, 2008.
- “Work Zone Traffic Control Standards (MCWZTCS)”, July 2014.

Montgomery County Government, Noise Control Ordinance.

www.montgomerycountymd.gov/DEP/Resources/Files/downloads/compliance/Noise-control-ordinance.pdf

National Asphalt Pavement Association (NAPA), Lanham, Maryland.

<<http://www.asphaltpavement.org/>>.

- “Design, Construction and Maintenance Guide for Porous Asphalt Pavements for Stormwater Management,” Information Series No. 131, 2008.
- “Design, Construction, and Maintenance of Open-Graded Friction Courses”, Information Series 115, 2002.

NSF International, “NSF/ANSI Standard 61-2019” (NSF 61). Ann Arbor, Michigan.

<<http://www.nsf.org/>>.

United States Department of Agriculture, Natural Resources Conservation Service (NRCS), Maryland, “Conservation Practice Standard, Pond, Code 378”, January 2000. Washington D.C. Referenced as “NRCS MD-378”.

United States Department of Agriculture (USDA), United States Composting Council (USCC),

“Test Methods for the Examination of Composting and Composts (TMECC)”. Washington D.C. 2002.

United States Department of Justice (USDJ), American Disabilities Act (ADA), “ADA Standards for Accessible Design”. Washington D.C. 2010. <<http://www.ada.gov/>>

United States General Services Administration, “Index of Federal Specifications, Standards and Commercial Item Descriptions (FMR 102-27)”. Washington D.C.

<<http://apps.fas.gsa.gov/pub/fedspecs/>>. Referenced as “Federal Specifications”

United States Occupational Safety and Health Administration (OSHA), “Confined Spaces Standard, 2015”. Washington D.C. <<http://www.osha.gov/>>.

Washington Suburban Sanitary Commission (WSSC). Laurel, Maryland. <http://www.wsscwater.com/>

- “General Conditions and Standard Specifications”, 2019. Referenced as “WSSC General
- Conditions and Standard Specifications”.

- “Standard Details for Construction”, 2016. Referenced as “WSSC Standard Details”.

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C. SPECIFICATIONS/SCOPE OF WORK:

Where applicable, items are cross-referenced to, and incorporate, information and requirements provided in the Washington Suburban Sanitary Commission Standard Specifications and Details, latest revision.

The link to the Specifications is as follows: <https://www.wsscwater.com/work-with-us/codes-standards-policies-and-procedures>

Note: The General Provisions Terms and Conditions and Division 1 of the Washington Suburban Sanitary Commission Standard Specifications **DO NOT APPLY** to, and are not incorporated into, this Contract or Task Order. Refer to the terms and conditions of this Contract or Task Order including the General Conditions of Construction Contract.

Any references in the Specifications to the “Commission”, “Administration” or “Owner” shall be interpreted as referring to “City of Rockville, Maryland”.

Any references in the Specifications shall be interpreted as referring to the “Contract Administrator” as defined in the Contract.

Any references in the Specifications to material testing by the Engineer shall be deemed to be the Contractor’s responsibility. Contractor must utilize the services of accredited material testing laboratories that are acceptable to the Contract Administrator. All field and laboratory testing required by the Contract must be performed by qualified professionals who are licensed to perform such tests. The results of all material tests must be submitted to the Contract Administrator promptly and before requesting payment for the Work being tested for compliance.

Any reference to “Contract Documents” in the Specifications shall be interpreted as referring to “Task Order Documents and/or Contract Documents”.

SECTION 001 – SUMMARY OF WORK

DESCRIPTION:

1.1 Project Description:

- A. See Section 002 Scope of Work, as further described on the drawings and specifications entitled:
“KING FARM FARMSTEAD ELECTRIC INFRASTRUCTURE AND FIRE SUPPRESSION INSTALLATION PROJECT – 16100 Frederick Road /1101 Grand Champion Drive, Rockville, Maryland 20850”
- B. All work is indicated on the contract documents and includes site work.
- C. Portions of the work of this Project shall comply with the Washington Suburban Sanitary Commission (WSSC) Standard Specification and Details unless noted on the plans. The Contractor shall review each section of the specification to determine which portions of the work shall comply with these standards and shall fully inform themselves of the requirements of the Standards. Work required to be completed in compliance with these Standards that is not installed correctly in the opinion of the Engineer shall be removed and replaced at no cost to the Owner.
- D. These specifications are divided into Sections in order to aid the Contractor in awarding portions of it to subcontractors. The division of the work in no way relieves the General Contractor from the responsibility of making the actual division of work between subcontractors if they are employed by the Contractor nor does it relieve him from the responsibility of performing a job complete in all respects.

1.2 Regulatory Requirements:

- A. The following regulations (Most Current Editions) are applicable to this project:
 - 1. The Maryland Accessibility Code, COMAR 05.02.02, 09.20.01, 26.04.01, 26.04.04
 - 2. 2010 American With Disabilities Act (2010 ADA Standards)
 - 3. Safe Drinking Water Act
 - 4. County, State, and Federal Safety and Health Laws
 - a. State Code & ER 29-87
 - 5. National Electrical Safety Code (NESC)
 - 6. The International Plumbing Code plus the local plumbing code.
 - 7. Governing Fire Department Requirements
 - 8. Utility Company Requirements
- B. Other regulations may also be applicable.

- C. Obtain copies of the regulations listed above and keep at the project site for the use of all parties.
 - 1. Submit copies of all permits, licenses and similar permissions obtained, and receipts for fees paid, to the Owner directly.

1.3 ACCESS TO THE SITE AND USE OF THE PREMISES

- A. The space available to the Contractor for the performance of the work, either exclusively or in conjunction with others performing other construction as part of the project, will be outlined at the pre-Construction meeting
 - 1. Other areas are off limits to all construction personnel.
 - 2. Contractor shall coordinate the public's use of and access to the community garden during construction.
- B. Limited storage is available on site and will be limited to those areas as outlined at the pre-Construction meeting. Coordinate storage and deliveries with Owner as required.
- C. Signs: Provide signs adequate to direct visitors.
 - 1. Provide construction sign, as approved by the Engineer and Owner, to remain posted throughout duration of the construction project. See Section 012 – Construction Facilities & Temporary Controls, for specific signage information.
 - 2. Do not allow posting of unauthorized signs.

1.4 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
 - 1. Comply with limitations on use of public streets and with other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work to normal business working hours of 7:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise indicated. Working outside of these hours must first be approved in writing by the Owner.
- C. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupies by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
 - 1. Notify Owner not less than two days in advance of proposed utility interruptions.
- D. Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to Owner occupancy with Owner.
- E. Nonsmoking Building: Smoking is not permitted within the buildings or within 25 feet of entrances, operable windows, or outdoor-air intakes.

- F. Controlled Substances: Use of tobacco products and other controlled substances on Project site is not permitted.

MATERIALS:

Not Used

CONSTRUCTION:

3.1 PRE-CONSTRUCTION MEETING

- A. A pre-construction meeting will be held at a time and place designated by the Owner, for the purpose of identifying responsibilities of the Owner's and the Engineer's personnel and explanation of administrative procedures.
- B. The Contractor shall also use this meeting for the following minimum agenda:
1. Construction schedule
 2. Sequence of Construction
 3. Use of areas of the site
 4. Delivery and storage
 5. Safety
 6. Security
 7. Cleaning up
 8. Subcontractor procedures relating to:
 - a. Submittals
 - b. Change orders
 - c. Applications for payment
 - d. Record documents
- C. Attendees shall include:
1. The Owner
 2. The Engineer, and any consultants
 3. The Contractor and its superintendent
 4. Major subcontractors, suppliers, and fabricators
 5. Inspectors for the City of Rockville (Department of Public Works, Sediment Erosion Control, Construction Management, Forestry, etc.)
 6. Washington Suburban Sanitary Commission (WSSC) Pipeline Construction Division Manager
 7. Others interested in the work.

3.2 SECURITY PROCEDURES

- A. Site and Existing building is to remain open for use on the 1101 Grand Champion Lane property. Maintain pedestrian access, especially to the community garden.
- B. Site and existing buildings will not be open for use on the 16100 Frederick Road property. Owner reserves the right to occupy and to place and install equipment in completed portions of the Work, prior to Substantial Completion of the Work, provided such occupancy does

not interfere with completion of the Work. Such placement of equipment and limited occupancy shall not constitute acceptance of the total Work.

- C. Provide secure storage for materials for which the Owner has made payment and which are stored on site.
- D. Secure completed work as required to prevent loss.

No additional security will be provided by the Owner for the construction site. From the official Notice to Proceed Date, until the final Use and Occupancy permit is received and all construction materials are removed from the site, the Contractor shall be required to secure the site in order to prevent, theft, damage, vandalism, etc. All damage which occurs to the new work shall be the responsibility of the Contractor for repairs during the entire contract construction period. The Contractor shall be responsible for any additional security.

MEASUREMENT AND PAYMENT:

Cost is incidental to other cost line items and Sections.

SECTION 002 – SCOPE OF WORK

BASE BID SCOPE OF WORK DESCRIPTION:

The scope of work to be done under this contract consists of the furnishing of all materials and the construction, complete in place, of approximately 534 feet of 8 inch class 54 ductile iron water main, 140 feet of 6 inch class 54 ductile iron water main, and 290 feet of 4 inch class 54 ductile iron water main to serve several buildings in the King Farm Farmstead Property located at 1101 Grand Champion Road and 16100 Frederick Road in the City of Rockville, Montgomery County, Maryland. In addition, the installation of approximately 600 feet of 8-inch PVC sewer main, 120 feet of 6 inch PVC sewer main, and 264 of 4 inch PVC sewer main including manholes, surface restoration, and incidental items of work as shown on the Contract Drawings, specified in Contract Documents, or as directed by the Engineer. The intent of this project is to provide water and sewer service to multiple buildings within the property for current and future use by the City of Rockville. Portion of the work shall comply with the Washington Suburban Sanitary Commission (WSSC) Standard Specifications and Details for Construction. The Contractor shall be familiar with WSSC Standards and Details. All applicable work will be in compliance with these Standards. In the descriptions below, entire groups of work are described as if to be completed as single units of work. The Contractor is solely responsible for the means and methods of safe and secure completion of this work. The Contractor shall provide all features of temporary weather protection necessary; and the Contractor shall secure the work zone during the construction period to prevent damage.

The project scope of work includes but is not limited to the following:

1. Furnish and install 800 feet of 8” SDR-35 PVC sewer main, 120 feet of 6 inch SDR-35 PVC sewer main, and 264 of 4 inch SDR-35 PVC sewer main to include manholes, surface/pavement restoration, testing, and incidental items of work as shown on the Contract Drawings, specified in Contract Documents, or as directed by the Engineer.
2. Furnish and install 534 feet of 8 inch class 54 ductile iron water main, 140 feet of 6 inch class 54 ductile iron water main, and 290 feet of 4 inch class 54 ductile iron water main to include fire hydrants, restrained joints, test pits, thrust blocks, fittings, appurtenances, erosion and sediment control, surface/pavement restoration, testing, chlorination, and incidental items of work as shown on the Contract Drawings, specified in Contract Documents, or as directed by the Engineer.
3. Coordinate and abandon the two existing wells on-site in compliance with COMAR, Montgomery County Health Department, and the Maryland Department of the Environment.
4. Tree removal and replacement tree plantings per SCP2022-00021.

SECTION 003 – ALTERNATES

DESCRIPTION:

1.1 DEFINITION

An Alternate is an amount proposed by Bidders and stated on the Bid Form for certain construction activities defined in the Bidding Requirements that may be added to or deducted from the Base Bid amount if the Owner decides to accept a corresponding change in either the amount of construction to be completed, or in the products, materials, equipment, systems or installation methods described in the Contract Documents.

1.2 COORDINATION

Coordinate Related Work and modify or adjust adjacent Work as necessary to ensure that Work affected by each accepted Alternate is complete and fully integrated into the project at no additional cost to that proposed on the Bid Form.

1.3 NOTIFICATION

Immediately following the award of the Contract, prepare and distribute to each party involved notification of the status of each Alternate. Indicate whether Alternates have been accepted, rejected or deferred for consideration at a later date.

1.4 Bidder-originated Alternates or qualifying statements will not be considered. The Owner shall have the right to accept Alternates in any order or combination.

SCHEDULE OF ALTERNATES:

2.1 Specification Sections referenced in the Schedule contain requirements for materials and methods necessary to achieve the Work described under each Alternate. Include as part of each Alternate, miscellaneous devices, accessory objects and similar items incidental to or required for a complete installation whether or not mentioned as part of the Alternate.

1. Alternate #1 – Design and Installation of Fire Sprinkler System (for both dairy barns and the “Manse” house)

Base Bid: Water main connection provided within 5’ of each building.

Alternate Bid: Connect to new water main (within 5’ of building) and bring service within the building for the two dairy barns and the “Manse” house. Design, furnish and install two dry pipe sprinkler systems in the dairy barns and one wet pipe sprinkler system in the “Manse” house that meets the requirements of the design plans. All sprinkler work is part of a delegated design process. Contractor is responsible for all design, sprinkler system layouts, hydraulic calculations, shop drawing preparation and permits.

SECTION 006 – COORDINATION

DESCRIPTION:

1.1 PLANNING THE WORK

- A. Planning: Plan activities in advance to coordinate all aspects of following in addition to other coordination activities required
 - 1. Materials, services, and equipment purchasing.
 - 2. Shipping.
 - 3. Receipt and storage at site.
 - 4. Installation, including interface with related items and interference with unrelated items.
 - 5. Inspection and testing, to extent required under Contract Documents.
 - 6. Initial start-up of equipment and operational sites.
 - 7. Completion of Work of Contract including final cleaning.

1.2 COORDINATION

- A. All Trades: Coordinate work of various sections of Specifications to ensure Work of Contract is complete and to ensure efficient and orderly sequence of installation of construction elements, with provisions for accommodating items installed later.
 - 1. In the event certain parts of work are assigned to subcontractors, be responsible ensure each subcontractor completes work and that all interfaces are properly prepared, connected and function as required.
 - 2. Assignments of Work Among Subcontractors: Sole responsibility of Contractor.
 - 3. Be responsible for assigning and coordinating work and ensuring that suppliers and installers are familiar with all requirements in Contract Documents relating to each item of work regardless of location of information in Contract Documents.
 - 4. Coordinate work of various sections of Specifications having interdependent responsibilities for furnishing, installing, connecting to, and placing in service materials and equipment.
- B. Work of Contract: Provide complete, except where otherwise specifically indicated or specified, even though Drawing or Specification Section, by itself, does not provide complete description of work.
 - 1. Related Section Paragraphs: Included in Specifications as convenience and shall not limit applicability of other requirements unless specifically indicated or specified.
 - 2. Provide all items and services required to carefully interface and to connect with other work.
 - 3. Coordinate all work to be completed in the order of the sequence of construction.
- C. Equipment: Verify characteristics of elements of interrelated operating equipment are

compatible; coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.

- D. Work of Others: Ascertain nature and extent of work by others. Coordinate with their work and cooperate to minimize interference.
- E. In event Work under this Contract obstructs or impedes passage or work of others, remove such obstructions and impediments expeditiously and make provisions to prevent delay and provide access for others.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

MEASUREMENT AND PAYMENT:

Not Used

SECTION 007 – FIELD ENGINEERING

DESCRIPTION:

1.1 SUMMARY

- A. Section Includes: Field engineering services required for proper execution and completion of work under this Contract.
- B. Related Sections
 - 1. Record Documents: Section 016 - Contract Closeout.

1.2 SITE SURVEY

- A. Survey: Prepared for Owner by his separate consultant.
 - 1. Such data is offered solely for reference and is not part of Contract Documents.
 - 2. Data contained in survey is believed to be reliable; however, Owner and Engineer do not guarantee its accuracy or completeness.

1.3 SUBMITTALS

- A. Quality Control Submittals to comply with the pertinent provisions of Category 000.
 - 1. Documentation and Records: Maintain complete and accurate log of control and survey work as it progresses. On request of Owner, submit documentation to verify accuracy of field engineering work.
 - 2. Completion Certificate: Upon completion of work, submit certificate to Owner signed by Contractor certifying that elevations and locations are in conformance with Contract Documents. Note any items of nonconformance.

1.4 QUALITY ASSURANCE

- A. The contractor is responsible for location of building and major site elements; establishment of building horizontal and vertical controls; installation of control stakes as required; and final certification that finish grading has been completed within tolerances specified.
- B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.5 PROJECT SURVEY REQUIREMENTS

- A. Reference Points
 - 1. Engineer: Identify existing control points indicated on Drawings and site survey.
 - 2. Immediately upon entering project, Contractor shall have bench marks and all other grades, lines, levels and dimensions located and marked by a certified land surveyor. Report any errors or inconsistencies to Engineer before commencing work.

3. Contractor shall have certified land surveyor verify adequacy of bench marks before construction commences.
- B. Permanent Bench Marks: Establish minimum of two permanent bench marks on site, referenced to data established by survey control points.
- C. Preservation of Monuments and Stakes: Carefully preserve monuments, bench marks, property markers, reference points and stakes.
 1. In case of his destruction of these, Contractor shall be charged with expense of replacement and shall be responsible for any mistake of loss of time that may be caused.
 2. Protect permanent monuments or bench marks which must be removed or disturbed until properly referenced for relocation.
 3. Furnish materials and assistance for proper replacement of such monuments or bench marks.
 4. Do not change or relocate reference points or items of the Work without specific approval from the Engineer.
 5. Promptly advise the Engineer when a reference point is lost or destroyed, or requires relocation because of other changes in the Work.
 - a. Upon direction of the Engineer, require the field engineer to replace reference stakes or markers.
 - b. Locate such replacements according to the original survey control.
- D. Layout and Control
 1. Site: Establish lines, levels and locations by instrumentation. Set control stakes for finish grading. Reset stakes as required during progress of work.
 2. Completion: Upon completion of work, survey site to verify that locations and elevations required by Contract Documents have been achieved within specified tolerances.

1.6 SUBMITTALS

- A. Quality Control Submittals
 1. Submit to Project Engineer the name and address of surveyor and data demonstrating qualifications of surveyor to be engaged for field engineering services.
 2. Documentation and Records: Maintain complete and accurate log of control and survey work as it progresses.
 3. Completion Certificate: Upon completion of work, submit certificate to Owner signed by Contractor certifying that elevations and locations are in conformance with Contract Documents. Note any items of nonconformance.

4. Submit survey data required by County in which work is located.
5. Submit all special certifications required by County in which work is located

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

MEASUREMENT AND PAYMENT:

Not Used

SECTION 008 – PROJECT MEETINGS

DESCRIPTION:

1.1 SCOPE

- A. To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, the Owner and/or Engineer will conduct project meetings throughout the construction period.

1.2 RELATED WORK

- A. The Contractor's relations with his Subcontractors and materials suppliers, and discussions relative thereto, are the Contractor's responsibility and normally are not part of project meetings content.

1.3 QUALITY ASSURANCE

- A. For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the project meetings.

MATERIALS:

Not Used

CONSTRUCTION:

3.1 PRECONSTRUCTION CONFERENCES

- A. Preconstruction and Contract Accomplishment Conference: Meeting will be scheduled by Owner and/or Engineer within 15 working days after the Owner has issued the Purchase Order.
 - 1. Representatives of Owner, Washington Suburban Sanitary Commission (WSSC) Pipeline Construction Division Contract Manager, the Engineer and Contractor (including Contractor's Project Manager and Field Superintendent) shall attend.
 - 2. Administrative requirements such as products lists, schedule of values, payment applications, progress charts, submittal procedures, quality assurance, quality control, change order procedures, testing and acceptance, and project closeout will be reviewed in detail.
 - a. Outstanding submittals required before start of construction shall be submitted at this meeting.
- B. Site Mobilization Conference: Meeting will be scheduled by Owner and/or Engineer at site immediately prior to Contractor move-in. Representatives of Contractor, Owner, Engineer and Engineer's Consultants will be present. Job site procedures to include following items will be discussed:
 - 1. Procedures for maintaining Project Record Documents.
 - 2. Owner's requirements.

3. Construction facilities and controls.
4. Security and housekeeping procedures.
5. Materials testing.
6. Requirements of start-up trades.
7. Construction layout.
8. Communications with Engineer's Consultants.
9. Access to and use of site in relation to continued use of existing facilities.

3.2 PROGRESS MEETINGS

- A. Meetings: Contractor, including project manager and field superintendent, shall attend virtual monthly meetings. Representatives of Owner and Engineer will attend. Also invited as appropriate to items under discussion, will be selected subcontractors and suppliers and Engineer's consultants. Following items will be discussed:
1. Review of work progress since previous meetings.
 2. Field observations, problems, conflicts.
 3. Problems which impede construction schedule.
 4. Review of off-site fabrication, delivery schedules.
 5. Corrective measures and procedures to regain projected schedule.
 6. Revisions to construction schedule.
 7. Plan progress, schedule during succeeding work period.
 8. Coordination of schedules.
 9. Maintenance of quality standards.
 10. Review submittal schedules; expedite as required.
 11. Review proposed changes for effect on subcontractors, construction schedule and completion date.
 12. Coordination of separate contracts.
 13. Other business as required.
- B. Agenda and Minutes: Owner and/or Engineer shall establish agenda, subject to Owner review, and keep and distribute within five working days, minutes of progress meetings and lists of those present and others as directed.
1. Contractor: Advise Owner and Engineer at least 24 hours in advance of meeting regarding items added to agenda.
 2. Persons Representing Contractor at Meetings: Have authority to commit Contractor to solutions agreed upon in meetings. To maximum extent possible, assign same person or persons to represent Contractor at meetings throughout progress of work.
 3. Contractor to revise construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule within 7 days of the progress meeting.
- C. Coordination Meetings: Progress meetings shall in no way be considered substitute for Contractor/subcontractor coordination meetings.

SECTION 009 – SUBMITTALS

DESCRIPTION:

1.1 SCOPE

- A. Make submittals required by the Contract Documents to the Engineer, and revise and resubmit as necessary to establish compliance with the specified requirements.

1.2 RELATED WORK

- A. Individual requirements for submittals also may be described in pertinent Sections of these Specifications.
- B. Maintain a record document set of all approved submittal documents under the provisions of Category 000.

1.3 WORK NOT INCLUDED

- A. Submittals not required will not be reviewed by the Engineer.

1.4 QUALITY ASSURANCE

- A. Coordination of submittals
 - 1. Prior to each submittal, carefully review and coordinate all aspects of each item being submitted.
 - 2. Verify that each item and the submittal for it conform in all respects with the specified requirements.
 - 3. Verify all field measurements and conditions prior to submission.
 - 4. By affixing the Contractor's signature to each submittal, certify that this coordination has been performed.
 - 5. Each drawing submittal shall be certified by the Contractor with the following stamp:
 - a. "This is to certify that the specification requirements have been met and all dimensions, conditions and quantities are verified as shown and/or corrected on these drawings.
Signed for _____"
Contractor

1.5 SUBMITTALS

- A. Make submittals of Shop Drawings, Samples, and other items in accordance with the provisions of this Section.

MATERIALS:

2.1 SHOP DRAWINGS

- A. Scale and measurements: Make Shop Drawings accurately to a scale sufficiently large to show all pertinent aspects of the item and its method of connection to the Work.
- B. Types of prints required
 - 1. Submit Shop Drawings: A PDF of the shop drawing set shall be submitted. If Contractor needs hard copies of the shop drawings, then the number of sets

submitted shall be equal to the number required to be returned to the Contractor **plus** three (3), which is the number of sets to be retained by the Engineer and Owner.

2. Unless absolutely necessary, the size of Shop Drawings shall not exceed 24"x36". Provide space on all Drawings for approval stamps and brief review comments.

2.2 MANUFACTURERS' LITERATURE

- A. Manufacturers' data shall be defined to include, but not be limited to, catalogue cuts, technical descriptive brochures, performance charts, test reports, wiring diagrams, details, specifications, and other printed literature or bulletins issued or provided by the product manufacturers. A PDF of data shall be submitted. If Contractor needs hard copies, then the number of sets of data submitted shall be equal to the number required to be returned to the Contractor **plus** three (3), which is the number of sets to be retained by the Engineer and Owner. Upon receipt, the Engineer will mark corrections, stamp copies, and return those additional copies to the Contractor. If resubmittal is necessary, repeat process until approval has been obtained.
- B. Manufacturers' data for equipment: Include materials, type, performance, characteristics, voltage, phase, capacity, and similar data. Provide wiring diagrams when applicable. Submittals indicating catalogue, model, and serial numbers representing specified equipment will be assumed to comply with the Contract Documents in all respects.
- C. Where contents of submitted literature from manufacturers includes data not pertinent to the submittal, clearly show which portions of the contents is being submitted for review.

2.3 SAMPLES

- A. Provide Sample or Samples identical to the precise article proposed to be provided. Identify as described under "Identification of submittals" below.
- B. Number of Samples required
 1. Unless otherwise specified, submit Samples in the quantity which is required to be returned, plus two which will be retained by the Engineer and Owner.
 2. By prearrangement in specific cases, a single Sample may be submitted for review and, when approved, be installed in the Work at a location agreed upon by the Engineer.

2.4 COLORS AND PATTERNS

- A. Unless the precise color and pattern is specifically called out in the Contract Documents, and whenever a choice of color or pattern is available in the specified products, submit accurate color and pattern charts to the Engineer for selection.

2.5 CERTIFICATIONS

- A. Provide such certification as is required per pertinent sections of these specifications. A minimum of two originals and one copy of the Certification shall be forwarded.
- B. Where Certificates are specified, show on each certification name and location of work, name and address of Contractor, quantity and date or dates of shipment or delivery to which certificate applies, and name of manufacturer.
- C. Certification: In form of letter or company standard forms, signed by officer of

- manufacturer (not vendor, agent, etc.).
- D. Certification: Certify that materials or equipment meet or exceed specified requirements.
- E. Laboratory Test Reports: Show date of testing, specified requirements for which testing was performed, and results of tests.

2.6 EQUIPMENT OPERATING AND MAINTENANCE DATA

- A. Provide Operating, Maintenance and Product data manuals as described in Category 000 of these Specifications.

2.7 UTILITY APPROVALS

- A. Approval of utilities or other public authorities having jurisdiction shall be obtained and reflected on all affected submittals.

2.8 SCHEDULE OF VALUES

- A. Form: Typed schedule on 8-1/2 inch by 11 inch paper; Contractor's standard form or media-driven printout will be considered upon request.
- B. Format: Table of Contents of Project Manual.
 - 1. Identify each line item with number and title of major specification sections.
 - 2. Unit Cost Allowances: Give quantities measured from Contract Documents multiplied by unit cost to total for item.
 - 3. Include proportional amount of Contractor's overhead and profit in each line item.
 - 4. Provide schedule to list change orders for each application of payment.

2.9 PROGRESS SCHEDULE

- 1. Prepare and submit in accordance with General and Supplementary Conditions.

CONSTRUCTION:

3.1 DEVIATIONS FROM CONTRACT DOCUMENTS

- A. Clearly mark all deviations in a conspicuous manner indicating component and system variations, additions and deletions, revised equipment locations, construction detail variations, substitutions, and similar changes or deviations. Indicate all dimensions affected by proposed deviations. All variations from the Contract Documents not brought to the attention of the Engineer shall be the sole responsibility of the Contractor even though such submittal has been accepted.

3.2 IDENTIFICATION OF SUBMITTALS

- A. Consecutively number all submittals.
 - 1. When material is resubmitted for any reason, transmit under a new letter of transmittal and with the original transmittal number and a revision designation beginning with R#, where # indicates the resubmittal number.
 - 2. All changes should be clearly designated as to revisions made. No consideration will be allowed for submittal revision labor made to coordinate revised, changed, adjusted details or scope of Work.

- B. Accompany each submittal and resubmittal with a letter of transmittal showing all

information required for identification and checking. Letter of transmittal should make reference to the applicable drawing numbers, specification sections and submittal schedule item number to which each submittal applies.

- C. On at least the first page of each submittal, and elsewhere as required for positive identification, show the submittal number in which the item was included.
- D. Each submittal should indicate supplier/installer's name, phone number and the specific location(s) of the submitted product in the project.
- E. Maintain an accurate submittal log for the duration of the Work, showing current status of all submittals at all times. Make the submittal log available to the Owner/Engineer for his review upon request. List submittals and resubmittals together. Contractor shall provide an updated submittal log for review at each progress meeting.

3.3 GROUPING OF SUBMITTALS

- A. Unless otherwise specified, make submittals in groups containing all associated items to assure that information is available for checking each item when it is received.
 - 1. Partial submittals may be rejected as not complying with the provisions of the Contract.
 - 2. The Contractor may be held liable for delays so occasioned.

3.4 TIMING OF SUBMITTALS

- A. The Contractor shall submit within thirty (30) calendar days of Contract award a submittal schedule listing all items by number and dates of submittal, and lead time for each item with particular note of priority items to be reviewed. All submittals shall be submitted in an orderly sequence with priority items clearly identified.
- B. A complete listing of materials and their associated costs, broken down by specification section, shall be provided by the Contractor within thirty (30) calendar days after the Notice to Proceed.
- C. All other submittals by the General Contractor should be made within 45 calendar days of the Notice to Proceed or far enough in advance of scheduled dates for installation to provide time required for reviews, for securing necessary approvals, for possible revisions and resubmittals, and for placing orders and securing delivery, whichever comes first.
- D. Where it is shown that the Contractor has neglected to submit shop drawings on a timely basis or to place his orders for materials and labor early enough to conform with materials and labor requirements, color schemes, etc., such failure shall not be deemed as legitimate cause for delay.
- E. In scheduling, allow at least five (5) working days for review by the Engineer following his receipt of the submittal.

3.5 ENGINEER'S REVIEW

- A. Review by the Engineer does not relieve the Contractor from responsibility for errors which may exist in the submitted data.
- B. Revisions

1. Make revisions required by the Engineer.
2. If the Contractor considers any required revision to be a change, he shall so notify the Engineer as provided for in the General Conditions.
3. Make only those revisions directed or approved by the Engineer.

C. Engineer's approval

D. Until approval has been given by the Engineer, any materials or items to be so approved must not be fabricated or incorporated in the Work. The Engineer's approval will be only general in nature and shall not be construed as permitting any departure from Contract requirements, or as relieving the Contractor of responsibility for any errors concerning details, dimensions, materials, etc. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, the Contractor shall describe such variation in his letter of transmittal. If acceptable, the Engineer may approve any or all such variations, subject to proper adjustment in Contract price. If the Contractor fails to describe such variation, he shall not be relieved of the responsibility for executing the Work in accordance with the Contract, even though such drawings have been approved.

1. Acceptance shall not be construed as a complete check but will indicate only that the general method of design, fabrication, and detailing is consistent with the design intent and that errors and discrepancies observed when reviewed have been noted. Acceptance of a separate item shall not be interpreted as an approval of an assembly in which the item functions. The right is reserved by the Engineer to require submission of additional detail, shop, erection or setting drawings and of any schedules for any part of Work, whether or not specifically mentioned in the Project Specifications, where substitutions or modifications are proposed by the Contractor, or where such information is essential to the proper assembly, coordination or execution of Work under the Contract.
2. Review and acceptance shall not relieve the Contractor from responsibility for errors in shop drawings or for proper coordination assembly of materials and equipment with other Work, nor from the responsibility of furnishing materials and labor not indicated on approved shop drawings, but required by the Contract Documents for completion of Work.

3.6 JOB SITE DOCUMENTS

- A. Documents: Keep complete set of accepted Shop Drawings or Product Data at project site.

3.7 FIELD MEASUREMENTS

- A. Field measurements are the responsibility of the Contractor.

SECTION 010 – SUBSTITUTIONS

DESCRIPTION:

1.1 SUMMARY

- A. All requests for product and material substitutions shall be received in writing by the Engineer for approval a minimum of ten (10) calendar days prior to receipt of bids. Requests received after that time will not be considered.

1.2 PRODUCTS NOT CONSIDERED SUBSTITUTIONS

- A. Revisions to Contract Documents requested by the Owner or Engineer.
- B. Specified or listed acceptable product options and alternative construction methods indicated in Contract Documents.
- C. Revisions to Contract Documents required to conform with governing regulations and orders issued by governing authorities.

MATERIALS:

Not Used

CONSTRUCTION:

3.1 REQUESTS FOR SUBSTITUTION

- A. Requests for substitution must be submitted in writing. Requests for substitution shall not be submitted by facsimile ("faxed").
 - 1. Submit two (2) copies of "Request for Substitution" cover letter with the following information:
 - a. Project Name
 - b. Today's date
 - c. Firm/Manufacturer's name with street address and phone number
 - d. Bid Date
 - e. Referenced section of project specifications
 - f. Proposed product
 - g. Brief description of proposed request for substitution listing any required changes to other parts of the work necessary to accommodate proposed substitution.
 - h. Estimated savings or cost increase over specified product(s), including cost of changes to other parts of the work required to accommodate proposed substitution.
 - i. Impact on construction schedule
 - 2. Submit separate cover letters for each "Request for Substitution."
 - 3. Submit three (3) photocopies of referenced section of project specifications with paragraph by paragraph comparison of specified product and proposed substitution product listed on attached sheets of similar format.

4. Submit manufacturer's descriptive literature, copy of guarantee and recommended installation instructions for proposed substitution product.
5. Submit product samples if requested by Engineer. Bidders shall call Engineer to determine if samples are required.
6. If requested by the Engineer as a means of determining whether or not a material or item submitted by the Contractor is equal to the standards established by the Contract Documents, the Contractor shall submit data for both the specified and proposed item or materials in the form of engineering data or calculations; results of tests conducted by the independent testing laboratories; experience records of the material or equipment used under conditions similar to that proposed in the Project; any other means required by the Engineer to establish the fact that the proposed item is equal to the specified.
7. The furnishing of all items above, will be at the expense of the Contractor and without cost to the Owner.

3.2 EVALUATION

- A. The Engineer shall evaluate all information submitted and recommend to Owner acceptance or rejection of request for substitution. Incomplete submittals will not be considered. Owner will make final decision. If proposed substitution is accepted, bidders will be notified by means of an Addendum to the Contract. If a decision on a request for substitution cannot be made or obtained before receipt of bids, bidders must use the product(s) specified by name.

3.3 COORDINATION

- A. The Contractor is responsible for identifying and implementing all requirements, material process or otherwise, which are affected by permissible substitutions or deviations from products or assemblies described in the Contract Documents to complete work as described in the Bid and Contract Documents.

3.4 CONTRACTOR'S REPRESENTATIONS

- A. The undersigned, having thoroughly investigated the proposed substitution, hereby states that (a) the substitution is equal or superior in all respects to the originally specified product, (b) the same warranty or warranties as originally specified will be provided, (c) the Contractor will bear all costs for redesign, re-engineering, and special inspection or testing caused by acceptance of the substitution, (d) the Contractor will coordinate the incorporation of the proposed substitution into the Work, (e) make any and all modifications to other parts of the Work as may be necessary and approved by the Owner and Engineer to make all parts of the Work complete and functioning at no additional cost to the Owner, (f) Contractor waives future claims for added costs to any party caused by the proposed substitution, and (g) Contractor assumes all responsibility for direct or indirect cost and/ or time impacts as a result of the acceptance of the substitution.

3.5 SUBSTITUTION REQUEST FORM

A. Substitution Request Form: See next page.

SUBSTITUTION REQUEST FORM

TO _____ PROJECT _____

We hereby submit for your consideration the following product instead of the specified item for the above project.

Section _____ Paragraph _____ Specified Item _____

Proposed Substitution _____

Attach complete technical data, including laboratory tests, if applicable. Include complete information on changes to Drawings and/or Specifications which proposed substitution will require for its proper installation. Fill in the Blanks below:

A. Reason for substitution: _____

B. Changes to Drawings and/or Specifications required by proposed substitution: _____

C. Will the undersigned pay for changes to the site design, including architectural, engineering and detailing costs caused by the requested substitution? Yes _____ No _____.

D. What effect does substitution have on other trades? _____

E. What effect does substitution have on construction schedule? _____

F. Differences between proposed substitution and specified item? _____

G. Manufacturer's guarantees of the proposed and specified items are:

_____ Same _____ Different (explain on attachment)

The undersigned states that the function, appearance and quality are equivalent or superior to the specified item.

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

SUBMITTED by:

For Use by Design Consultant:

Signature _____ Title _____ . ___ Accepted ___ Accepted As Noted
Firm _____ . ___ Not Accepted ___ Received Too Late
Address _____ . By _____
Date _____ . Dated _____
Telephone _____ . Remarks _____

SECTION 011 – QUALITY CONTROL

DESCRIPTION:

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with the Contract Document Requirements.
 - 1. Specified tests, inspection, and related actions do not limit Contractor’s other quality-assurance and -control procedures that facilitate compliance with Contract Requirements.
 - 2. Requirements for Contractor to provide quality-assurance and -control services required by the Owner, Washington Suburban Sanitary Commission (“WSSC”), or authorities having jurisdiction are not limited by provisions of this section.
 - 3. Specific test and inspection requirements are not specific in this Section.

1.2 QUALITY ASSURANCE

- A. Laboratory: Accredited to operate in State of Maryland & certified by SHA
- B. Laboratory: Carry \$1,000,000 professional liability insurance.

1.3 SELECTION AND PAYMENT

- A. Contractor shall employ and pay for services of independent testing laboratory to perform inspection and testing as directed. Costs for these services shall NOT be included in the Base Bid contract Sum.

1.4 SUBMITTALS

- A. Laboratory: After each inspection and test, promptly distribute copies of test and inspection reports made by testing laboratories as follows:

- 1 copy- Contractor
- 1 copy- Applicable Supplier or Subcontractor
- 1 copy- Owner
- 1 copy- Engineer
- Other copies as directed.

- 1. Test Reports: Include date issued, Project title and number, name of inspector, date and time of sampling or inspection, identification of product and specifications section, location in the Project, type of inspection or test, date of test, results of test, and conformance with Contract Documents.
- 2. When requested by Engineer, provide interpretation of test results

1.5 RESPONSIBILITIES

- A. Testing Laboratory
 - 1. Test samples submitted by Contractor as requested by the Testing Laboratory
 - 2. Provide qualified personnel at site after due notice; cooperate with Engineer and Contractor in performance of services.
 - 3. Perform specified inspection, sampling, and testing of products in accordance with specified requirements.
 - a. Services: Performed in accordance with requirements of governing authorities and with Reference Standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Engineer and Contractor of observed irregularities or nonconformance of work or products.
 - 6. Perform additional inspections and tests required by Owner.
 - 7. Attend preconstruction conferences and progress meetings.

- B. Contractor
 - 1. Notification: Notify testing laboratory at least 72 hours in advance of time for need for testing.
 - 2. Furnish required samples without charge and give sufficient notice of placing of orders to permit testing.
 - 3. Cooperate with testing laboratory personnel and provide access to work.
 - 4. Provide incidental labor and facilities to provide access to work to be tested, to obtain and handle samples at site or at source of products to be tested, to facilitate tests and inspections, and for storage and curing of test samples.
 - 5. Do not use materials or equipment represented by samples until tests, if required, have been made and materials or equipment found to be acceptable.
 - 6. Do not incorporate any product into work which becomes unfit for use after acceptance thereof.
 - 7. Equipment Testing and Demonstrations: Provide fuel, accessories, and tools required to operate equipment for tests and demonstrations.

- C. Limits on Testing Laboratory Authority
 - 1. May not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. May not approve or accept any portion of the Work.
 - 3. May not assume any duties of Contractor
 - 4. Has no authority to stop work.

1.6 TESTING AND INSPECTIONS - GENERAL

- A. Testing and Inspection: Materials or equipment proposed to be used may be tested or inspected at any time during their preparation or use. Products may be sampled either prior to shipment or after being received at site of work.
 - 1. Specific information concerning testing methods, sample sizes, etc., is included under applicable sections of Specifications.
 - 2. Any modification of, or elaboration on, these test procedures included for specific materials under their respective sections in Specifications shall take precedence over these procedures.

1.7 TESTING AND INSPECTIONS PAID FOR BY THE CONTRACTOR

- A. Control Tests and Inspections of Fill and Backfill: At such times and in such numbers as specified in Section 201 - Earthwork, with Geotechnical Report and as required by local building authority.
- B. Control Tests and Inspections of Asphalt Paving Base and Finish Courses: At such times and in such numbers as specified in Section 504 – Hot Mix Asphalt Pavement.
- C. Control Tests and Inspections of Concrete Work: At such times and in such numbers as specified in Sections 520 – Plain and Reinforced Portland Cement Concrete Pavements, and as required by local building authority.

1.8 OTHER TESTING AND INSPECTION

- A. Following Testing and Inspection: Performed at expense of Contractor:
 - 1. Other Tests and Inspections: Other tests and inspections required by Contract Documents not listed in article above. With the exception of item A.3, below, the Contractor shall not use the same testing company as the Owner for any listed tests.
 - 2. Tests and inspections required by applicable codes and local public agencies having jurisdiction over Work.
 - 3. Additional tests and re-inspections required because of tests or inspections that fail subject to following conditions:
 - a. Quantity and Nature of Tests: Determined by Engineer.
 - b. Tests: Taken in presence of Engineer.
 - c. Proof of Noncompliance: Contractor liable for corrective action which Engineer feels is required including complete removal and replacement of defective material
 - 4. Material Substitution: Tests of materials or equipment offered as substitute for specified item on which test may be required in order to prove its compliance with Specifications.
- B. Contractor: May have tests performed on material and equipment for his own information and job control so long as Owner does not assume responsibility for costs or for giving them consideration when appraising quality of materials.

1.9 MOCK-UPS

- A. Mock-ups: When required by individual sections, erect complete, full scale mock-up of assembly at Project site at location as directed.
 - 1. Remove at completion of Project when accepted by Engineer, unless otherwise specified.

1.10 CONTRACTOR'S QUALITY CONTROL SYSTEM

- A. General: Maintain quality control over suppliers, manufacturers, products, service, site conditions, and workmanship to produce work of specified quality.
 - 1. Workmanship: Comply with industry standards except when more restrictive tolerances or specified requirements require more rigid standards for more precise workmanship.
 - 2. Perform work by persons qualified to produce workmanship of specified quality.
- B. Quality Control: Establish system to perform sufficient inspection and tests of all items

of work, including that of subcontractors, to ensure conformance to Contract Documents for materials, workmanship, construction, finish, functional performance and identification.

1. Control System: Establish for all construction except where Contract Documents provide for specific compliance tests by testing laboratories and engineers employed by Owner.
 2. Control System: Specifically include all testing required by various sections of Specifications.
- C. Quality Control System: Means by which Contractor assures himself that construction complies with requirements of Contract Documents.
1. Controls: Adequate to cover all construction operations and keyed to proposed construction Schedule.
- D. Records: Maintain correct records on appropriate form for all inspections and tests performed, Instructions received from Engineer and actions taken as result of those instructions.
1. Records: Include evidence that required inspections or tests have been performed (including type and number of inspections or tests, nature of defects, causes for rejection, etc.) proposed or directed remedial action, and corrective action taken.
 2. Document inspections and tests as required by each section of Specifications

1.11 INSTALLATION - GENERAL

- A. Examination
1. Verification of Conditions: Require installer/applicator/erector of each major unit of work to inspect substrate to receive work and conditions under which work is to be performed.
 2. Installer/Applicator/Erector
 - a. Verify layout of work before beginning installation.
 - b. Report unsatisfactory conditions to General Contractor in writing with copy to Engineer/Owner.
 - c. Do not proceed with work until unsatisfactory conditions have been corrected to satisfaction of installer.
 - d. Beginning of work means acceptance of existing conditions by applicator.
 3. Pre-installation Conferences per Category 000.
- B. Manufacturer's Instructions: Where installations include manufactured products, comply with manufacturer's applicable printed instructions and recommendations for installation, to extent that these instructions and recommendations are more explicit or more stringent than requirements specified or indicated.
- C. Attachment: Provide attachment and connection devices and methods for securing work to withstand stresses, vibration, and racking.
1. Secure work true to line and level, and within specified tolerances, or if not specified, industry recognized tolerances.
 2. Allow for expansion and building movement.
 3. Physically separate, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.

4. Exposed Joints
 - a. Provide uniform joint width.
 - b. Arrange joints to obtain best visual effect.
 - c. Refer questionable visual-effect choices to Engineer for final decision.

- D. Measurements and Dimensions: Recheck as integral step of starting each installation.

- E. Climatic Conditions and Project Status: Install each unit of work under conditions to ensure best possible results in coordination with entire project.
 1. Isolate each unit of work from incompatible work as necessary to prevent deterioration.
 2. Coordinate enclosure of work with required inspections and tests to minimize necessity of uncovering work for those purposes.

- F. Mounting Heights: Where not indicated, mount individual units of work at industry recognized standard mounting heights for particular application indicated.
 1. Comply with ADA mounting height requirements.
 2. Refer questionable mounting heights choices to Engineer for final decision.

- G. Manufacturer's Field Service and Reports: When specified in individual sections, require manufacturer's to provide qualified personnel to inspect field conditions, conditions of surfaces and installation, quality of workmanship, to make appropriate recommendations and ensure that specified warranties and bonds shall be provided.
 1. Manufacturer's Representative: After each inspection, submit written report to installer, Contractor, and Engineer listing observations and recommendations.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 012 – CONSTRUCTION FACILITIES & TEMPORARY CONTROLS

DESCRIPTION:

1.1 SCOPE

- A. Provide temporary facilities and controls needed for the Work including, but not necessarily limited to:
 - 1. Temporary utilities such as heat, water, electricity, and telephone
 - 2. Field Offices and Sheds
 - 3. Sanitary facilities
 - 4. Enclosures such as tarpaulins, barricades, and canopies
 - 5. Temporary fencing of the construction site
 - 6. Project sign

1.2 RELATED WORK

- A. Except that equipment furnished by subcontractors shall comply with requirements of pertinent safety regulations. Such equipment normally furnished by the individual trades in execution of their own portions of the Work are not part of this Section.
- B. Permanent installation and hookup of the various utility lines are described in other Sections.

MATERIALS:

2.1 UTILITIES

- A. Cold Weather Protection
 - 1. The Contractor shall provide at his own expense all cold weather protection, temporary heat and fuel, and powered ventilation as necessary to carry on the Work during inclement weather, to protect all Work and materials against injury from dampness and cold, to provide suitable conditions for the installation and curing of materials until final acceptance. Equipment for heating shall be U.L. approved and shall have automatic temperature controls.
 - 2. Refer to requirements in other sections of this specification for temperatures to be provided and maintained for installation and curing under the various trades. The method of heating and the type of fuel and equipment used shall be subject to approval by the Engineer. Open flame type heaters will not be permitted after the building is enclosed. The permanent heating system for the building shall be used to provide temporary heating as hereinafter specified.
 - 3. The heating requirements during construction are divided into "Cold Weather Protection" and "Temporary Heat" as hereinafter specified.
 - 4. Cold Weather Protection shall be required from the start of the Project up to the time when the Work is entirely closed in and the heating apparatus is in permanent position, ready for operation on a temporary basis, by the Contractor. This Work shall include protection of Work exposed to the elements against adverse dampness and cold, by covering, enclosing, and heating materials and Work under construction, and providing suitable working conditions for all trades

employed on the Work. This cold weather protection shall be provided by the Contractor at his own expense.

B. Temporary Water Service

1. The Contractor shall provide, and later remove, temporary water service or secure separate water source, as required. The Contractor assumes responsibility for payment of all temporary utilities used. Any costs for meter reading or transferring the account shall be borne by the Contractor.

C. Temporary Electric Service

1. The Contractor shall provide, and later remove, temporary electrical service and/or generator, as required. The Contractor assumes responsibility for payment of all temporary utilities used. Any costs for meter reading or transferring the account shall be borne by the Contractor.

2.2 FIELD OFFICES AND SHEDS

A. Field Offices

1. Contractor shall provide and maintain a suitable temporary field office at the project site for his own use as necessary. Locate office at location approved by Owner. Any temporary electric and telephone connections to this field office will be made by and the sole responsibility of the Contractor.
2. Contractor shall secure all required permits for field offices at its own expense.

B. Sheds

1. Contractor shall provide and maintain such additional offices, storage sheds and other temporary buildings or trailers on the project site as required for his own use. Subcontractors shall provide their own temporary sheds or trailers. Locations of sheds and trailers shall be approved by Owner and Engineer.
2. Contractor shall secure all required permits for sheds at its own expense.

2.3 SANITARY FACILITIES

A. Temporary Toilets

1. The Contractor shall provide and maintain an adequate number of approved prefabricated temporary toilets with proper enclosures as necessary for use of workmen. Keep toilets clean and comply with all applicable health and sanitary regulations.

2.4 ENCLOSURES

- A. Provide and maintain for the duration of construction all scaffolds, tarpaulins, canopies, warning signs, steps, platforms, bridges, egress doors and other temporary construction necessary for proper completion of the Work in compliance with pertinent safety and other regulations. Security, emergency egress, fire alarm and suppression systems shall remain operational in all occupied areas.

2.5 TEMPORARY FENCING

- A. Provide and maintain for the duration of construction a temporary fence of design, type and extent needed to prevent entry onto the Work site including all areas and portions thereof by unauthorized persons.

2.6 TEMPORARY SIGNS

- A. General Contractor's sign may be mounted at the site, 4'x4' maximum size.
- B. Project Identification Sign
 1. One painted sign of construction, design, and content as specified by Owner. Background color shall be blue. Sign shall have an area of 32 sq ft, mounted with its bottom edge 6 feet above ground.
 2. Sign Lettering: Series C of Standard Alphabet for Highway Signs, Public Roads Administration, Federal Works Agency.
- C. Project Informational Signs
 1. Painted informational signs of same colors and lettering as Project Identification sign, or standard products; size lettering for legibility at 100 feet distance.
 2. Provide sign at each field office, storage shed, and directional signs to direct traffic into and within site. Relocate as Work progress requires.
 3. Provide governing traffic agency directional traffic signs to and within site.
 4. No other signs are allowed without Owner permission except those required by law.
- D. Design sign and structure of all signage to withstand 60 miles/hr wind velocity.
- E. Sign Painter: Experienced as professional sign painter for minimum three years.
- F. Finishes, Painting: Adequate to withstand weathering, fading, and chipping for duration of construction.
- G. Show content, layout, lettering, color, foundation, structure, sizes, and grades of members
- H. Sign Materials
 1. Structure and Framing: New, wood, structurally adequate.
 2. Sign Surfaces: Exterior grade plywood with medium density overlay, minimum 3/4 inches thick, standard large sizes to minimize joints.
 3. Rough Hardware: Galvanized or brass.
 4. Paint and Primers: Exterior quality, two coats; sign background of color as selected.
 5. Lettering: Exterior quality paint, contrasting colors as selected.
 - a. Pre-cut vinyl self-adhesive products are acceptable in lieu of painted lettering.
- I. Installation
 1. Install project identification sign within fifteen (15) days after date fixed by Owner- Contractor Agreement.
 2. Erect at location designated by the Owner and Engineer, with high visibility and adjacent to main entrance to site.
 3. Erect supports and framing on secure foundation, rigidly braced and framed to resist wind loadings.

4. Install sign surface plumb and level, with butt joints. Anchor securely.
 5. Paint exposed surfaces of sign, supports, and framing.
- J. Maintenance: Maintain signs and supports clean, repair deterioration and damage.
- K. Removal: Remove signs, framing, supports, and foundations at completion of Project and restore area.
- L. Except as otherwise specifically approved by the Owner/Engineer, do not permit other signs or advertising on the job site.

CONSTRUCTION:

3.1 MAINTENANCE AND REMOVAL

- A. Maintain temporary facilities and controls as long as needed for safe and proper completion of the Work.
- B. Remove such temporary facilities and controls as rapidly as progress of the Work will permit, or as directed by the Engineer

SECTION 013 – SITE PROCEDURES & CONTROLS

DESCRIPTION:

1.1 REQUIREMENTS INCLUDED

- A. Provide site procedures, protection of property, site controls, housekeeping and other work required to complete the project.
- B. Remove temporary materials, equipment and construction by the time of substantial completion.

1.2 CONTROLS

- A. Security: Be responsible for project security. Protect and secure the site, building areas in Contractors possession, materials and equipment from theft and damage, by whatever reasonable means are effective or as directed by the Owner during construction.
- B. Parking and Traffic Control
 - 1. Comply with local regulations regarding parking and traffic control.
 - 2. Coordinate and comply with local authorities regarding any necessary diversion of streets or sidewalks.
 - 3. No materials or supplies shall be stacked on existing streets or sidewalks without written authorization from the local authority having jurisdiction.
- C. Snow and Ice Removal
 - 1. Keep access to building and work areas clear of snow while work is in progress. Do not allow snow and ice to accumulate over surfaces that can be damaged upon thawing.
 - 2. Do not allow snow and ice to accumulate so as to overload or otherwise endanger any part of the work.
- D. Site Access and Protection
 - 1. Maintain in good and usable condition the necessary access to the premises.
 - 2. Protect all permanent site improvements to remain such as curbs, pavement and utilities.
 - 3. Maintain access for fire-fighting equipment.

1.3 PROTECTION

- A. Protection for Persons and Property
 - 1. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the project.
 - 2. Do not permit trenches to remain open for without adequate board covering or fencing
 - 3. Provide barriers, signs, warning lights, temporary exit lights, and similar safety measures to protect pedestrian traffic from injury from construction process.
 - 4. Adjacent sidewalks and alleys shall remain open for use by the public during demolition work unless permission for closing is obtained from local authorities having jurisdiction.
- B. Winter Construction and Weather Protection: Take special precautions against damage to the materials stored and work installed in freezing weather including existing sprinkler line.

Provide coverings for materials subject to damage by the elements.

- C. Fire Protection During Demolition and Construction
 - 1. Provide and maintain hand fire extinguisher suitable for fire hazards involved at convenient accessible locations during construction. Provide each storage location with at least one all-purpose approved portable fire extinguisher. Place portable extinguisher so that maximum travel distance to the nearest exit shall not exceed 75 feet. Keep CO2 type extinguisher near welding, temporary heaters and other hazardous operations.
 - 2. Avoid accumulations of combustible forms, form lumber and debris within building and vicinity.
 - 3. Store flammable or volatile liquids in the open or in small, detached structures or trailers. Handle liquids with low flash points in approved safety cans. Supervise closely the storage of paint materials and other combustible finishing and cleaning products. Do not permit oily rags to be stored in closets or other tight permanent places.
 - 4. Prohibit smoking in the vicinity of hazardous operations and locations.
 - 5. Closely supervise welding and torch cutting operations near combustible materials.
 - 6. Supervise locations and operation of temporary portable heating units and fuels.
 - 7. Take other precautions suitable for hazardous conditions at the site to prevent fire.
 - 8. Install fire suppression and standpipe system and maintain in operation, as required by authorities having jurisdiction.

1.4 HOUSEKEEPING

- A. Trash Disposal
 - 1. Keep building and site free from accumulations of waste materials. Remove cartons, crates, wrappings, lunch trash and other trash daily.
 - 2. Provide trash receptacles in convenient site locations.
 - 3. Do not burn paper, trash or other material on site
- B. Excess Material
 - 1. Remove excess and temporary materials from Owner's property.
 - 2. Keep paved public streets and thoroughfares clean, by cleaning daily, or more often if necessary, of earth and debris spillage from trucking involved in construction operations.
- C. Rodent Control
 - 1. Rodent extermination materials shall be those approved by the local Health Department or other agency having jurisdiction.
 - 2. Maintain sanitary premises and effective control of rodents during construction.

1.5 ENVIRONMENTAL PROTECTION

- A. Noise Abatement
 - 1. Comply with all local noise abatement ordinances.
 - 2. Equip internal combustion engines and compressors with mufflers to reduce noise to a minimum.
- B. Pollution Control
 - 1. Comply with all local and Federal anti-pollution ordinances.
 - 2. Keep areas dampened to prevent dust from rising due to construction.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 014 – MATERIALS AND EQUIPMENT

DESCRIPTION:

1.1 RELATED REQUIREMENTS

- A. General and Supplementary Conditions.

1.2 PRODUCTS

- A. Include material, equipment and systems.
 - 1. Comply with Specifications and referenced standards as minimum requirements.
 - 2. Components Supplied in Quantity within Specification Section: Same, interchangeable, and of one manufacturer.
 - 3. Products shall be new unless otherwise specified, free of defects, and of types specified.

1.3 TRANSPORTATION AND HANDLING

- A. Transport products by methods to avoid product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- B. Provide equipment and personnel to handle products by methods to prevent soiling or damage.
- C. Inspect shipments to assure products comply with requirements, quantities are correct, and products are undamaged.
 - 1. Reject damaged and defective items.

1.4 STORAGE AND PROTECTION

- A. Store products in accordance with manufacturer's recommendations, with seals and labels intact and legible. Store sensitive products in weather tight enclosures; maintain within temperature and humidity ranges required by manufacturer's recommendations.
 - 1. Store loose granular materials on solid surfaces in well drained area; prevent mixing with foreign matter.
- B. Exterior Storage Protection
 - 1. Fabricated Products: Place on sloped supports above ground.
 - 2. Cover products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- C. Inspection: Arrange storage to provide access and conditions for inspection. Periodically inspect to assure products are undamaged, and are maintained under recommended conditions.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 015 – STARTING OF SYSTEMS

DESCRIPTION:

1.1 SUMMARY

A. Related Sections

1. Category 000 - Contract Closeout: Operation and Maintenance Data

1.2 SYSTEMS DEMONSTRATIONS

A. Equipment Demonstrations: Upon completion of work and before inspection for substantial completion, schedule time with Engineer, and instruct Owner’s representative(s) once, in presence of Engineer, on proper operation, adjustment, and maintenance of products, equipment and systems.

1. Participants: As minimum, presenting participants shall include Contractor, appropriate subcontractor, equipment manufacturer’s representatives, and appropriate sub-subcontractors.
2. Contractor’s Representatives: Thorough knowledge of particular installation.
3. Manufacturer’s Representative: Thorough understanding of particular equipment.
4. Use operation and maintenance manuals as basis of instruction. Review contents of manuals in detail to explain all aspects of operation and maintenance.
5. Equipment Testing and Demonstrations: Provide fuel, accessories, and tools required to operate equipment for tests and demonstrations.
6. For equipment requiring seasonal operation, perform demonstration for each type of seasonal operation.
7. Successful completion of equipment demonstrations using accepted operation and maintenance data is a requirement for substantial completion. Coordinate with requirements of Category 000 – Contract Closeout.

MATERIALS:

Not Used

CONSTRUCTION:

Not Used

SECTION 016 – CONTRACT CLOSEOUT

DESCRIPTION:

- 1.1 SCOPE
 - A. Provide and orderly an efficient transfer of the completed Work to the Owner.
- 1.2 RELATED SECTIONS
 - A. Category 000 - Starting of Systems: System Demonstrations.
- 1.3 QUALITY ASSURANCE
 - A. Prior to requesting evaluation by the Engineer, use adequate means to assure that the Work is completed in accordance with the specified requirements and is ready for the requested inspection.

MATERIALS:

Not Used

CONSTRUCTION:

- 3.1 FINAL CLEANING
 - A. Cleaners: Professional cleaners with exception of cleanup of site and cleaning specifically assigned to installers and applicators under various sections of specifications.
 - B. Completion
 - 1. Entire Work Inside and Out: First-class clean condition upon completion before being accepted by Owner.
- 3.2 PROJECT RECORD DOCUMENTS
 - A. Maintain at project site one record copy of following:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Accepted Shop Drawings, Product Data and Samples.
 - 5. Change Orders.
 - 6. Other Modifications to Contract.
 - 7. Field Test Records.
 - 8. Inspection Certificates.
 - 9. Manufacturer's Certificates.
 - B. Record Documents: Do not use record documents for construction purposes. Maintain documents in clean, dry legible condition, apart from documents used for construction. Keep available for inspection.
 - C. Record Information: Label each document "Record Document".

1. Mark information with contrasting colors using ink and different colors for different systems.
 2. Keep each record current. Do not permanently conceal any work until required information is recorded.
- D. Drawings: Record following information on Contract Drawings:
1. Depth of foundation elements.
 2. Horizontal and vertical location of underground utilities.
 3. Location of internal utilities and appurtenances concealed in construction.
- E. Field changes of dimension and detail.
1. Changes by change order or field order.
 2. Details not on original Contract Drawings.
 3. Reference to related Shop Drawings and Modifications
- F. Specifications: Record following information on specifications:
1. Manufacturer, trade name, catalog number and supplier of products and items of equipment actually installed.
- G. Changes by change order or field order.
1. Other matters not originally specified.
- H. Shop Drawings: Maintain Shop Drawings as record documents recording changes made after review as specified for Drawings above.
- I. Submittal: At completion of project, deliver record documents to Engineer with transmittal letter containing date, project title and number, Contractor's name and address, title and number of each record document, and certification that each document is complete and accurate. Submittal shall be signed by Contractor.
1. Submittal and acceptance of Project Record documents is requirement for final completion.

3.3 CLOSEOUT PROCEDURES

- A. Procedures: The following project closeout procedure defines responsibilities of Contractor, Owner, and Engineer in closing project:
1. Step 1: Contractor advises Engineer in writing that he has reached "Substantial Completion" and provides list of items to be completed or corrected. Closeout may be conducted by areas or portions of work if requested by Owner.
 2. Step 2: Engineer observes work to determine if it is substantially complete, and if substantially complete, issues Certificate of Substantial Completion plus "Punch List" of items to be completed or corrected.
 - a. Prior to the issuance of a Certificate of Substantial Completion, the following actions must be performed.
 1. Notify applicable utility companies to terminate temporary services.
 2. Obtain applicable Health Department inspections and permits.
 3. Deliver all warranties to the Owner.

4. Remove all debris and trash from the project site.
3. Step 3: Contractor completes and corrects all punch list items and notifies Engineer in writing that his work is ready for final inspection. At this time, final application for payment is submitted.
 - a. Contractor shall certify that:
 1. Contract Documents have been reviewed
 2. Work has been inspected for compliance with the Contract Documents
 3. Work has been completed in accordance with the Contract Documents
 4. Equipment and systems have been tested as required, and are operational.
4. Step 4: Engineer makes final observation. When work is found to be acceptable under Contract Documents, and contract fully performed, Engineer will issue final Recommendation for Payment.

3.4 REOBSERVATION FEES

- A. Reobservation Fees: Should Contractor fail to complete and correct punch list items such that additional observations are required by Engineer, Contractor shall pay Owner for Engineer's additional services at rates as established in Owner/Engineer Agreement. If Contractor has any question with regard to any items on punch list, he shall request clarification before final evaluation.

3.5 FINAL PAPERWORK

- A. Final Paperwork: Prior to release of final payment, Contractor shall deliver following items to Engineer as described in following articles or applicable Sections of these Specifications.
 1. Inspection Certificates, as applicable.
 2. Contractor's Warranty of Materials and Workmanship.
 3. Maintenance Manuals and Parts Lists, as specified
 4. All Guarantees, Warranties and Submittals, as specified.
 5. Receipts for Extra Materials Delivered to Owner.
 6. Receipts for Miscellaneous Keys, Keying Schedule, Switches, Etc
 7. Final Application for Payment
 8. Consent of Surety to Final Payment.
 9. Contractor's Affidavit of Release of Liens (AIA Form G-706A).
 10. Project Record Documents.

3.6 INSPECTION CERTIFICATES

- A. Each subcontractor: Upon completion of work, secure in triplicate certificates from any state or local governing bodies having jurisdiction in dictating that work is in accordance with applicable codes and deliver certificates to Contractor for transmittal to Owner.

3.7 OPERATING AND MAINTENANCE DATA

- A. Provide one (1) electronic copy and (2) hardcopies of Operating and Maintenance data.
- B. Equipment Manuals
 1. Binders: 8-1/2 inch by 11 inch three ring binder with hardback, cleanable, plastic cover, 2 inch maximum ring size.
 - a. Cover: Identify each binder with typed or printed title OPERATION AND

MAINTENANCE INSTRUCTIONS, list title of Project, and identify subject matter of contents.

- b. When multiple binders are used, correlate data into related consistent groupings.
 2. Manual: Have index with tab dividers for each major equipment section to facilitate locating information on specific piece of equipment.
 - a. Identify data within each section with identification numbers as they appear on Drawings and by Specification Section and Article number.
 - b. Text: Manufacturer's printed data or type written data on 20 pound paper.
 - c. Drawings: Provide with reinforced punched binder tab. Bind in text folding larger drawings to size of text pages.
 3. Table of Contents: Title of Project; names, addresses, and telephone numbers of Engineer, Contractor; schedule of products and systems, indexed to content of volume.
 4. Manuals: Use as part of System Demonstrations per Category 000 – Starting of Systems
- C. Data: Include as minimum the following data:
1. Alphabetical list of system components, with name, address and 24-hour phone number of company responsible for servicing each item during first year of operation.
 2. Operating instructions for complete system including:
 - a. Emergency procedures for fire or failure of major equipment.
 - b. Major start, operation and shutdown procedure.
 - c. Manufacturer's printed operation and maintenance instructions.
 - d. Control Manufacturer's sequence of operation.
 3. Maintenance instructions including:
 - a. Proper lubricants and lubricating instructions for each piece of equipment.
 - b. Necessary break-in, cleaning, replacement and adjustment schedule.
 - c. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and any special operating instructions.
 - d. Maintenance Requirements: Include routine procedures and guide for troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
 4. Manufacturer's Product Data on each system and each piece of equipment including:
 - a. Description of system and component parts including function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
 - b. Panelboard Circuit Directories: Provide service characteristics, controls, and communications.
 - c. Installation instructions.
 5. Drawings and specifications.
 - a. Manufacturer's Parts Lists: Include illustrations, assembly drawings, and diagrams required for maintenance.
 - b. Complete color coded wiring diagrams (as-built) including control diagram.
 - c. Marked or changed prints locating all concealed parts and all variation from original system design.
 - d. Contractors Coordination Drawings with as-installed color coded piping diagrams.
 6. Warranties: Bind in copy of each.
 7. Schematic diagram showing component parts of system.
 8. Simplified system description and preventative maintenance program.

- D. Operating and Maintenance Data as specified in individual Sections of these Specifications.

3.8 WARRANTIES

- A. One Year Correction Period: Remedy any defects due to faulty materials or workmanship and pay for any damage to other work resulting therefrom, which shall appear in work within period of one year from date of Notice of Acceptance and in accordance with terms of any special warranties provided in Contract Documents. Owner shall give notice of observed defects with reasonable promptness.
- B. Warranty: Upon completion of work, Contractor shall deliver to Engineer in duplicate, written warranty based on provisions of Contract Documents properly signed and notarized.
1. Address warranty to Owner.
- C. Subcontractor Warranties: Include labor and material, signed by manufacturer or Subcontractor as case may be and countersigned by Subcontractor.
1. Address warranties to Owner.
 2. Deliver to Engineer upon completion of project and before or with submission of request for final payment.
- D. Extended Warranties: Deliver in duplicate manufacturer's warranties as specified and dated from date of Notice of Acceptance signed by subcontractors and manufacturers.
- E. Manufacturer Warranties: Deliver in duplicate manufacturer's warranties as specified and dated from date of Notice of Acceptance signed by manufacturer.
1. Manufacturer's Warranties: Supplement and not replace implied and express warranties provided for by Uniform commercial Code. Any statements in manufacturer's warranties denying or limiting responsibility for such implied and express warranties shall be void.
- F. Form of Submittal
1. Binders: 8-1/2 inch by 11 inch three ring binder with hardback, cleanable, plastic covers.
 2. Cover: Identify each binder with typed or printed title WARRANTIES AND BONDS, with title of Project, name, address, and telephone number of Contractor, and name of responsible principal.
 3. Table of Contents: Neatly typed, in sequence of Table of Contents of Project Manual, with each item identified with the number and title of the Specification Section in which specified and the name of product or work item.
 4. Separate each warranty or bond with index tab sheets keyed to Table of Contents listing. Provide full information using separate type sheets as necessary. List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 5. Submittal and acceptance of warranties is requirement for final completion

3.9 SPARE PARTS AND MAINTENANCE MATERIALS

- A. Submittal: Provide products, spare parts, and maintenance materials in quantities specified in each section, in addition to that used for construction of work. Coordinate with Owner, deliver to person and location as directed. Obtain receipt prior to final payment.
1. Submittal and acceptance of spare parts and maintenance materials is required for final

completion.

- B. Miscellaneous Keys, Switches and Wrenches: At completion of project, account for all loose keys for hose bibs, adjustment keys and wrenches for door closers and panic hardware, keys for electric switches, electrical panels, etc. and turn over to Contractor for transmittal to Owner.

3.10 EQUIPMENT SERVICE AND MAINTENANCE

- A. General: Include complete service and maintenance calls spaced at maximum of three month intervals plus emergency calls throughout one year correction period. During each service and maintenance call as minimum check:
 - 1. Safety devices on each piece of equipment.
 - 2. Lubrication of all moving parts; lubricate where required.
- B. Service and Maintenance as specified in individual Sections of these Specifications.

3.11 END OF WARRANTY REVIEW

- A. The Contractor shall arrange to meet with the Engineer and Owner within 30 calendar days prior to the specified end of the guarantee period for the purpose of assimilating a list of items which require correction under specific guarantees.
- B. Should the Contractor be unable or fail to schedule such a meeting, all guarantees shall be automatically extended until such time as the meeting takes place and the Contractor shall be fully responsible for correcting such deficiencies as if they occurred under the original guarantee period.

CATEGORY 100 – PRELIMINARY (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

SECTION 104 – MAINTENANCE OF TRAFFIC

DESCRIPTION:

Maintain traffic safely and efficiently through and around the area affected by the work.

MATERIALS:

Traffic Materials MSHA Section 950

CONSTRUCTION:

- A. **Maintenance of Existing Driveway:** Maintain the existing driveway surface and shoulders, including crossroads, ramps, approaches, crossovers, medians, detour roads, entrances, and pavement markings within the project's limits throughout the duration of the Contract. Repair potholes, shoulder defects, and hazardous conditions that exist or develop throughout the Contract period.
- B. **Existing Regulatory Signs, Warning Signs, Guide Signs, and Pavement Markings.** Relocate, turn, completely cover with opaque material, or remove with the approval of the Engineer, signs that are not applicable due to temporary traffic conditions. Properly redisplay signs to traffic as soon as conditions warrant. Replace any signs misplaced or damaged by the Contractor's operations. Before construction and in the company of the Engineer, inventory and note the location, type, size, and color of all existing pavement markings, legends, and symbols. Submit the results on a marked-up set of the Contract Plans or on Contractor prepared sketches or drawings.
- C. **Storage and Movement of Equipment, Material, and Vehicles.** All equipment, material, storage, and parking areas shall have advance written approval from the Engineer. Employee vehicles shall not be parked within the public right-of-way, without a written exception. Equipment and material shall not be stored or permitted to stand in unprotected areas or open areas within 30 ft of traffic except as follows:
 - 1. An approved traffic barrier is in place prior to the storage of equipment and materials.
 - 2. Equipment and material are at least 4 ft behind the traffic barrier as measured from the bottom, nontraffic side of the barrier.
 - 3. Equipment or material is stored in conformance with the AASHTO Roadside Design Guide. Restore areas used for storage of equipment and material to original condition immediately upon completion of use, at no additional cost to the Owner. Vehicles and equipment shall enter and leave the work area in the direction of traffic flow. Work on or

adjacent to the traveled way shall be performed in the direction of traffic flow unless written approval is obtained prior to beginning the work. The Contractor's vehicles and equipment shall enter on and exit from the roadway at interchanges or legally allowed public use crossovers. Do not make U-turns across medians and crossovers signed FOR USE OF AUTHORIZED AND EMERGENCY VEHICLES ONLY, without written approval.

- D. **Warning Lights and Devices.** Use warning lights and flags on warning signs as specified in the TCP, the Contract Documents, or as directed. During hours of darkness, attach one Type-A low-intensity flashing warning light to the traffic side of channelizing devices used to warn of a spot hazard. Attach two Type-A low-intensity flashing warning lights to the top of each Type III barricade.
- E. **General Requirements for Temporary Pavement Markings (TPMs).** For pavement marking dimensions refer to Pavement Marking Dimension Table following (f.3) below.
1. Temporary pavement markings are those markings placed upon the roadway to serve an area of work activity or a work phase for a period of time after which they are to be removed. When approved, a less than full complement of pavement markings and reduced dimension markings for dashed center lines and lane lines may be used, but for a period of not more than two weeks.
 2. TPMs may be either full dimension or reduced dimension as specified in the Contract Documents or as directed.
 3. Full dimension TPMs shall be in accordance with the MdMUTCD and the Pavement Marking Dimension Table following (f.3).
 4. Reduced dimension TPMs shall be in accordance with the MdMUTCD and the Pavement Marking Dimension Table following (f.3), except that the dashed center lines and lane lines may consist of 4 ft segments and 36 ft gaps
- F. **Specific Requirements for TPMs**
1. As a minimum, place parking space lines prior to reopening for use.
 2. Contact the Office of Materials Technology (OMT) for the latest approved TPM materials.
 3. For pavement marking dimensions, refer to Contract Documents for Pavement Marking Plan.
- G. **Channelizing Devices.** Install traffic channelizing per the MdMUTCD, the Contract Documents, and the following:
1. Shall conform to MSHA Sections 104.12.01, 104.12.02, 104.12.03
 2. Spacing in feet for channelizing devices in a taper shall be no more than the posted speed limit in mph.
 3. Spacing in feet for channelizing devices in a tangent shall be no more than twice the posted speed limit in mph.
 4. To define interchange gore areas or other unusual alignments, space channelizing devices at 25 ft intervals, unless the Engineer directs a closer spacing.
 5. Space channelizing devices at approximately 6 ft intervals at driveways and intersections so that sight distance at these locations is not restricted.
 6. The Contractor's name or identification mark may be placed in an inconspicuous location on the channelizing device, facing away from traffic. No advertising is permitted.

H. Flaggers.

1. Refer to MSHA section 104.15.

1. Accessible Pedestrian Maintenance of Traffic
 1. Refer to MSHA section 104.31

MEASUREMENT AND PAYMENT:

Maintenance of Traffic will not be measured but will be paid for at the Contract lump sum price. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work.

SECTION 107 – CONSTRUCTION STAKEOUT

DESCRIPTION:

This work consists of providing a construction layout (stakeout) performed by a licensed surveyor currently registered in the State of Maryland. Also see Article 5.6.2, Construction Stakeout, in the General Conditions of Construction Contract. Furnish, place, and maintain construction layout stakes. Demarcate (flag) the Limit of Disturbance (LOD) and protected resources, including tree preservation areas. The LOD is defined as the maximum allowable limit of the construction work area. No clearing or earth disturbance activity may begin until the LOD, and all protected resources are demarcated as specified.

Note: In addition to the items listed below to be provided by a licensed surveyor, the Contractor must provide construction stakeout as incidental to all related construction work. The Contractor must use competent personnel and appropriate equipment for all work required to set and maintain the elevations and dimensions as specified in the Contract Documents. This stakeout must be installed to the satisfaction of all appropriate permit inspectors before any operation commences. If any discrepancies between plan and field conditions are found, the Contractor must resolve any needed field adjustments with the Owner before starting construction.

MATERIALS:

The surveyor must use marker materials that can be maintained by the Contractor during the course of construction.

When directed, reflag areas where flagging has been destroyed. If the destroyed flagging is not replaced within 48 hours, the Engineer may proceed to reflag the area. The Engineer's reflagging cost will be deducted from any monies due under the Contract. Remove all flagging at the completion of construction. Refer Subsection 107.02 of MSHA unless noted otherwise on Contract Documents.

CONSTRUCTION:

Comply with Subsection 107.03 of MSHA unless noted otherwise on Contract Documents.

The Contractor must have the licensed surveyor provide the following:

1. Project Layout: The Contractor's surveyor shall accurately locate the Work horizontally and vertically – to ensure that the Work is performed in accordance with the Contract and Task Order Documents.
2. Baseline Stakeout
 - a. A licensed surveyor must stakeout all construction baselines with the maximum spacing of stations (stakes, nails, crosses, etc.) of 100 feet unless closer stakeouts are specified in the Task Order Documents.
3. Site Stakeout

- a. Right-of-Way and Easement Lines: Where required by the Contract Documents, the Contractor must have a surveyor define right-of-way and easement lines of the project for adjacent property owners.
 - b. The Contractor must perform a surveyed stake out of any alignment centerlines (e.g., embankments or stream) and structure locations.
4. As-built survey
- a. An as-built survey of the completed Work shall be performed and shall include but not limited to: horizontal dimensions, grading limits, elevations, slopes, types/length/height of restoration features, and any new pipes, structures, profiles or typical details. The as-built survey shall include a final as-built topographic survey for all grading and stream measures; a final as-built survey of all storm drain and sewer structures must also be performed for inverts and distances.
 - b. See Section 121 for submission of as-built survey information with red-lined drawings.
5. Equipment and Personnel: Where a licensed surveyor is required, the surveyor must be currently registered in the State of Maryland.
6. Control Markers: The Contractor must preserve the center line and bench marks set by the surveyor. When the center line and bench marks are disturbed or destroyed, they must be replaced by the Contractor at no additional cost to the Owner.
7. Control Stakes: For construction baselines, the surveyor must furnish and set stakes at each station as shown on the Contract Documents or offset along one side of the project as site conditions require and per the Owner's approval. As applicable, each of these stakes must be marked with its offset distance from the center line along with key reference elevation(s) needed for proper construction. Maintenance of surveyor stakes and additional stakes needed for the horizontal and vertical controls necessary for the correct layout of the work must be provided by the Contractor at no additional cost to the Owner.
8. Utilities: When applicable, the Contractor must furnish to the utility companies or agencies working within the limits of the project, reference information related to control points, alignment and grade data. These must be furnished promptly upon request, so that the utility companies may properly locate and coordinate their work related to the project.

MEASUREMENT AND PAYMENT:

Construction Stakeout will not be measured but will be paid for at the Contract lump sum price. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. Payment of the Contract lump sum price will be prorated and paid in equal amounts on each monthly estimate. The number of months used for prorating will be the number estimated to complete the work.

SECTION 108 – MOBILIZATION AND DEMOBILIZATION

DESCRIPTION:

Construction preparatory and closing (clean-up) operations that include the movement of personnel, supplies, materials, tools, equipment, and incidentals to, within, and away from the project site collectively for the project and individual work operations; and the establishment and removal/decommissioning of the Contractor's offices, buildings, and other facilities necessary to commence, continue, and conclude the work. Perform final clean-up as specified in the contract documents.

MATERIALS:

Not applicable.

CONSTRUCTION:

Not applicable.

MEASUREMENT AND PAYMENT:

Mobilization and Demobilization will not be measured but will be paid for at the Contract lump sum price for Mobilization. The cost of all required insurance and bonds will be incidental to this item. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. Payment of the Mobilization and Demobilization item will not be made more than once, regardless of the fact that the Contractor may have, for any reason, shut the work down on the project or moved their equipment away from the project and then back again.

SECTION 109 –PROJECT SCHEDULE

DESCRIPTION:

Schedule techniques used in the Project Schedule to monitor the work specified in the Contract documents will use retained logic. The Owner will use the Project Schedule to monitor progress and evaluate any schedule impact from change orders during the project duration. Comply with the General Conditions of Construction Contract. In case of conflict, the General Conditions' requirements shall control.

MATERIALS:

Not applicable.

CONSTRUCTION:

Prepare an Initial Schedule using acceptable scheduling software that is capable of export to a compatible version of software used by the owner's reviewer.

Schedule techniques used in the Project Schedule to monitor the work specified in the Contract documents will comply with the precedence diagramming method using retained logic.

The Schedule shall indicate work activities and major material submittals required to complete the Project as shown in the Contract Plans. The Schedule shall include all activities of subcontractors, utilities, railroads, the Administration, and all other parties associated with the construction of the Project.

All work including, but not limited to, submittals, major procurement, delivery, and construction activities shall be included. All activities reasonably necessary to plan the scope of work shown in the Contract plans shall be included. Concurrent work by others, including any indicated in the Contract Utilities Statement, shall also be included. The Schedule shall be based upon the entirety of the Contract Documents.

The Schedule shall include the requirements provided below.

- i. **Milestones.**
The Schedule may include other milestones for planning work, including major interim Contract requirements, starting or ending of Phases of Construction, or other milestones necessary to monitor the work.
- ii. **Project Duration.**
- iii. **Activity Codes and Work Breakdown Structure.** Include activity codes for organizing activities in the Schedule.
- iv. **Activities.** Activities should include tasks necessary to perform the scope of project work and milestones defined in various specifications.

Prepare a complete written narrative with the Schedule. The narrative shall explain the Contractor's plan to construct the project according to Contract requirements, including Sequence of Work, Access Restrictions, Modification to Specification, Crew Composition, Unique Schedule Features. Submit the Schedule along with the written narrative to Procurement Officer in the NTP document, with a copy to the on-site Engineer. The submittal shall include an electronic schedule file in native format.

MEASUREMENT AND PAYMENT:

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

Cost is incidental to other cost line items.

SECTION 121 – MAINTENANCE OF REDLINED CONSTRUCTION DRAWINGS

DESCRIPTION:

This work consists of the Contractor’s maintenance and submission of a set of a full-size, redlined Construction Drawings to record any changes to the Work that have occurred during construction. The redlined drawings must be kept on-site and must be available to the Engineer and Owner throughout Project implementation. The drawings must be updated, at a minimum, for each monthly construction progress meeting.

MATERIALS:

At minimum, a full-size set of Construction Drawings with legible redlined edits indicating any modifications or in-field adjustments made to the Project by the Contractor during construction. Redlined drawings must be provided to the Engineer at the time of Project Substantial Completion.

METHODS:

The Contractor shall provide redlined edits to Construction Drawings to reflect any modifications to the plans. Any proposed plan modifications must receive prior approval by the Owner before construction and subsequent redline edits. One set of redlined Construction Drawings must be maintained and kept on-site at all times. Any deviations from approved plans must be marked, in red, on the redlined Construction Drawings.

Redlined information for the project shall consist of any deviation to the approved plan including but not limited to: grading limits, elevations, slopes, types/length/height of restoration features, and any modifications to pipes, structures, profiles or typical details. Redlined Construction Drawings require a final as-built topographic survey for all grading and stream measures; a final as-built survey of all storm drain and sewer structures must also be performed for inverts and distances.

The Contractor is required to maintain current “as-built” (red-lined) Record Drawings throughout the life of the Task Order. At each dimension on each Record Drawing, the Contractor shall either check (√) the design dimension as an actual dimension, or cross out the design dimension and provide the actual dimension. Marks shall be made using red pencil or pen.

Redlined drawings also include as-built planting plans required by Category 700.

At Substantial Completion of the Work, the Contractor must submit legible redlined Construction Drawings, including results of the final as-built survey, to the Engineer for approval. Any missing, erroneous, or incomplete information shall be re-surveyed within 72 hours of Engineer’s request at no additional cost. Retainage shall not be released until redlined Construction Drawings, including the final survey, are approved. The costs for stakeout, survey and maintenance of redlined information shall be considered incidental to the work and no specific payments will be made.

MEASUREMENT AND PAYMENT:

Cost is incidental to other cost line items and Sections.

CATEGORY 200 – GRADING (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

General Description: Work consists of all labor, materials, equipment, dewatering, sheeting and shoring, and services necessary for and incidental to the execution and completion of Grading (Earthwork), as indicated on the Contract Documents and specified herein. The extent of excavation, filling, and grading is shown in the Contract Documents. Preparation of subgrade for slabs and pavements is part of this Work. Backfilling required to establish proposed grade around facilities such as structures, curbs, pavements etc. is included as part of this Work.

All borrow sites and off-site disposal sites utilized by the Contractor to perform work under this Contract must have all necessary State and City permits. The Contractor must identify these sites and provide a copy of appropriate permit(s) to the Owner prior to starting work.

Note: Excavation and backfilling of native material incidental to the installation of in-stream structures and concrete structures should be included as incidental to the Unit Costs for those items provided in these specifications.

Existing Utilities:

1. Notify “Miss Utility” a minimum of 48 hours prior to performing earthwork by calling 1-800-257-7777. Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protection during earthwork operations. The Contractor must repair any Contractor damage to utilities shown on the Drawings or identified in the field. All utility work must be done in accordance with specific utility requirements including the use of utility-approved contractors and/or inspectors as appropriate; all costs for utility requirements shall be borne by the Contractor.
2. Should piping or other utilities (not shown on the Drawings) be encountered during excavation, stop work in that area and consult the Owner immediately for direction. Cooperate with the City and utility companies in keeping respective services and facilities in operation. Repair any Contractor-damaged utilities to satisfaction of utility company.
3. Do not interrupt existing utilities serving occupied facilities, except when permitted in writing by the Owner, and only after acceptable temporary utility services have been provided.

General Execution Requirements:

1. Use of Explosives: The use of explosives is prohibited unless authorized in writing by the Owner.

2. Protection:

- a. Safety: Provide protective measures necessary for the safety of the workers, public, and adjacent property. Prevent cave-ins, collapse of walls, structures and slopes, both on and adjacent to the site.
- b. Standards: Comply with regulations of local authorities having jurisdiction, including all applicable OSHA and MOSH requirements.
- c. Repair: Remove damaged materials and replace with new materials (as required by the Contract Documents) where such materials are affected by settlement or other damage caused by improper earthwork.

SECTION 201 – EARTH EXCAVATION

DESCRIPTION:

This Section covers excavation and handling of any soil material not classified elsewhere (e.g., pond dredge material, stream excavation, or topsoil). Excavation will be measured as the difference between an existing and the final design grades (e.g., cut) as shown on the Contract Documents. Earth excavated for reuse as fill on site must be kept in separate stockpiles for top soil and general soil regrading as required by the Contract Documents, Owner, or Permit Inspectors. Refer to Subsection 201.01 of MSHA and Contract Documents for additional information.

MATERIALS:

Referenced Standards:

- American Association of State Highway and Transportation Officials (AASHTO)
- American Society for Testing and Materials (ASTM)
- Maryland Department of Transportation, State Highway Administration “Standard Specifications for Construction and Materials” (MSHA), July, 2019.
- American National Standard for Pruning, ANSI A300 (2017)
- Montgomery County Department of Transportation Standard specifications hereinafter referred to as MCDOT.

Material Storage:

1. Stockpile excavated material suitable for backfill or fill where permitted by the Contract Documents, until required. Place, grade and shape stockpiles for proper drainage.
2. Locate and retain soil materials away from edge of excavations.
3. Dispose of excess and/or unsatisfactory materials as specified herein.
4. Temporarily stabilize or cover the stockpile as required.

CONSTRUCTION:

1. Excavation consists of cutting, removing, stockpiling and grading of material encountered when establishing required grade elevations in accordance with the Contract Documents that are not classified rock excavation, pond dredging or unauthorized excavation. Salvaging, stockpiling and placing topsoil must be in accordance with Section 701, and will be measured and paid separately under that Line Item.
2. Unauthorized excavation consists of site grading that extends beyond the specified bottom elevations or horizontal limits without the direction of the Owner. All remedial work, to correct unauthorized excavation, including backfilling and compacting with earth or gravel, lean concrete fill or any other material to bring elevations to grade as specified and to the satisfaction of the Owner, must be performed at the Contractor's expense.
3. The Owner must be contacted, and work in that area must be stopped, if unsuitable bearing materials, as determined by a qualified Geotechnical Engineer, are encountered at required elevations. Any additional work must be authorized by the Owner **before work continues** including deeper excavation and placement of suitable replacement material. Excavating unsuitable material solely to facilitate performance of other work shall be considered Contractor "means and methods" and shall be done at the Contractor's sole expense.
4. All areas to be paved with conventional impervious pavement must be proof-rolled at sub-grade in the presence of the Owner. If deemed necessary, soils below sub-grade must be undercut and replaced as described below. At the end of each day undercutting is performed, the Contractor must certify in writing the quantity, in cubic yards, of undercutting performed in agreement with the Owner. Both parties must sign the certification which must be submitted to the Owner at the end of the month.
5. Stability of Excavations: Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace the excavation where sloping is not possible because of space restrictions or stability of materials excavated.
6. Site Information: Data on indicated subsurface conditions is not intended to be a representation or warrant of continuity of such conditions between soil borings. It is expressly understood that the County will not be responsible for interpretations or conclusions drawn there from by the Contractor. Data is made available for the convenience of the Contractor.
7. Excavation for Structures:
 - a. Excavation for structures must conform to elevations and dimensions shown on the Contract Documents within a tolerance of plus or minus 0.1 foot. Excavation should extend sufficient distance from footings and foundations to permit placing and removal of concrete formwork in addition to other utilities or adjacent structures. Excavation must not be backfilled without the Owner's approval.
 - b. In excavating for footings and foundations, do not disturb bottom of excavation. Excavate by hand to final grade just before concrete is placed. The horizontal limits of excavation must be within 18 inches of the surface of installed structures unless specified otherwise on the Contract Documents or covered separately for deep excavation.

- c. Abandoned structures, which may exist where footings, foundations, etc., are to be placed, are to be removed to one foot below the elevations of bottoms of such footings, foundations, etc., unless additional excavation is directed in writing by the Owner.

8. Excavation for Stone and Bituminous Pavements:

- a. Cut surface under pavements to comply with cross-section, elevations and grades as shown. All excavated areas which are to be paved must be compacted to 95% of maximum density as determined by AASHTO T-99.
- b. Where rock is encountered, carry excavation 1'-0" below subgrade and backfill with suitable material approved by the Certified Geotechnical Engineer.
- c. All topsoil from under areas to be paved with stone, asphalt or concrete, must be removed, until suitable soil is encountered. At that point, the Contractor must not proceed until the Owner has inspected the soil to determine if the excavated area is deeper than the required elevation for sub-base, sub-grade, etc. The Owner may then determine and/or direct that any replacement material be provided to bring grades up to required specifications for compaction until required density is achieved before proceeding with the next step.

9. Fine Grading

- a. General: Uniformly grade areas within limits of grading under this section, including adjacent transition areas. Smooth finish surface within specified tolerances, with uniform levels or slopes between points where elevations are shown, or between such points and existing grades.
- b. Ditches: Finish ditches to ensure proper flow and drainage. Manage excavation equipment and travel paths as to minimize soil compaction. Stabilize the soil surface with temporary or final stabilization in accordance with sediment control guidelines.
- c. Grass Areas: Finish areas to receive topsoil must conform to within a tolerance of 0.1 foot above or below the required sub-grade elevations.
- d. Walks: Shape surface or areas under walks to line, grade and cross-section, with finish surface not more than ½ inch above or below the required sub-grade elevation, duly compacted.
- e. Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 1 inch above or below the required subgrade elevation, duly compacted.

10. Maintenance

- a. Protection of Graded Areas: Protect newly graded areas from traffic and erosion in accordance with County and State Sediment Control Standards and keep free of trash and debris. Repair and reestablish grades in settled, eroded, and rutted areas to specified tolerances.
- b. Reconditioning Compacted Areas: Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.
- c. Disposal of excess and waste materials: Remove waste materials, including unacceptable excavated material, trash, and debris from the construction site. All excess and waste materials must be disposed of in accordance with local requirements.

11. Rock Excavation

- a. Refer to MSHA 201.03.04.

- b. Rock excavation consists of removal and disposal of materials encountered that cannot be excavated without the use of explosives or pneumatic equipment. Typical materials classified as rock are, solid rock, rock in ledges, and rock hard aggregate deposits. Intermittent drilling performed to increase production and not necessary to permit excavation of material encountered will be classified as earth excavation.
- c. The determination of rock excavation will be determined and measured in the field by the Owner. Rock is defined as that material which cannot be removed by use of a bulldozer blade with a single-tooth ripper and will require blasting or use of pneumatic equipment for breaking. The removal of disintegrated rock is classified as Earth Excavation. The rock excavation as measured in the field must be deducted from the volume of Earth Excavation item provided it is within the grading limits of the area. Rock Excavation outside of these limits must be carried out only at the discretion and direction of the Owner.
- d. Minimum Effort: If rock is not removed during the process of normal digging and ripping, contact the Owner for prior approval, then extend the excavation to expose the rock surface within the limit of original excavation. The Contractor must perform any and all rock excavation required to complete the Work.

In addition to above referenced guidelines, comply with Subsection 201.03 of MSHA unless noted otherwise on Contract Documents.

MEASUREMENT AND PAYMENT:

Excavation will not be measured but will be paid at the Contract lump sum price for each referenced line item. Monthly payments will be prorated based on estimated duration of the excavation work. The payment will be full compensation for all excavation and hauling, temporary stockpiles, formation and compaction of embankments and backfills, disposing of excess and unsuitable materials, preparation and completion of subgrade, preparation of final grade for stabilization, sheeting/shoring, all excavation-related safety measures, and for all material, labor, equipment, tools, and incidentals necessary to complete the Work. Payment will not be made for excavation of any material used for purposes other than those specified.

SECTION 205 – TEST PIT EXCAVATION

DESCRIPTION:

This work consists of hand excavation of test pits to determine the location and elevation of utilities and other underground facilities as specified in the Contract Documents. The Contractor must determine the location of underground structures, pipes and utilities by use of test pit excavation prior to equipment excavation. Hand excavation is required; if appropriate, the Owner may approve the use of pot-holing equipment to dig the test pits.

MATERIALS:

Not applicable.

CONSTRUCTION:

Test Pits must not exceed one square yard in surface area without the permission of the Engineer's Technical Representative. All test pits must be backfilled with compacted soil and restored to the original site elevation and grades unless otherwise specified. Also, comply with Subsection 205.03 of MSHA unless noted otherwise on Contract Documents.

MEASUREMENT AND PAYMENT:

Test Pit Excavation will be measured and paid for at the Contract unit price per cubic yard for the material removed from within the specified limits. The payment will be full compensation for all excavation, tamped backfill, and all material, labor, equipment, tools, and incidentals necessary to complete the work. Unit cost includes all costs of restoring the site to original conditions except any paving, which would be paid under a separate line item.

SECTION 206 — REMOVAL OF EXISTING PAVEMENT, SIDEWALK, PAVED DITCHES, CURB, OR COMBINATION CURB AND GUTTER

Section IV. H. Technical Specifications Category 200 – Grading (MSHA-Based)

DESCRIPTION:

Remove to full depth and dispose of existing pavement, sidewalk, paved ditches, curb, or combination curb and gutter. Materials must be removed down to subgrade or bedding. Material and debris collected as a result of the removal and disposal operation become the property of the Contractor and must be disposed of in accordance with local and state regulations. In addition, comply with Subsection 206 of MSHA unless noted otherwise on Contract Documents.

MATERIALS:

Any saws shall be specifically designed to perform this type of work.

CONSTRUCTION:

Saw cut to full depth the existing pavement, sidewalk, paved ditches, curb, or combination curb and gutter along the lines specified or as directed. When approved, removed materials may be broken and used in the work. Protect all sections designated to remain from being damaged. Repair or replace damaged areas.

The Contractor must submit a report to the Owner any time waste materials resulting from repair or maintenance of a storm water facility have been disposed of off-site. The report must be submitted within 24 hours after disposing the materials, and include the following information along with a copy of the receipt from the disposal facility where the materials are deposited:

1. Date the material was removed;
2. Name, address, and phone number of the person transporting the materials;
3. Types of structures and location from which the materials were removed;
4. Amount and types of waste materials removed;
5. Location of the facility to which the materials were delivered for disposal.

MEASUREMENT AND PAYMENT:

The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work. The work will be measured and paid per linear foot as specified in the Contract Documents. Backfilling and landscaping as directed by the Engineer will not be included in the Contract Unit Price. Payment for this work will be made using the applicable items included in the Contract Documents.

SECTION 208 – SUBGRADE PREPARATION

DESCRIPTION:

Prepare, protect, and maintain the subgrade prior to the construction of succeeding courses.

MATERIALS:

If warranted, comply with Subsection 208.02 of MSHA unless noted otherwise on Contract Documents.

CONSTRUCTION:

Bring the subgrade surface to line and grade and shape it to the specified cross section. Set grade for subgrade control both longitudinally and transversely with fixed controls not exceeding 25 ft spacing. Limit the finish subgrade deviation to 1/2 in. from the established grade.

Subgrade for pervious pavement must be protected from over compaction. Geotechnical Engineer shall inspect and accept subgrade for pervious pavement prior to placement of stone subgrade and/or provide direction for corrections needed.

Prevent damage by heavy loads or equipment. Repair or replace any defects or damage. Do not place subsequent cover material upon a frozen subgrade or any subgrade until it has been checked and approved. Refer to Subsection 208.03 of MSHA unless noted otherwise on Contract Documents for additional clarification.

MEASUREMENT AND PAYMENT:

Cost is incidental to other cost line items.

CATEGORY 300 – DRAINAGE (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

SECTION 308 – EROSION AND SEDIMENT CONTROL

GENERAL DESCRIPTION:

This Work consists of the provision and installation of all Sediment Control Devices as indicated in the Contract Documents. Control Devices must comply with the latest version of the Maryland Department of the Environment (MDE) “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control” and “Maryland’s Guidelines to Waterway Construction”.

Work includes measures to prevent erosion and run-off of earth and silt, methods to prevent the transport of sediment off-site by construction vehicles, dust control, and contact and coordination with Sediment Control Inspection staff and any other involved regulatory agencies throughout the project.

The Contractor shall assume all Erosion and Sediment Control obligations and responsibilities placed on the Owner. The Contractor shall perform all layout, construction, scheduling, bookkeeping, notification, review and maintenance.

DESCRIPTION:

Install and maintain erosion and sediment control (ESC) measures throughout the contract's life to control erosion and minimize the release of sediments into adjacent areas and nearby rivers, streams, lakes, reservoirs, bays, and coastal waters. Implement the approved ESC plan and approved modifications. Identify staging and stockpile areas and apply ESC measures as approved.

Erosion and Sediment Control Manager (ESCM). Designate an Erosion and Sediment Control Manager (ESCM) to implement the ESC plan and to oversee the installation, maintenance, and inspection of the ESC measures.

MATERIALS:

All materials must be in accordance to MDE specifications for Soil Erosion and Sediment Control and MDE Construction Guidelines unless otherwise specified in the Contract Documents.

Geotextile fabrics must conform to Section H of the MDE “2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control”.

Straw mats (bales) with any type of plastic netting will not be accepted. The Straw/Single Jute Mat must be East Coast Erosion Blanket ECS-1B, Straw Biodegradable Single Net Blanket or Owner-approved equal and must provide biodegradable ground cover for seeding purposes with an estimated field life of less than 12 months.

Any Soil Reinforcement Matting must be biodegradeable and must be installed per manufacturer’s specifications.

Sand Bags: Sand bags must be made of UV resistant material, resistant to tear and puncture and woven tightly to prevent leakage of the sand. The sand bag must be at least 14” x 26” in size and hold a minimum of 50 pounds of sand.

Temporary HDPE pipe shall be flexible corrugated pipe.

The dewatering bag must be made of non-woven geotextile with a minimum surface area of 225 square feet per side. All structural seams must be sewn with double stitch using a double needle machine with high strength thread. The seam strength must withstand 100 lb/in using ASTM D-4884 test method. The dewatering bag must have a nozzle large enough to accommodate a 4 inch discharge hose. The geotextile fabric must be a nonwoven fabric with the following properties:

Weight:	ASTM D-3776	12oz/yd
Grab Tensile	ASTM D-4632	300 lbs
Puncture	ASTM D-4833	180 lbs
Flow Rate	ASTM D-4491	75 gal/min/sq ft
Permittivity	ASTM D-4491	1/1 sec
UV Resistance	ASTM D-4355	70%
AOS	ASTM D-4751	100

In addition to above guidelines, refer to Subsection 308.02 of MSHA and Contract Documents for further information.

CONSTRUCTION:

Comply with Subsection 308.03 of MSHA unless noted otherwise on Contract Documents. Exclude sections 308.03.06, and 308.03.07.

1. The Contractor must employ, and identify to the Owner, a responsible person involved in the Project who has a Certificate of Attendance at a Maryland Department of the Environment approved training program for the control of sediment and erosion as the Superintendent/Supervisor. At any time, the Owner may request proof of this Certification.
2. Upon issuance of the Notice to Proceed, the Contractor shall layout the Limits of Disturbance and mark utilities via Miss Utility interaction. After these activities are completed, the Contractor shall schedule a pre-construction meeting with: Owner, the Owner’s Inspection staff and the Contractor. The Contractor must not access the Project Site for any reason other than visual observation and surveying prior to this meeting; no land disturbance activities are permitted prior to this pre-construction meeting.
3. Installation of sediment control devices must begin only after the Owner has granted approval. The Owner’s Inspector has the authority to make field modifications to the installed sediment controls.
4. All Sediment Control features must be constructed and installed in accordance with the Contract Documents or, if not indicated in the Contract Documents, then in accordance with the appropriate

detail as specified in the MDE Specifications for Soil Erosion and Sediment Control and MDE Construction Guidelines. All proprietary sediment control devices must be installed per manufacturer's instructions.

5. Grading must be accomplished such that existing surface drainage is not impaired, a potential hazard is not created, hazardous erosion will not occur, or sediment will not collect in existing drainage systems.
6. All sediment control devices must be maintained, inspected and repaired as necessary at the end of each working day and after each rain event. If sediment leaves the construction area, it must be removed immediately and the area must be cleaned to the satisfaction of the City. Temporary stabilization must be provided.
7. Removal of sediment control devices:

Once the Project has been completed, and all disturbed areas have been restored (seeded, sodded, paved, constructed, etc.) as called for in the Contract Documents and there is a good stand of grass in the seeded/sodded areas, the Contractor must contact the Owner for approval to remove the sediment control devices. The sediment control devices must be removed within 14 days from the date of the Owner's approval.

8. As permitted, after removal of all sediment control devices, the Contractor must re-grade affected areas to proposed designed grades and seed/or sod them as required for stabilization. **The Work is not considered complete until all temporary sediment control devices have been removed and all regrading and seeding/sodding is completed and the Owner has granted approval.**
9. Dust Control: The Contractor must provide water as necessary to reduce airborne dust when directed by the Owner, at no additional cost to the Owner.
10. Dewatering: Prevent surface water and subsurface or groundwater from flowing into excavations and from flooding Project Site and surrounding area. Do not allow water to accumulate in excavations or other areas of the Site. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of sub-grades and foundations. Provide and maintain pumps, sumps, suction and discharge lines, and other dewatering system components necessary to convey water from excavations. Convey water removed from excavations and rainwater to collecting or run-off structures. Provide and maintain temporary drainage ditches and other diversions outside excavations limits for each structure. Do not use trench excavations as temporary drainage ditches. Dewatering activities must be performed at no additional cost to the City unless a separate pay line item has been provided. Any repair to foundations which results from deficient dewatering is the sole responsibility and cost of the Contractor.

Dewatering (Filter) bags: Water encountered within the Site must be pumped through a dewatering (filter) bag before it is allowed to drain away from the Site. Dewatering setup must be made in accordance with the Contract Documents; if not shown; the filter bag must be placed so that the incoming water flowing into the bag will pass through the system and then off site without creating erosion. The neck of the system must be tied off tightly to stop water from flowing out of the system without passing through the walls of the bag. The filter bag must be placed over a

wood chip (mulch) bed to allow the water to flow in all directions. The filter bag must be placed on level or gently sloping grade and secured in place by wooden stakes spaced at 5 feet on center.

Contractor shall provide adequate pump(s) for all dewatering. All dewatering installations must be inspected by appropriate permit inspectors and the Owner prior to being placed into operation.

Install standard Stabilized Construction Entrances (SCEs) in accordance with Contract Documents and MSHA 308 and applicable State and City guidelines. The price must include off-site removal of all related materials upon project completion.

Temporary curb inlet protection must be installed around all storm drain curb inlets to control sedimentation into the storm drainage system.

MEASUREMENT AND PAYMENT:

The maintenance, repair, removal and resetting, and final removal of erosion and sediment control measures will not be measured, but the cost will be incidental to the Contract price to construct the device. Each sediment control will be paid for once. Any rework, repair or re-installation of sediment control devices shall be performed at the Contractor's expense.

Sand bags will be paid per each based as size as specified above. Smaller bags will be prorated by size or weight for payment.

Geotextile material will not be paid separately but shall be incidental to, and included in, other line item costs.

CATEGORY 500 – PAVING (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

Unless otherwise described in each Line Item, in general, work performed under this Division is subject to inspection and acceptance by the Owner prior to payment. Any work not accepted must be re-done at no additional cost to the City.

SECTION 501 – AGGREGATE BASE COURSES

DESCRIPTION:

Construct base course using Aggregate.

MATERIALS:

Comply with MSHA Subsection 901.01, Size No. 57

CONSTRUCTION:

At least 30 days prior to the start of constructing the base course, submit the proposed plants, equipment, and material sources for approval. Protect the subgrade and base against damage from all causes. Repair or replace damaged areas as per the instruction of the Engineer. Limit excavation for widening to an area that can be backfilled the same working day using aggregate base.

Provide a mixture containing 35 percent to 40 percent coarse material as measured by dry weight of the total mix. Transportation, handling, compaction, and associated tasks should be carried out as specified in Subsection 501.03 of MSHA unless noted otherwise on Contract Documents.

Stone subbase for pervious pavements shall not be overly compacted. Follow Geotechnical Engineer's direction.

MEASUREMENT AND PAYMENT:

Aggregate Base Course will not be paid separately but shall be incidental to, and included in, other line item costs.

SECTION 508 – MILLING AND OVERLAY OF EXISTING HOT MIX ASPHALT PAVEMENT

DESCRIPTION:

Mill and Overlay Asphalt Pavement. Comply with Subsections 504.01 & 508.01 of MSHA unless noted otherwise on Contract Documents.

MATERIALS:

Comply with Subsection 504.02 of MSHA unless noted otherwise on Contract Documents.

CONSTRUCTION:

Weather Restrictions: Place mixes used as the final surface when the ambient air and surface temperatures are at least 40 F. Ensure that surfaces to be paved are clean and dry before paving, as approved. a) Place mixes used as intermediate and base layers when the ambient air and surface temperatures are at least 32 F. b) Place polymer-modified surface mixes when the ambient air and surface temperatures are at least 50 F. Additionally, comply with Subsections 504.03 & 508.03 of MSHA unless noted otherwise on Contract Documents. The requirement for Quality Control Plan is not applicable.

MEASUREMENT AND PAYMENT:

Milling and Overlay Asphalt Pavement will be measured and paid for at the Contract unit price per square yard for the pertinent depth of milling asphalt pavement. The amount will be computed from the width and length measurements of the actual milled areas. The payment will be full compensation for milling, measurement, testing, milled material disposal, overlay, furnishing, hauling, placing all materials including anti-stripping additive, tack coat, control strip, pot hole and spall repairs, setting of lines and grades where specified, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

CATEGORY 600 – SHOULDERS (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

Unless otherwise described in each specification section, in general, work performed under this Division is subject to inspection and acceptance by the Owner prior to payment. Any defective work not accepted must be re-done at no additional cost to the Owner.

SECTION 602 – CURB, COMBINATION CURB AND GUTTER AND MONOLITHIC MEDIAN

DESCRIPTION:

Construct concrete curb, concrete combination curb and gutter, concrete curb openings, and concrete monolithic median

MATERIALS:

Crusher Run Aggregate CR-6 per MSHA 901.01
Aggregate per MSHA 901.01, Size No. 57
Curing Materials per MSHA 902.07
Form Release Compound per MSHA 902.08
Portland Cement Concrete per MSHA 902.10, Mix No. 3
Asphalt Mix per MSHA Section 904
Tack Coat per MSHA 904.03
Reinforcement Steel per MSHA 908.01
Joint Sealer per MSHA 911.01
Preformed Joint Filler per MSHA 911.02
Borrow Excavation per MSHA 916.01

Also, comply with Subsection 602.02 of MSHA unless noted otherwise on Contract documents

CONSTRUCTION:

In addition to meeting the requirements of MSHA Standard Specifications Section 602, concrete curb and gutters must meet the following requirements (unless noted otherwise):

1. Unless noted otherwise, replacement curb and gutter must match the configuration of the curb and gutter that was removed.
2. Curb and gutter must meet the latest Montgomery County Standard Type “A” (MC-100.01) or MSHA Standard Type “A” (620.02) unless noted otherwise in the Contract Documents.
3. All curb transitions, nose downs and depressed curb (gutter sections) through sidewalk ramps and driveways are included in the work.

4. In the course of work, the Contractor must take care to protect existing curb and gutter, driveway apron or other structures as required in the Contract Documents. Any Contractor-caused damage must be reported to the Owner and must be repaired to the satisfaction of the Owner at no additional cost to the Owner.
5. Slope requirements for sidewalk ramp curb openings must be in accordance with the American Disabilities Act (ADA).
6. Formwork for curb and gutter work within the public Right-of-Way shall be approved by the Right-of-Way Inspector prior to concrete placement.
7. All construction waste and debris must be swept and removed from the Site. **Construction waste and debris must not be swept or washed into the inlets or storm sewer system.**

MEASUREMENT AND PAYMENT:

The payment will be full compensation for all concrete, forms, excavation, backfill, disposal of excess material, drainage openings, joint sealer, tack coat, and for all material, labor, equipment, tools, and incidentals necessary to complete the work.

Curb, Combination Curb and Gutter, and Monolithic Median will be measured and paid for at the Contract unit price per linear foot. Asphalt Curbs, Concrete Curbs, and Concrete Combination Curb and Gutter will be measured along the front face of the curb. Monolithic Concrete Median will be measured along the centerline of the finished top of median.

Turfgrass Establishment and Turfgrass Sod Establishment will be measured and paid for separately and incidental to other line items.

CATEGORY 700 – LANDSCAPING (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Task Order Documents. In case of conflict between MSHA specifications and other Contract or Task Order Documents, the requirements of the other Contract or Task Order Documents shall apply.

Unless specifically specified otherwise in the individual Specification Sections below, the following minimum acceptance and maintenance requirements apply to all plant and seeding installations:

Initial Watering: The Contractor must provide at least one initial watering after planting, sodding or seeding. All watering must be accomplished using a hose with nozzle end breaker or a sprinkler. Water must be applied in sufficient quantities to maintain moist soil to a depth of at least 4 inches. Water must be applied at low water pressure directly to each plant, allowing water to be absorbed into the planting area until saturated, but without runoff. The Contractor must avoid the application of too much water.

The Contractor must water plantings as necessary until Initial Acceptance.

Contractor must be able to supply the required water from a water truck or from a nearby hydrant. When a hydrant is used, the Contractor is responsible for all regulations, permits or expenses necessary to use the public water supply.

Final Cleanup: Prior to Initial Acceptance, the Contractor must remove all trash and materials incidental to the project and dispose of it off-site. All rejected materials must be immediately removed from the site.

Inspection and Initial Acceptance: The Contractor must notify the Owner in writing that the Plantings, sod and/or seeds are installed in accordance with these specifications. The Contractor must request an inspection by the Owner. The inspection shall be performed by the Owner and Contractor within two weeks of written notification from the Contractor. If the installation and plantings are satisfactory, the Owner will provide a Certificate of Initial Acceptance to the Contractor. The Warranty period will begin from the date of the Certificate.

WARRANTY (ESTABLISHMENT AND MAINTENANCE) PERIOD WORK

After Initial Acceptance of any Planting work, and before receiving complete payment for any planting installations, the Contractor must provide a written Warranty to the Owner for the planting work. The Warranty must be provided using the Owner's form or other form acceptable to the Owner. The Warranty must acknowledge the Contractor's responsibility to: establish and maintain all plantings, sodding, and/or seeding, and to replace all deficient work at the Contractor's sole cost. The length of the warranty will vary depending on the nature of the work; see the individual Specification Sections for information on Warranty length. Work to be performed during the Warranty period shall include, but not be limited to:

Maintenance Watering: The Contractor must provide sufficient watering as necessary to maintain the plantings, sodding, and/or seeding in good health throughout the Permit Warranty period. This maintenance watering of planted trees, shrubs, herbaceous plants, sod, and/or seeded areas shall be as required for proper growth and health of the plantings. Water used on plants must be free of any substance harmful to the plants.

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During the Warranty period, the Contractor must monitor the water needs of all plant material at least once per month between March 31 and October 31. Additionally, the Contractor shall perform more frequently water monitoring visits in periods of low rain (defined as any two-week period with less than an inch of rain at the Site). When the Contractor identifies the need for watering, the Contractor must notify the Owner of the timing of the Contractor's planned watering. After Owner notification, the Contractor shall proceed with its planned watering – whether the Owner attends the watering or not.

While the Owner has no obligation to monitor watering, the Owner may notify the Contractor if the Owner feels that the Contractor has failed to properly water plantings. If so notified, the Contractor must start watering within 24 hours of that notification. The Contractor must provide watering until all plant material has been properly watered as approved by the Owner. All required watering must be completed within five calendar days of Owner notification.

Contractor must be able to supply the required water from a water truck or from a nearby hydrant. When a hydrant is used, the Contractor is responsible for all regulations, permits or expenses necessary to use the public water supply.

Maintenance: The Contractor shall be responsible for all maintenance during the Warranty period including but not limited to: watering, invasive plant control, fence maintenance, stake and guy maintenance, and mowing (as applicable). See individual Sections for additional requirements.

Final Inspection: The Contractor will conduct a Final Inspection with the Owner at the end of each Warranty period. It will be the Contractor's responsibility to notify the Owner at least two weeks before the anticipated meeting. Any planting installation that does not meet the Task Order Documents and/or the Warranty must be corrected or replaced by the Contractor at its own expense.

Replacements and Conditions: The Contractor must meet the required Warranties for replacement of deficient plantings. During the Warranty period, the Contractor will not be responsible for plant material that has been damaged due to vandalism, fire, relocation or other activities beyond the Contractor's control as determined by the Owner. The Contractor is responsible for maintaining adequate protection against deer (and other animal) damage, as specified in the specifications, during the Warranty period.

SECTION 705 – TURFGRASS ESTABLISHMENT (BY SEEDING)

DESCRIPTION:

This section specifies the establishment of turf by seeding as specified in the Task Order Documents. The work includes soil preparation, seeding, fertilizing, liming as required, mulching, overseeding and re-fertilizing of all areas designated for turf establishment.

MATERIALS:

Submittals:

1. At least one month prior to proposed seeding date, the Contractor must submit: proposed seeding schedule, manufacturer's certificates of seed purity and guarantees of germination in accordance with Maryland Seed Law, and soil test results to the Owner for review and approval. Proposed seed must be approved by the Owner prior to installation.
2. Before the seed is applied to the site, the Contractor must provide the Owner the seed tickets and manufacturer's invoice for the seed to be installed. The seed tickets and seed mixture being installed must match the mixture approved by the Owner.
3. Warranty: After the Contractor receives a Certificate of Initial Acceptance from the Owner, the Contractor must submit a written Warranty covering the establishment and maintenance of turfgrass installation. The Warranty period shall begin from the date of the Certificate of Initial Acceptance.

Seed and other Materials:

1. Seed must be fresh, clean, new seed crop composed of the following varieties mixed in the proportion shown and tested to the following minimum percentages of purity and germination.

Minimum standards for percent purity and percent germination of turfgrass:

Turfgrass species	% Purity	% Germination
Kentucky bluegrass	90	80
Perennial ryegrass	95	85
Tall fescue	95	80
Fine fescues	95	80

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APPROVED BLUEGRASS		APPROVED PERENNIAL RYE		APPROVED FESCUE	TALL
Merit	Limosine	Opni	Greenland	Amigo	Hounddog
Fairfax	Liberty	Bright Star	Prizm	Apache	Jaguar
Blacksburg	Julia	Cutter	Assure	Bonanza	Mesa
Preakness	Midnight	Repell II	Affinity	Chieftain	Mustang
Cynthia	Penn Pro	Prelude II	Seville	Finelawn I	I Olympic
Eclipse	Touchdown	APM	Rivera II	Finelawn 5GL	Rebel II
Georgetown	Dawn	Palmer II	Advent	Guardian	Shenandoah Tribute

2. Limestone applications must be determined by the soil test results and recommendations as approved by the Owner. Pulverized limestone must contain 50% calcium oxide equivalent (CaO or Ca Mg O) and ground to such fineness that at least 50% will pass through a 100 mesh sieve and 90% will pass through a 20 mesh sieve.
3. Fertilizer applications must be determined by soil test results and recommendations as approved by the Owner. Fertilizer must be 100 percent organic-based fertilizer and meet the following specifications:
 - a. Organic Fertilizer (5-3-4) – The organic fertilizer must be 100% organic based fertilizer (free of synthetic materials). The fertilizer may be derived of fish by-products, cottonseed meal, alfalfa meal, feather meal, rock phosphate, kelp meal, cocoa meal, blood meal, dried whey, natural nitrate of soda, natural sulfate of potash, and magnesium sulfate, and must meet the following chemical requirements:

Total Nitrogen (N)	5.00%
Water Soluble Nitrogen	1.50%
Water Insoluble Nitrogen	3.50%
Available Phosphate (P ₂ O ₅)	3.00%
Soluble Potash (K ₂ O)	4.00%

4. Mulch
 - a. Straw: Straw must meet the requirements of MSHA Section 920.04.01.
 - b. Wood Cellulose Fiber: Wood cellulose fiber must meet the requirements of MSHA Section 920.04.02.
5. Straw Mulch Binder must be bound with a suitable binder or straw must be rolled thoroughly with a crimping roller in several directions to prevent erosion of the soil and/or mulch.
6. Any erosion control blanket, installed to facilitate soil stabilization and grass growth, must be comprised of natural, biodegradable (in less than 9 months), material. Acceptable materials include: 1) straw matting with jute netting and 2) wood fiber matting with no netting (example: Curlex). The use of plastic, polypropylene or nylon netting is not acceptable.

CONSTRUCTION:

Comply with Subsection 705.03 of MSHA unless noted otherwise on Task Order Documents.

1. All areas disturbed by construction must be seeded unless noted otherwise in the Task Order Documents and as directed by the Owner. Areas that are not disturbed must NOT be seeded.
2. Soil must be tested by an accredited soil testing laboratory for acidity (pH), phosphorous (P_2O_5), potassium (K_2O), soluble salts concentrations and organic matter.
3. All areas to be seeded must conform to the finished grades as specified on the Task Order Documents and be free of all weeds, trash, debris, brush, clods, stones and other foreign materials larger than 3 inches in diameter or length that would interfere with seeding, or future grass maintenance. All gullies, washes or disturbed areas that develop subsequent to final dressing must be repaired prior to seeding.
4. Seeding must be performed from March 1 through May 15 or August 1 through October 20 unless otherwise approved by the Owner.
5. Seeding must not be performed on frozen ground or when the temperature is 32°F (0°C) or lower.
6. Before seeding, all soils must be loosened with rototillers, disk harrows, chisel plows, or other Owner-approved equipment, to a minimum depth of 4 inches. All stones over $\frac{3}{4}$ inch in any dimension must be removed from the top 4 inches of soil by use of a "Rock Hound" or other means. Fertilizer and limestone application may be accomplished at this time according to the results of the soil test. Fertilizer and limestone must be evenly distributed on the seed bed areas and worked into ground to a depth of 3 inches.
7. All seeding equipment must be calibrated before application to the satisfaction of the Owner so that the materials are applied accurately and evenly to avoid misses and overlaps. Seed installed by a broadcast spreader capable of placing seed at the specified rate. The minimum seed application rate is 250 pounds per acre.

Hydroseeding applications must meet MSHA Section 705.

8. Seed must be applied within the top $\frac{1}{4}$ inches of the soil in two different directions. The Contractor must maximize the seed/soil contact by firming soil around the seed with a cultipacker or other similar equipment.
9. Initial Watering must be provided as described in Category 700.
10. The Contractor must mulch and tack all seeded areas within 24 hours after seeding in accordance with MSHA Sections 705.03.09 and 705.03.10.

Initial Acceptance: After the Contractor has completed its initial seeding (including soil preparation, seeding, fertilizing, liming as required, mulching and initial watering), the Contractor shall submit a

request for Initial Acceptance. An Owner Inspection will be conducted to verify completion. If complete, an Initial Acceptance Certificate will be issued by the Owner at that time.

Warranty:

1. The Contractor must provide a written establishment, maintenance, and replacement Warranty on all permanent turf seeding. The length of the Warranty shall be the longer of: a) one year or b) until adequate grass coverage is obtained. The Warranty must guarantee a 95% survival rate per 1000 square foot area.
2. The Warranty period shall begin upon the date of the Initial Acceptance Certificate.
3. As necessary, the Contractor must reseed all areas experiencing a less than a ninety-five percent (95%) survival rate at its sole cost. As practicable, reseeding shall be performed prior to May 15 of the year following Initial Acceptance.
4. If Soil Stabilization matting is used (per Section 709), it shall be included as part of the turfgrass seeding Warranty. See Section 709 for further information.

Establishment and Maintenance of Newly Seeded Areas:

1. Establishment and Maintenance of grass areas requires fertilizing, watering, mowing, weeding, and re-seeding as necessary to obtain an Owner-approved stand of grass. It must continue until the end of the Warranty period. Until Final Acceptance, the Contractor shall refertilize all of the grassed areas during each seeding seasons. The actual timing and rate of application of the refertilization shall be decided by the Owner, consistent with MSHA 705.03.16. Proper maintenance of the turf will continue until the project is finally accepted.
2. Flooded, washed-out, rilled or otherwise damaged or defective areas of seeding, mulch, grade, swales, or berms must be reconstructed, and all grades re-established in accordance with the grade plans or other specifications.
3. The Contractor is responsible for all mowing until Final Acceptance. Mowing must not remove more than one-half of the grass blade length. Heavy mowing, resulting in grass piles, must be “double mowed” or piles must be removed by the Contractor. Height of the grass must be maintained at 3 inches, unless otherwise specified by the Owner.
4. The following are examples of deficiencies that will result in the Owner’s non-acceptance of the work:
 - a. Improper Grades:
 - Low or high spots on flat ball field-type areas.
 - Improper drainage such as swales, low areas, rip-rapped outlets, and paved areas.
 - Washed out or rilled areas.
 - Exposed rock and log debris
 - b. Turf Grass Conditions:

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

- Poor or thin stand; improper application of seed, dead grass; use of seed mixtures other than specified in the specifications.
- Improper fertilizer application – Uneven spreading, insufficient amounts, or failure to re-fertilize during extended acceptance.
- Persistent weeds established in turf areas.

Final Acceptance: When: 1) the Contractor has established adequate (at least 95%) turfgrass establishment, and 2) a minimum of 11 months has elapsed since the date of the Initial Acceptance Certificate, the Contractor shall submit a request for Final Acceptance. Owner and/or Regulatory Inspections will be conducted to verify completion. If complete, a Final Acceptance Certificate will be issued by the Owner at that time.

If Establishment is not complete at the time of the Inspection, the Contractor shall take immediate steps to establish adequate coverage during the next planting season. Re-inspections will occur until Final Acceptance.

MEASUREMENT AND PAYMENT:

Turfgrass establishment will not be paid separately but shall be incidental to, and included in, other line-item costs.

The cost of all Warranty work is incidental; the Contractor shall perform all Warranty work at no additional cost. **If the Contractor fails to perform any Warranty work, the Owner has the right to perform the work and back-charge the Contractor.**

CATEGORY 800 – TRAFFIC (MSHA-BASED)

GENERAL NOTE: The referenced MSHA Sections and Subsections apply unless noted otherwise elsewhere in the Contract Documents. In case of conflict between MSHA specifications and other Contract Documents, the requirements of the other Contract Documents shall apply.

SECTION 813 – SIGNS

DESCRIPTION:

Provide wooden or metal signs for Project identification and other information, including support post per contract documents.

MATERIALS:

Metal shall be sheet aluminum or extruded aluminum panels, all with reflective or non-reflective sheeting background and direct-applied or silk-screened copy with bolts and fittings to erect signs in conformance with the requirements of MSHA Section 813.

CONSTRUCTION:

Comply with Subsection 813.03 of MSHA unless noted otherwise on Contract Documents.

A Project sign must be installed at a prominent location at each Project Site and must be prepared in accordance with any standard details provided in the Contract Documents. The Contractor must protect and maintain the sign in good condition throughout the life of the Project.

Metal signs for information must follow MSHA and MCDOT for road signs and with any details in Contract Documents.

MEASUREMENT AND PAYMENT:

Signs will not be paid separately but shall be incidental to, and included in, other line-item costs.

CATEGORY 900 – MATERIALS (MSHA-BASED)

GENERAL NOTE: The material specifications of MSHA Category 900 shall apply as referenced in other Specification Sections. The material specifications of MSHA Category 900 are not repeated below. Following are only modifications to the referenced MSHA material specifications:

SECTION 901 – AGGREGATES

1. In addition to conformance with MSHA Section 901 (Tables 901 A and B), aggregate must conform to the following ASTM/AASHTO gradation table (M 43). Washed aggregate and river rock/gravel must also conform to ASTM C-33.

SIZES OF COARSE AGGREGATE, (AASHTO M 43) (inches)																
Size number	Nominal size square openings ⁽¹⁾	Amounts finer than each laboratory sieve (square openings), percentage by weight														
		4	3-½	3	2-½	2	1-½	1	¾	½	3/8	No. 4	No. 8	No. 18	No. 50	No. 100
1	3-½ to 1-½.	100	90 to 100		25 to 60		0 to 15		0 to 5							
2	2-½ to 1-½.			100	90 to 100	35 to 70	0 to 15		0 to 5							
24	3-½ to ¾.			100	90 to 100		25 to 60		0 to 10	0 to 5						
3	2 to 1.				100	90 to 100	35 to 70	0 to 15		0 to 5						
357	2 to No. 4.				100	95 to 100		35 to 70		10 to 30		0 to 5				
4	1-½ to ¾.					100	90 to 100	20 to 55	0 to 15		0 to 5					
467	1-½ to No. 4.					100	95 to 100		35 to 70		10 to 30	0 to 5				
5	1 to ½.						100	90 to 100	20 to 55	0 to 10	0 to 5					
56	1 to 3/8						100	90 to 100	40 to 75	15 to 35	0 to 15	0 to 5				
57	1 to No. 4.						100	95 to 100		25 to 60		0 to 10	0 to 5			
6	¾ to 3/8.							100	90 to 100	20 to 55	0 to 15	0 to 5				
67	¾ to No. 4.							100	90 to 100		20 to 55	0 to 10	0 to 5			
68	¾ to No. 8.							100	90 to 100		30 to 65	5 to 25	0 to 10	0 to 5		
7	½ to No. 4.								100	90 to 100	40 to 70	0 to 15	0 to 5			
78	½ to No. 8.								100	90 to 100	40 to 75	5 to 25	0 to 10	0 to 5		
8	3/8 to No. 8.									100	85 to 100	10 to 30	0 to 10	0 to 5		
89	3/8 to No. 16.									100	90 to 100	20 to 55	5 to 30	0 to 10	0 to 5	
9	No. 4 to No. 16.										100	85 to 100	10 to 40	0 to 10	0 to 5	
10	No. 4 to 0 ⁽²⁾ .										100	85 to 100				10 to 30

(1) In inches, except where otherwise indicated. Numbered sieves are those of the United States Standard Sieve Series.
(2) Screenings. Where standard sizes of coarse aggregate designated by two- or three-digit numbers are specified, the specified gradation may be obtained by combining the appropriate single digit standard size aggregates by a suitable proportioning device which has a separate compartment for each coarse aggregate combined. Blending must be done as directed by the Laboratory.

2. SUBMITTALS: The Contractor must submit, for Owner approval, sample aggregate material a minimum of thirty days prior to starting work.

3. Sand (Fine Aggregate): In addition to conformance with MSHA Section 901 (Tables 901 A and B), sand for bioretention facilities and other applicable infiltration facilities must be double-washed and otherwise conform to ASTM Standard C33 for fine aggregate.

CATEGORY 1000 – GENERAL (NON MSHA-BASED)

GENERAL NOTE: The specification sections in this Category are not based on the MSHA.

SECTION 1002 – TEMPORARY TREE PROTECTION FENCING

DESCRIPTION:

This section specifies the requirements for fencing needed to keep equipment away from tree root protection areas.

MATERIALS:

Fencing must be a 14 gauge, welded-wire mesh fence (woven, 2” x 4”). Fence must be 8 feet long metal “T” posts spaced at 10 feet (maximum) and embedded a minimum of 24” into the ground.

CONSTRUCTION:

Install wire mesh fencing for protection of trees. The fence must be removed from the site with all related materials upon project completion.

MEASUREMENT AND PAYMENT:

The Unit Price cost for fence on the Schedule of Unit Prices includes all labor, tools, equipment, materials including hardware, and incidentals necessary to construct the fence. The price must include off site removal of all related materials. Payment includes labor, equipment, and material required to meet requirements specified herein.

SECTION 1007 – CERTIFIED TESTING AND INSPECTION SERVICES

DESCRIPTION:

The Contractor must provide Certified Inspection and Testing services as required to determine all material compliance with Contract and Task Order Document requirements including testing and inspection services required by Task Order permits, WSSC Standard Requirements, and WSSC Permit Requirements. These services include and are limited to subgrade compaction tests, verification of adequacy of stone subbase material, hydrostatic testing, bacteriological testing, and concrete material testing as specified on the Contract and Task Order Documents and WSSC Standard Specifications.

MATERIALS: NA

CONSTRUCTION:

The provider(s) of all inspection and testing services, including geotechnical and/or structural inspection and testing services, must be approved by the Owner prior to commencement of the Work. All inspection and testing reports, including geotechnical and material reports must be clearly produced and submitted by the Contractor to the Owner and Engineering Consultant as part of the construction Record Documents.

The Contractor must provide compaction and geotechnical analysis of fill material placed under this Contract.

This Section requires the services of a Certified Engineer registered in the State of Maryland as well as the technical staff under the supervision of the Certified Engineer conducting soil tests in accordance with the requirements of the Contract Documents.

MEASUREMENT AND PAYMENT:

Certified testing and inspection services will not be measured but will be paid for at the Contract lump sum price. The payment will be full compensation for all material, labor, equipment, tools, and incidentals necessary to complete the work.

CATEGORY 2000 – ALLOWANCES

SECTION 2001 – GENERAL ALLOWANCE

DESCRIPTION: This Section provides administrative and procedural requirements for a General Allowance for additional work within the general scope of the Work.

An Allowance is a monetary contingency amount established in the Task Order Documents and included in the Task Order Sum to compensate the Contractor for its performance of additional Unit Price Work, if any, consistent with the Task Order Documents, upon written direction from the Contract Administrator.

An Allowance shall only be used for Work already defined by Unit Prices in the Task Order. Reference the Contract for other Change Work.

EXECUTION: Additional work, utilizing the General Allowance, must be approved in writing by the Contract Administrator prior to the performance of any additional work.

The General Allowance shall be adjusted (reduced) based on the increase of line-item quantities, above the Task Order quantity, multiplied by pre-determined Unit Prices in the Contract.

The Contractor, upon its discovery of an overrun in the quantities of any line item(s) in the Task Order Sum must notify the Contract Administrator of its discovery and must, upon request, provide all supporting documentation justifying the overrun. The work covered by an Allowance must be purchased on the basis of the Unit Price(s) specified in the Contract Documents. Upon the Owner's verification and approval of the overrun and overrun amount, the Owner will direct the Contractor, in writing, to reduce the Allowance by the amount of the overrun. **All invoices submitted after such written direction must indicate the reduction in the Allowance and the change (increase) in referenced line-item quantities.**

The Contractor must submit all invoices and/or delivery slips to justify actual quantities of line-item work.

All time required for the performance of work covered by the General Allowance is conclusively presumed to be included in the Contract (or Task Order) Time. For other Change Work, the Contractor must demonstrate a Delay and request an extension of time in writing in accordance with the Contract.

At the end of the Contract (or Task Order), the Contract (or Task Order) Sum must be reduced by an appropriate Contract (or Task Order) Modification to reflect the deletion of any remaining value in the Allowance.

Use any contingency allowance only as directed in writing by the Contract Administrator.

Section V: Special Provisions

NOTICE TO PROCEED AND COMPLETION SCHEDULE

The specified completion date and time shown herein below is to be strictly adhered to unless authorized or directed otherwise in writing by the City's Project Manager. The completion date, where specified, has an allowance for inclement weather and holidays. Time extensions for unusual conditions causing project delays not covered in these special provisions will be subject to the conditions covered under the GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS; however, no compensation above that indicated herein for specific items shall be paid to the Contractor for any delay, regardless of the source of delay.

The Contractor shall provide a bar-chart schedule at the Project Kick-Off Meeting or at such time as directed by the City Construction Manager, but not more than once per month or with any change order. In addition, the contractor shall verbally provide updates to the Project Inspector as requested.

CONSTRUCTION WORK HOURS

Work is permitted between 7:00 am to 5:00 pm, Monday through Friday except on adopted City Holidays. Working outside of these hours must first be approved in writing by the City. Work on any street, other than secondary residential (generally 26' in width) shall be limited to 9:00 am to 3:00 pm Monday through Friday. No work shall be permitted outside these hours unless written approval is obtained from the City Project Manager or his designee.

CONTRACT DOCUMENTS

In addition to the requirements of GENERAL CONDITIONS AND INSTRUCTIONS TO BIDDERS, Item No. 40, 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
- Drawings
- Special Provisions
- Technical Specifications
- General Conditions and Instructions to Bidders (City of Rockville)
- Standard Details by others
- City of Rockville Standard Details for Construction
- Applicable Standards listed below

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

APPLICABLE 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.

- City of Rockville Standards and Details for Construction, dated January 1988.
- Current Montgomery County Department of Public Works and Transportation Design Standards

- Maryland Department of Transportation, State Highway Administration's (MDSHA) "Standard Specifications for Construction and Materials" dated May 2017 including all errata and addenda thereto and additions included in these special provisions.
- MDE, WMA and SCS 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control
- American Society for Testing and Materials, "ASTM Standards", latest edition.
- American Water Works Association Standards (AWWA Standards), latest edition
- [American Association of State Highway and Transportation Officials](#), "AASHTO Standards", latest edition
- American Concrete Institute (ACI) Standards, latest edition.
- US Access Board Americans with Disabilities Act (ADA)
- Washington Suburban Sanitary Commission Standard Specifications and Details for Construction
- The Code of Maryland Regulations (COMAR)
- NSF/ANSI 61
- Safe Drinking Water Act

PROJECT KICK-OFF MEETING AND PRE-CONSTRUCTION MEETINGS

Upon issuance of the Notice to Proceed, the City may arrange a project kick-off meeting with all appropriate City staff and the Contractor. This will be an on-site meeting to review the project requirements. The City will decide which City staff will attend. The Contractor shall arrange any pre-construction meetings required by associated permits. These pre-construction meetings shall be held on the project site between the Contractor, the design engineer's representative, and appropriate City staff, including the Project Inspector, Sediment Control Inspector, and Engineering Project Manager. In addition, the contractor shall invite the following agency representatives to the pre-construction meeting and shall provide at least four (4) business days' notice.

All subsequent notifications for inspection and coordination with the City and all other agencies are the responsibility of the Contractor.

MOBILIZATION/DEMOBILIZATION

Mobilization shall include all activities and costs for transportation of personnel, equipment, and operating supplies to and from 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 any additional mobilization and demobilization activities, and costs as required during the performance of the contract. 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. 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 shall be always kept clean and neat. They shall be located on the project site as approved by the City.

The cost of mobilization shall be considered as incidental to the cost of the entire project. No separate bid item is provided.

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.

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 at least two representatives of the Contractor who can be reached in case of an emergency. The representatives must be fluent in English. The emergency information shall be in a central position, so it is visible and accessible 24 hours a day. The emergency information shall be posted for the entire length of the Contract.

PROJECT SIGNS

Prior to the start of construction, the contractor shall provide and erect a project sign at a prominent location at the construction site. The signs shall be prepared in accordance with the instructions below and as shown on the construction plans:

- Submit 8.5"x11" or greater size scaled shop drawings or sketch indicating dimensions, layout, content, and materials for each sign, for approval by the Chief of Construction Management.
- Locations to be flagged and approved or otherwise verified with DPW Project Inspector.
- The sign shall be 4' x 8' in size, constructed of 3/4" exterior density overlaid plywood or equal, and shall have a smooth white finish.
- Lettering shall be black latex or adhesive vinyl firmly affixed to the plywood surface, and each letter shall be a minimum of 3" in height. Letters shall be legible graphic type, as approved by the DPW Project Inspector.
- The sign shall be mounted on two 4" x 4" timber posts with adequate bolts and fittings to ensure proper stability. If unacceptable reflection or other viewing or safety issues are identified by the DPW Project Inspector, the sign's positioning shall be adjusted by the Contractor.
- The sign shall be posted at a proper location and erected at a height where the bottom of the sign is a minimum of 5' from the ground or as directed to permit public viewing.
- If applicable, the MDE decal shall be provided by the Maryland Department of the Environment.
- If peeling or damage occurs due to weather, construction activity or vandalism, it shall be the Contractor's responsibility to restore the sign to its original condition at no cost to the City.
- At the completion of the project, the Contractor shall remove the sign from the project site and restore the area to original condition.

Costs associated with project signs shall be incidental to the work and no specific payments will be made.

PUBLIC UTILITIES

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 extent possible 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 Engineering 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.

The Contractor shall notify the utility owner and City when previously unknown or different utilities are encountered. The Contractor shall support and protect existing utilities whether shown on the plans at no additional cost to the City. The Contractor shall not receive compensation for the temporary relocation of or temporary installation of utilities that are constructed for the convenience of the Contractor.

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 satisfactory to the utility company 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.

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.

- **WSSC**
Pipeline Construction Division Contract Manager
301-206-7363

- **City of Rockville**
Forestry Division
Mrs. Natasha Shangold
240-314-8205

- **City of Rockville**
Project Manager/Parks and Facilities Development Coordinator
Mr. Mauricio Daza
240-314-8608

- **City of Rockville**
Superintendent of Parks
Mr. Steve Mader
240 -314-8702

- **City of Rockville**
Project Inspector
Mr. Dan Stevens
240-314-8552
- **City of Rockville**
Sediment Control Inspector
Mr. Arthur Simpson
240-314-8700
- **City of Rockville**
Engineering Project Manager
Mr. Adeyemi Ojumu, P.E.
240-314-8525
- **City of Rockville**
Water and Sewer Utilities
240-314-8567
- **MISS UTILITY**
1-800-257-7777 or 811

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 shutdown, the Contractor must provide at least 21 calendar days' notice such that the City can provide proper notification.

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

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; 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.

WEATHER PROTECTION/LIMITATIONS

Weather Protection means the temporary protection of that Work adversely affected by moisture, wind, and cold by covering, enclosing, and/or heating. This protection shall provide adequate working areas during the months of November through March as determined by the City and consistent with the construction schedule to permit the continuous progress of all Work necessary to maintain an orderly and efficient sequence of construction operations. The Contractor shall furnish and install "Weather Protection" material and be responsible for all costs, including heating required to maintain

a minimum of 40 degrees F. at the working surface. This provision does not supersede any specific requirements for methods of construction, curing of materials, or the applicable conditions set forth in the Contract Documents with added regard to performance obligations of the Contractor. Weather protection costs associated with this work are incidental to the project and no specific payments will be made. The City reserves the right to stop work if the weather does not meet specifications, manufacturers recommendations and industry standards and specification to complete the work scheduled daily.

SITE ACCESS

Access to the site is by public streets and thoroughfares. After the completion of the project, all roads, driveways, 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 parks, easements across private property and other City-owned property in wooded areas must be coordinated with the City and the private property owners prior to the Contractor entering the property. Due to the proximity of public park property, private property and natural resources, the Contractor shall exercise extreme care in their construction operations. All work must be kept within these limits and within the "Limits of Disturbance" as shown on the Engineering Drawings.

It should be noted that the park will be open to the public during construction. The Contractor shall exercise prudence regarding site security, storage, staging, safety, worker identification/background and other matters that may impact the public. The Contractor must be sensitive to the community and adjacent property owners. The Contractor shall immediately advise the Engineer and/or the City Project Manager of any problems involving the community.

Due to project location, the potential for trespassers is high. The job site will need to be secured every day. The Contractor shall be held responsible for securing their own equipment.

ACCESS TO ADJACENT PROPERTIES

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

PRESERVATION AND RESTORATION OF PROPERTY, & MONUMENTS

The Contractor is to carefully examine the plans provided with the Engineering 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 the requirements outlined above shall be considered incidental to this contract and no special compensation shall be paid.

SITE CONDITIONS

The Contractor shall visit each work site prior to performing the work to verify the existing conditions.

The geotechnical data on the Engineering Drawings is provided for the Contractor's information only. The City does not warrant or guarantee the accuracy or completeness of the data. The Contractor should note the date and method(s) of data collection. The interpretation of the data and its applicability to the project is the responsibility of the Contractor and they are responsible for satisfying themselves as to the actual conditions and/or confirming the data provided prior to submitting their bid. There is no warranty or guarantee that geotechnical conditions other than those identified will not be encountered.

The topography shown on the Engineering Drawings represents the existing conditions at the time of the survey. However, the Contractor shall satisfy themselves as to all conditions at the time of bidding this project and include in their proposal any changes necessary to accomplish a complete and functional project. The Contractor will only be permitted to bring discrepancies in earthwork quantities to the attention of the City at the time of bidding. After award of Contract, payment for Earthwork pay items will be considered fixed.

Should there be any discrepancies between Engineering Drawings, specifications and/or field conditions after bidding and prior to the beginning of work, the Contractor shall bring such discrepancies to the attention of the City of Rockville at the pre-construction meeting.

The Contractor shall use the horizontal and vertical survey control points shown on the Engineering Drawings to layout the lines of work, stake out the location of all proposed structures, and test the levels of all construction. No other datum or control points will be accepted.

The Contractor shall create a video record of the project areas prior to beginning work. The City shall be notified 48 hours prior to the scheduled video recording of the site and will have a representative present to identify other areas that may be affected by the proposed construction. The Contractor shall be responsible for the repair, replacement and/or reconstruction of any property destroyed or damaged as a result of this Contract. This shall include all public and/or privately constructed driveways, fences, gates, buildings, landscaping, utility lines and other permanent items. All claims will be verified by the City through the video record of the area. The video record shall be submitted to the City prior to mobilization of any equipment for the Contract.

CONTRACTORS STAGING AND STORAGE

The Contractor will establish temporary staging areas as approved by the City. Cleanup of each staging area shall occur daily. 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 City's Project Manager 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. It shall be considered incidental to the contract.

TEMPORARY UTILITIES

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

CONSTRUCTION STAKEOUT AND AS-BUILTS

Construction Stakeout shall be in accordance with Section 107 of the MDSHA "Standard Specifications for Construction and Materials", dated July 2018, with the following exceptions:

The Contractor shall be responsible for all construction stakeout. The Contractor shall complete project as shown on approved plans. The City will not provide any construction stakeout for this project. Contractors are to use benchmark and layout information as shown on the plans.

The Contractor shall provide as-built information. One set of redline as-builts shall be always maintained and kept on-site. 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.

Upon completion of project, submit as-builts for approval. Retainage shall not be released until as-builts are approved.

A copy of the Department of Public Works As-built Plan Requirements is attached in Appendix K.

The City will provide an electronic CAD file of the layout information for the Contractor. The Contractor must complete an agreement for receipt of the electronic file.

AERIAL ELECTRIC LINES

The Contractor shall be aware that State law requires that a 10-foot radial clearance shall 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 shall be considered the minimal distance.

NOISE CONTROL MEASURES

All work must comply with the noise ordinance requirements for Montgomery County. A copy of the ordinance enforced by the Department of Environmental Protection (DEP) is attached to these contract documents in Appendix J for observation and compliance. With City approval, the Contractor may request a waiver through Montgomery County. The Contractor is fully responsible to submit the request and comply with any conditions of the waiver approval. The Contractor shall consider the processing time of this request, which includes a public notice element, when scheduling their work.

WATER POLLUTION CONTROL MEASURES

The Contractor shall not discharge or permit discharge into the waters, canals, ditches, or drainage system any fuels, oil, bitumen, 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.

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:

- Upon installation of all erosion and sediment control devices to schedule a “Notice to Proceed” inspection prior to commencing work.
- Prior to removing sediment control devices; and
- Upon completion of final grading, establishment of ground covers and approved land stabilization.
- During the progression of all work, the Contractor shall make periodic inspections and maintain sediment control devices, including cleaning and routine maintenance as directed or necessary, to ensure that the intended purpose is accomplished. Under no circumstances shall sediment be allowed to enter private properties, stormdrains, or City waterways.

When directed in the field by the Project 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, City Notes in Section VII, approved plans and details per latest City of Rockville Standards, Maryland Department of the Environment’s 2011 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 Project Inspector. Please refer to Maryland Department of Transportation, State Highway Administration’s Specifications entitled, “Standard Specifications for Construction and Material” dated May 2017, 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 is to 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 Project 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 always have an employee present on site who has met the requirements for certification of the Responsible Personnel training in erosion and sediment control according Maryland State Law. 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 and/or approved plans; 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, stockpiles, 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 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.

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 during development.
- Perform all site preparation, including removal of pavements, structures, and inclusion of soil amendments, PRIOR to installing plantings.
- Maintain and monitor all tree plantings in accordance with the contract documents, for a period of two years from the date the plantings are inspected and approved by the City Forester. Such maintenance shall include when appropriate, but not necessarily be limited to:
 - Watering, fertilizing and control of competing vegetation during the initial planting and through the two (2) year maintenance period as may be necessary or as dictated by the FTP Permit.
 - Pruning, mulching, tightening and removal of guys and stakes within six (6) months, resetting of plants to proper grades or upright position, and furnishing and applying such sprays or other items necessary to thwart damage from insects and disease.
 - Providing protection measures such as fencing and interpretive signs as necessary, to prevent destruction or degradation of the planting site.
 - Eradicate, suppress, and control non-native invasive plant species, as approved by the City Forester, to maintain the health of the trees planted.
 - Guarantee survival of 100% of landscape tree plantings and 85% of forest plantings under 2” caliper in good health and in flourishing condition of active growth for a minimum period of two years from the date that the plantings are inspected and approved by the City Forester.
 - Replace, as soon as weather permits, any dead plantings to ensure compliance with the above minimum survival requirements; provided, however, that dead trees and plantings shall be removed immediately.

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 by the City Forester's office.

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.

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 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 Project 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.

All pumps and generators utilized for bypass and dewatering operations shall be "quiet" rated with a full-load noise level of less than 63 dB at 23 feet or as approved by the Construction Manager. The City may require additional measures, such as the use of straw bale baffle walls, for work approved outside of normal working hours.

Care of water during construction shall be considered incidental to the appropriate pay item.

DAILY CLEAN-UP

The Contractor shall always 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 cleaned” at the end of each working shift. Open excavations may not be left unattended. Site must be secured each night.

The Contractor shall clean every street upon which any work has been performed under this contract daily. 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 Project Inspector. Under no circumstance shall the contractor use compressed air or jet water sprays for cleanup purposes.

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 the City Project Manager.

INSPECTION AND CERTIFICATION

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

INSPECTION AND REPAIRS

The City and WSSC reserves the right to inspect 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 City’s Recreation and Parks Project Manager will give written notification of the unsatisfactory work to the contractor. The Contractor shall have no more than 10 days to correct the condition.

CONTRACTOR’S EMPLOYEES

Contractor’s employees are to 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’s employees shall conduct themselves in a professional manner. They shall minimize their impacts to the surrounding properties, including when they arrive to the site, take breaks, eat lunch, and depart the site. Contractor’s employees shall be respectful and polite to inquiries from residents or individuals not associated with the project. Any inquiries beyond basic information should be referred to the City. The Contractor shall inform the City of any inquiries that occur that is beyond providing basic information.

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.

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 if they do not possess a WSSC installer license or certification.

Nothing contained in the contract documents shall create any contractual relationship between the owner and any subcontractor or sub-subcontractor. Vendors who will subcontract the delivery, installation, or any other portion of the work herein described will submit, prior to construction, the following information:

A description of the items to be subcontracted, and the 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. Subcontractors shall be considered an agent of the Contractor, who shall be held fully accountable for all 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.

All such changes, or additional work must be authorized in writing by the City Project Manager prior to starting such work.

INVOICES AND PAYMENT

The Contractor shall submit a detailed invoice to the City's Project Manager, for payment at the end of each month for all work completed and accepted by the City during that month. The Contractor shall attach to each monthly invoice, all required documentation of testing results. It is possible that the City may issue a Limited Notice to Proceed (LNTP) to allow for mobilization, coordination, field measuring, shop drawing review/approval, submission of work plan and ordering long lead time components, and possible work if mutually agreed upon between the City and the contractor.

CONDITIONS FOR APPROVAL FOR ACCESS TO CITY OF ROCKVILLE FACILITIES

All Contractor and subcontractor employees that will work on the job site or who have access to sensitive information are to have initial background checks performed by the City to assure the City information used and generated by this project will not end up in unauthorized hands. The initial background checks are valid for one year and subject to annual renewal for employees continuing to work on the project. The Contractor shall allow 4 weeks, from date of submission of personnel information or from the date of Notice to Proceed, whichever is later, for the City to perform background checks.

“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, or 200-foot sheets of the water distribution system or the wastewater collection system

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.

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

The contractor shall issue contractor's project participants photo identification cards. Identification cards must be always worn while on any City property. Contractor employees found on-site without proper identification will be immediately removed from City property. The design of identification cards shall be reviewed and approved by the City prior to issuance. Identification cards for employees who are no longer associated with the project, for any reason, will be immediately recovered by the Contractor. The Contractor is responsible to control and inventory all identification cards issued so those cards are not obtained or used by unauthorized individuals.

TECHNICAL CONTACT/PROJECT ENGINEER

Jordan Rang, P.E. – Senior Project Engineer

KCI Technologies, Inc.

936 Ridgebrook Road

Sparks, MD 21152

Telephone 410-316-7936

Email: jordan.rang@kci.com

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

COMPLETE AND RETURN WITH BID
INVITATION FOR BIDS #19-22
KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE AND
FIRE SUPPRESSION INSTALLATION PROJECT
SECTION V: BID PRICING FORM/BID PACKET

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 Item No.	Description	Unit	Quantity	Unit Bid Price	Total Bid Price
GENERAL CONSTRUCTION					
1.	Mobilization	LS	1		
2.	Maintenance of Traffic	LS	1		
3.	WSSC Coordination	LS	1		
4.	Root pruning	LS	1		
5.	Tree Removal	EA	9		
6.	Tree Replacement (including eleven Willow Oak, eight Floribonda Crabapple, one American Holly, and one Red Maple) with trunk protection	EA	21		
7.	Coordinate and abandon existing wells	EA	2		
8.	Construction Stakeout	LS	1		
9.	Certified Testing and Inspection Services	LS	1		
SEWER MAIN CONSTRUCTION					
10.	8" SDR-35 PVC Sewer Main	LF	600		
11.	4' Diameter Precast Manhole, up to 12 feet deep	VF	45		
12.	6" SDR-35 PVC Sewer Main	LF	120		
13.	4" SDR-35 PVC Sewer Main	LF	264		
14.	Standard 4" Cleanout	EA	7		
15.	Standard 6" Cleanout	EA	2		
16.	Connection to Existing Manhole	EA	1		
17.	Pavement Replacement for within ROW - Asphalt	Ton	120		
WATER MAIN CONSTRUCTION					
18.	8" DIP Water Main	LF	572		
19.	6" DIP Water Main, including fire hydrant lead pipe	LF	140		
20.	4" DIP Water Pipe	LF	290		
21.	8" FM Meter in Vault including piping and appurtenances	EA	1		
22.	Fire Hydrant	EA	1		
23.	Yard Hydrant and Associated 1" Copper Tyke K Water Pipe	EA	1		
24.	Provide curb and gutter/pavement replacement - Concrete	LF	20		
25.	Provide pavement replacement within ROW - Asphalt	Ton	100		
26.	Provide pavement replacement for non-state road - Asphalt	Ton	10		

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

Base Bid Subtotal (Bid items 1 through 26)							
CONTINGENT ITEMS							
27.	Test pit in paved areas (non-arterial and non-state roads)	CY	3				
28.	Test pit in arterial and state roads	CY	6				
29.	Test pit in non-paved areas	CY	3				
30.	Gravel backfill below subgrade	CY	700				
31.	Silt fence	LF	600				
32.	Tree protection fence	LF	710				
33.	Straw bale dike	LF	25				
34.	Crusher run CR-6	CY	70				
35.	Borrow trench backfill	CY	60				
36.	Temporary chain link fence	LF	132				
37.	Stabilized Construction Entrance	EA	1				
Contingent Subtotal (Bid items 27 through 37)							
Base Bid Grand Total (Bid items 1 through 37)							

GRAND TOTAL IN WORDS _____

_____ (\$ _____)

EXCEPTIONS

All exceptions taken to the specifications contained in this document must be clearly indicated in the space provided below. Unless noted as an exception, the bidder will be held responsible for providing each component or standard called for.

The City Manager for the City of Rockville, Maryland retains the exclusive right to approve or reject any exception taken to the specifications contained in this bid. It is hereby agreed that if this bid is rejected due to an exception taken to a specification by the bidder, the rejection taken will be final and no further action may be taken.

Do you claim an exception to any specification to this bid? If yes, please explain.

COMPLETE AND RETURN WITH BID

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

Add / Alternates

Bid Item No.	Description	Unit	Quantity	Unit Bid Price	Total Bid Price
Add/Alternate Item 1: Design and Installation of Fire Sprinkler System (for both dairy barns and the "Manse" house)					
A-1	Design, furnish and install two dry pipe sprinkler systems in the dairy barns and one wet pipe sprinkler system in the "Manse" house.	LS	1		
A-2	Connect and bring water service into the associated buildings	LS	1		
	Total Add/Alternate 1				

ADDENDUM In the event that any addenda to this solicitation are issued, all solicitation terms and conditions will remain 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:

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

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.

Acknowledgment is hereby made of the following Addenda (identified by number) received since the issuance of this bid:

Addendum # _____ Date _____ Addendum # _____ Date _____
 Addendum # _____ Date _____ Addendum # _____ Date _____

THE BIDDER IS HEREBY NOTIFIED THAT THIS DOCUMENT SHALL BE SIGNED IN INK IN ORDER FOR THE BID TO BE ACCEPTED. BY SIGNING, THE BIDDER CERTIFIES THAT HE/SHE WILL COMPLY IN EVERY ASPECT WITH THESE SPECIFICATIONS.

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:

NAME: _____

_____ Street and/or P.O. Box

_____ City State Zip Code Fed ID or SSN

_____ (SEAL) _____
Signature Date

_____ Print Signature

WITNESS: _____

_____ Signature

_____ Print Signature

IF A PARTNERSHIP:

NAME OF PARTNERSHIP: _____

_____ Street and/or P.O. Box

_____ City State Zip Code Fed ID or SSN

BY: _____ (SEAL) _____
Member Signature Date

_____ Print Signature

TITLE: _____ WITNESS: _____

_____ Signature

_____ Print Signature

IF A CORPORATION:

NAME OF CORPORATION: _____

Street and/or P.O. Box

City State Zip Code Fed ID or SSN

STATE OF INCORPORATION: _____

BY: _____ (SEAL) _____

Signature

Date

Print Signature

TITLE: _____ WITNESS: _____

Secretary's Signature

Print Signature

CONTACT FOR ADMINISTRATION

NAME: _____

PHONE: _____ FAX: _____

E-MAIL ADDRESS: _____

EMERGENCY SERVICE (24hr.) PHONE: _____

REMITTANCE ADDRESS (if different than above)

Street and/or P.O. Box

City State Zip Code

RESPONDENT'S QUESTIONNAIRE

In order to be considered for award the bidder must complete in its entirety and submit with the bid. 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 Respondent's Questionnaire in its entirety. If additional sheets are necessary, please attach to this form and reference the applicable number.

Submitted by _____
Signature of Authorized Representative: _____
Name of Firm: _____
Address _____
Organized under the laws of State of: _____
DUNS #: _____

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

2.2 WSSC Certification/License # _____

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, please provide details on a separate sheet.

3.3 a) Are there any judgment, claims, arbitration, proceedings, or suits pending or outstanding against your organization or its officers? b) Has a surety bond or similar instrument ever been called on your company? (i.e., has the obligee ever called a surety bond issued on behalf of your company)?

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, please provide details.

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.

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.

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.

3.8 State the total worth of work in progress and 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 company's audited financial statements for the past two (2) years, if requested, by the City of Rockville.

4.2 Is your company 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.

4.3 Is your company 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.

CERTIFICATION

The above statements are certified to be true and accurate.

BY: _____
Signature

Date

Print Signature/Title

ATTACHMENT A
AFFIDAVIT

I hereby affirm that: I am the _____ and the duly authorized representative of the firm of _____ 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 further affirm:

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

1. Except as described in Paragraph 2 below, neither I nor the above firm no, 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 is to 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.

NON—COLLUSION AFFIDAVIT

1. 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 and

Title _____

Date _____

**ATTACHMENT B
INVITATION FOR BID #19-22**

CITY OF ROCKVILLE BIDDER REFERENCE FORM

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 performing the type of work required for this contract. The bidder shall have performed similar work for **a minimum period of five (5) years**. Indicate below a listing of three recent projects completed by your firm that can substantiate past work performance and experience in the type of work required for this contract. 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.

1. Company Name _____
Address: _____
Contact Person: _____ Current phone #: _____
Email Address: _____
Contract Amount: _____ Name of your project supervisor: _____
Description of Work Performed: _____

2. Company Name _____
Address: _____
Contact Person: _____ Current phone #: _____
Email Address: _____
Contract Amount: _____ Name of your project supervisor: _____
Description of Work Performed: _____

3. Company Name _____
Address: _____
Contact Person: _____ Current phone #: _____
Email Address: _____
Contract Amount: _____ Name of your project supervisor: _____
Description of Work Performed: _____

IFB #19-22 KING FARM FARMSTEAD WATER/SEWER INFRASTRUCTURE
AND FIRE SUPPRESSION INSTALLATION PROJECT

4. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Percent of work by own forces: _____ Actual completion date: _____

Description of Work Performed _____

5. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Percent of work by own forces: _____ Actual completion date: _____

Description of Work Performed _____

CITY OF ROCKVILLE SUB-CONTRACTOR REFERENCE FORM
(submit reference sheet for each subcontractor)

The City of Rockville reserves the right to reject bids from any company not meeting the minimum qualifications. If any proposed sub-Contractor's experience is not deemed acceptable to the City, the City shall inform the Contractor and the Contractor must identify an acceptable substitute prior to award or during construction without effecting the prices bid. Sub-Contractor shall be a competent and experienced firm with an established reputation within the community. Each Sub-Contractor shall have performed similar work for a minimum period of **five (5)** years. Furnish a representative list of three (3) projects.

SUBCONTRACTOR'S NAME: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT NAME: _____

WSSC CERTIFICATION/LICENSE #: _____

DESCRIPTION OF ITEM(S) TO BE SUBCONTRACTED: _____

1. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Description: _____

2. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount: _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Description: _____

3. Company Name _____

Address: _____

Contact Person: _____ Current phone #: _____

Email Address: _____

Contract Amount _____ Name of your project supervisor: _____

Scheduled completion date: _____ Percent complete: _____

Description: _____



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*) _____
Dollars (\$ _____) 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: _____

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.

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:

Corporate Secretary or Asst. Secretary

(Print or Type Name and Title)

Principal
By _____ (Seal)
President or Vice President

(Print or Type Name and Title)

(Address)

ATTEST:

Witness as to Surety

(Print or Type Name and Title)

Surety
By _____ (Seal)
Attorney-in-Fact

(Print or Type Name)

(Address)

(Address)

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

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



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)* _____
_____ Dollars (\$ _____
_____)

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: _____

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

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:

Corporate Secretary or Asst. Secretary

(Print or Type Name and Title)

Principal
By _____ (Seal)

President or Vice President

(Print or Type Name and Title)

(Address)

ATTEST:

Witness as to Surety

(Print or Type Name and Title)

Surety
By _____ (Seal)

Attorney-in-Fact

(Print or Type Name)

(Address)

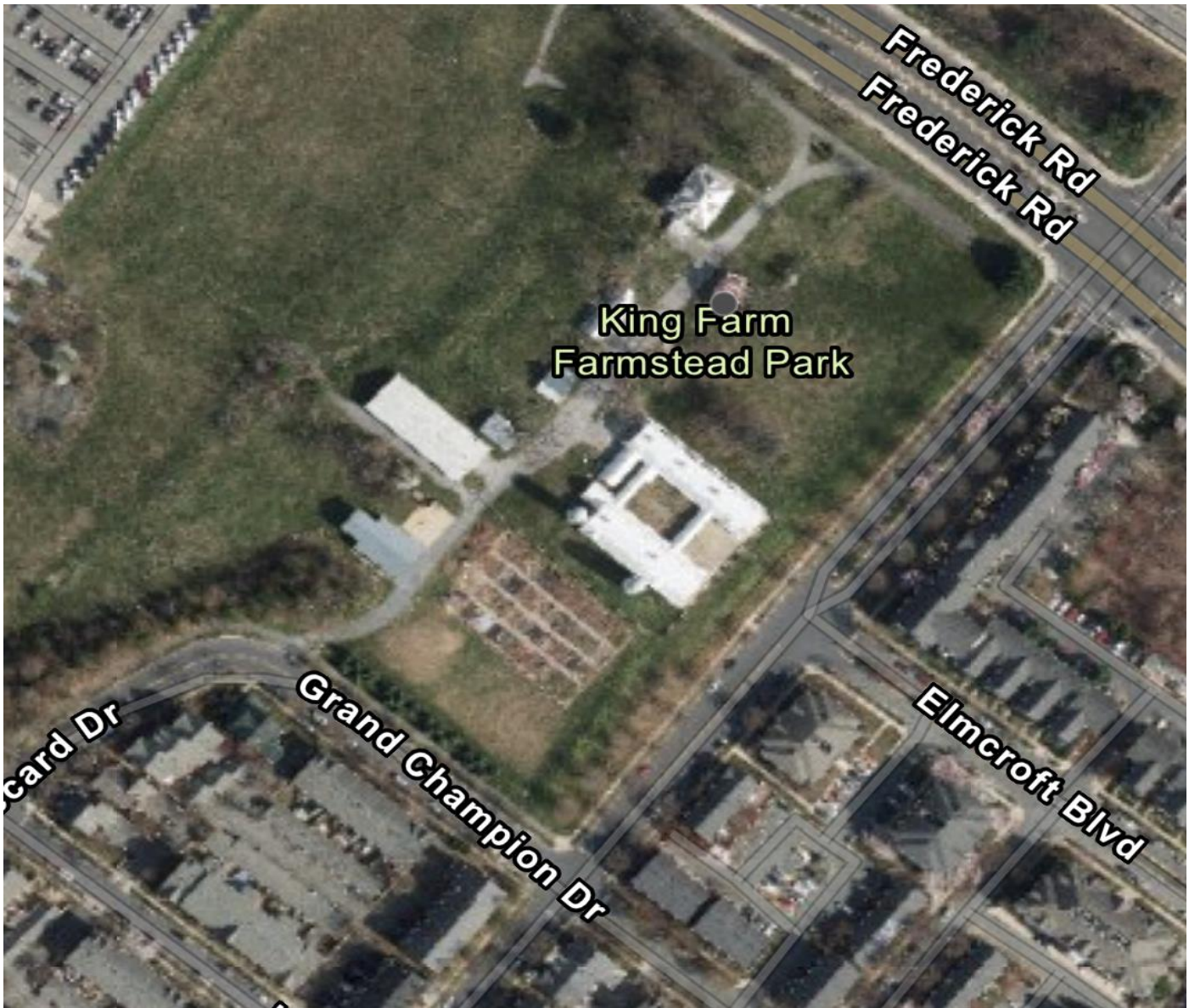
(Address)

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

APPENDIX A
SITE PLAN AERIAL

A. Project Limits



APPENDIX B

WSSC STANDARD SPECIFICATIONS

Note: Unless otherwise noted, all work under this Contract shall follow WSSC Standard Specifications and Details. The compiled set of standard specifications found herein are not complete and are for informational purposes only. A full set of the latest standard specifications and details can be found on WSSC's website (<https://www.wsscwater.com/work-with-us/codes-standards-policies-and-procedures>).

APPENDIX C WSSC STANDARD DETAILS

Note: Unless otherwise noted, all work under this Contract shall follow WSSC Standard Specifications and Details. The compiled set found herein are not complete and are for informational purposes only. A full set of the latest standard specifications and details can be found on WSSC's website (<https://www.wsscwater.com/work-with-us/codes-standards-policies-and-procedures>).

APPENDIX D

WSSC SU PERMIT TEMPLATE (FOR INFORMATION ONLY)

SITE UTILITY PERMIT

Approval on this day given to City of Rockville, for the installation of a site utility water and/or

sewer system to serve improvements on property described as King Farm Farmstead in Montgomery County, Maryland, as shown on drawings approved under SU-3319-2021.

CONDITIONS:

1. All construction pursuant to this permit shall be in conformance with provisions of the Washington Suburban Sanitary Commission *General Conditions and Standard Specifications, Standard Details for Construction, Development Services Code, Plumbing and Fuel Gas Code, and the approved site utility plans.*
2. No facilities constructed pursuant to this permit shall be placed in service, nor shall the physical connection of the plumbing system to the site utility system be accomplished prior to acceptance of the site utility system by the Washington Suburban Sanitary Commission Development Services Division.
3. Subsequent to the issuance of this permit, and prior to the anticipated start of construction, the site utility contractor shall notify the WSSC Pipeline Construction Division Contract Manager at 301-206-7363 a minimum of 72 hours in advance, to coordinate a pre-construction meeting prior to commencement of work.
4. Applicant will provide all materials and material certifications for this site utility system in accordance with the approved drawings and specifications.
5. Upon completion of the site utility installation, two (2) sets of as-built drawings shall be submitted to the WSSC Pipeline Construction Division. The as-built submittal shall be signed and sealed by a State of Maryland Registered Professional Engineer.
6. The permit holder shall defend, indemnify, and hold harmless the Commission, its agents, and employees from and against any and all claims, suits in law or equity, actions, damages, losses and expenses of every name and description, including attorneys' fees to which the Commission, its agents, and employees may be subject or put by reason of injury to persons (including bodily injury, death or any other form of personal injury) or property damage arising out of or resulting from the site utility water and/or sewer system installation that is the subject of this permit and/or the performance or omission of any inspection by the Commission, its agent or employees connected with this permit, whether caused or alleged to be caused in whole or in part by any negligent act or omission of the permit holder, any contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not the injury is caused or alleged to be caused in part or in whole by acts or omissions of the Commission, its agent or employees, or other cause.
 Note for Government Agencies only: Liability under paragraph 6 of this Site Utility Permit is subject to the statutory limit and pre-lawsuit notice requirements set forth in the Local Government Tort Claims Act, § 5-301, et seq, of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time.
7. This Permit expires with the expiration of the plan as defined in the Development Services Code.

SPECIAL CONDITIONS:

THIS PERMIT DOES NOT RELIEVE THE APPLICANT FROM OBTAINING PERMISSION FROM ANY FEDERAL, STATE, AND/OR LOCAL PERMIT AUTHORITY HAVING JURISDICTION OVER ANY CONSTRUCTION ACCOMPLISHED PURSUANT TO ISSUANCE OF THIS PERMIT.

I understand and agree to the terms and conditions of this site utility permit as shown above.

Site Utility As-Builts will be provided by:

Mauricio Dora 1/11/23
Applicant Signature Date

Name of Registered Professional Engineer

WSSC Approval:

Street Address

Development Services Division, Section Manager Date

City, State, Zip Code

Phone No.

APPENDIX E

WSSC ABANDONMENT PERMIT

WSSC Water Long-Form Permit for Abandonment, Service Connection, and Meter Vault Only (External)



Permit Number: **AB-1374162-2022** **(Non-Res) Abandonment**

Active Holds on the Permit:

Permit Details:

Permit Type: Abandonment (Non-Res)	Project Record: SU-3319-2021 - King Farm Farmstead	Application Date: 01/22/2022
Work Class: Abandonment	DSG Reviewer ID: 4283	Issue Date: 02/17/2022
Permit Status: Issued	RSG Reviewer ID: WSSC	Expiration Date:
Description:	Licensee Name:	Last Inspection Date:
	Licensee ID:	Final Date:
County Building Permit #:		
Building Certification Release Date:		
Building Certification Release Expiration Date:		

Property Info:

Service Address (Number & Street Name): 16100 FREDERICK RD			
Property Type: 81 - Mixed-Use Commercial	EGIS Property Info:		
Subdivision: KING FARM	Subdivision: 0503		
Parcel: A	Parcel:		
Lot:	Lot:		
Block:	Block: A		
ADC Map Page: 5164	GIS X Coordinate: 1263182.358289540		
ADC Map Grid: C02	GIS Y Coordinate: 528934.621406083		
200' Sheet #: 221NW08	200' Sheet #: 221NW08		
County: M			
Election District: 4	Election District: 04		
Current Property Tax Account #: 03189995	Current Property Tax Account #: 03189995		
Tax Account # (Other):			
Is Parent Tax Account #?: No	AIS Property Info:		
City: GAITHERSBURG	County:		
Zip Code: 208780000	Election District:		
Building #:	Current Property Tax Account #:		
Building Name:			
Unit or Suite #:			
Parcel Record Info: M0403189995			

Owner Info:

Name: Mayor & Council of Rockville	Street Address: 111 Maryland Avenue	City: Rockville
State: MD-Maryland	Zip: 20850	Telephone: 2403148608

WSSC Water Long-Form Permit for Abandonment, Service Connection, and Meter Vault Only (External)



Permit Number: **AB-1374162-2022** **(Non-Res) Abandonment**

Proposed Work:

Job/Tenant Name: City of Rockville	Permit Job Detail:
	Structure Condition (New/Exist): Existing
Water Supply System:	Sewer Disposal System:
Current Water Supply Type: Private Well	Current Sewage Disposal Type: WSSC Sewer
Proposed Water Service Connection Size:	Proposed Sewer Serv Conn. Size:
Water Service Category:	Sewer Service Category:
Water Main Location: N/A	Sewer Main Location: In the Public Way
Water: Job Contract #:	Sewer: Job Contract #:
Existing Water Service Connection Size to be Abandoned: N/A	Existing Sewer Service Connection Size to be Abandoned: 4" Gravity
Proposed Meter for Outside Meter Vault/Setting:	
Meter Requested from Applicant:	Sewage Pump Info:
WSSC Water Meter Location Reque	Please indicate whether any of these apply.
Meter Size Requested:	Grinder Pump Make:
	Grinder Pump Model:
	Grinder Pump Approval Date:
	Grinder Pump Approved By:
Residential:	Non-Residential:
Who will build/abandon the service connection or outside meter vault?	Does proposed Service Connection serve MORE THAN ONE building?
ONLY property owned in subdivision or development?	Total Residential Units in Building:
Existing Property Details (Health Hazard)	Water Service Connection serves Fire Suppression System:
Length (in feet) of water service to be installed by plumber on property:	Water Service Connection for irrigation purposes only:
Existing service connection(s) to be abandoned in County/State Road:	SU or MSU #: SU-3319-2021
	SU or MSU Project Name: King Farm Farmstead Water and Sewer Improvements
ALL structure(s) to be served by the requested service connection(s)/outside meter vault/setting OR were served by service connection(s)/outside meter vault/setting to be abandoned:	
<input type="checkbox"/> Main House (May include attached garage):	0
<input type="checkbox"/> Garage:	0
<input type="checkbox"/> Pool House:	0
<input type="checkbox"/> Guest House:	0
<input type="checkbox"/> Studio:	0
<input type="checkbox"/> Barn:	0
<input type="checkbox"/> Other:	

**WSSC Water Long-Form Permit
for Abandonment, Service Connection, and Meter Vault Only (External)**



Permit Number: **AB-1374162-2022** **(Non-Res) Abandonment**

Deferred Payment Plan Option:

Water Service Connection:
Sewer Service Connection:

SEP Mainline Extension Work Class:

New Connection or Abandonment for property not owned by the SEP applicant:
Payment Method Indicated:

Previously generated 'Permit Range' SC or AB permit #:

'Permit Range' permit # (SC or AB type) already exists on approved Job/Contract plans
Previously generated 'Permit Range' permit #:
Overwrite existing permit # with the 'Permit Range' permit #?

WSSC Water Long-Form Permit for Abandonment, Service Connection, and Meter Vault Only (External)



Permit Number: **AB-1374162-2022** **(Non-Res) Abandonment**

WSSC Water Meter/Billing Account Information

Water Meter Info:	
Water: Proposed Meter Size:	Water: Existing Meter Size:
Water: Proposed Meter Type:	Water: Existing Meter Type:
Water: Proposed Meter Location:	Water: Existing Meter Location:
WSSC Water Billing Account Info	
WSSC Water Billing Account #:	2205458
WSSC Water Meter ID #:	N/A
Manufacturer:	

Base Permit Information:

(PPIS) Base Permit #:	0335237	(XREF) SC Base Permit #:	0335237
Meter Base Permit #:		AB Base Permit #:	
Water SC Permit # Serving Property:		Sewer SC Permit # Serving Property:	0335237
Existing Water Service Connection Size:	N/A	Existing Sewer Service Connection Size:	12" and larger Gravity
Water: Job/Report #:	PRIVATE	Sewer: Job/Report #:	NO FLO
Availability of Water Main:	N/A	Availability of Sewer Main:	Existing
Water: Main Master Meter Permit #:			
Alternate Billing Account/Meter Service Address:			

Additional Service Connection, Abandonment, and Meter Vault Information:

Water:	Sewer:
Water Service Connection Contract #:	Sewer Service Connection Contract #:
Water Service Abandonment Contract #:	Sewer Service Abandonment Contract #: Pending
Water Outside Meter Vault/Setting Contract #:	
Water Meter Abandonment Contract #:	
Water: Date Permit Assigned to Contract:	Sewer: Date Permit Assigned to Contract:
Water: Release for Service Date:	Sewer: Release for Service Date:
Water: Substantial Completion Date:	Sewer: Substantial Completion Date:
Water Abandonment Permit #	Sewer Abandonment Permit #
Water: AIS Contract # Built From:	Sewer: AIS Contract # Built From: 815041A
Water: Built with Mainline Extension?	Sewer: Built with Mainline Extension? Improved
Water: Shared Connection?	Sewer: Shared Connection?
Private System Takeover?	Dry Sewer?
Water: Ahead of Payment:	Sewer: Ahead of Payment:

**WSSC Water Long-Form Permit
for Abandonment, Service Connection, and Meter Vault Only (External)**



Permit Number: [AB-1374162-2022](#) (Non-Res) Abandonment

Current Permit Cost Information:

Fee Description	Current Actual Cost	Current Fees Due	Invoice #	Status
Appl-Built AB	\$2,434.00	\$0.00	00254152	Paid In Full
Total Permit Fees	\$2,434.00	\$0.00		

Payment Information:

Payment Transaction #	Invoice #	Payment Amount	Payment Method	Date Paid	Transaction Status
TRC-236438-17-02-2022	00254152	\$2,434.00	Check	02/17/2022	Complete
Total Payments		\$2,434.00			

Required Physical Documents:

Document Name	Required	Received Date

Contacts Associated to this Permit:

NAME	TYPE	PHONE	EMAIL	BILLING CONTACT?
Rang, Jordan	Applicant		jordan.rang@kci.com	<input checked="" type="checkbox"/>
Rang, Jordan	Engineer		jordan.rang@kci.com	<input checked="" type="checkbox"/>

APPENDIX F

WSSC SERVICE CONNECTION PERMIT

WSSC Water Long-Form Permit for Abandonment, Service Connection, and Meter Vault Only (External)



Permit Number: **SC-1374210-2022** **(Non-Res) New/Upgrade**

Active Holds on the Permit:

Permit Details:

Permit Type: Service Connection (Non-Res)	Project Record: SU-3319-2021 - King Farm Farmstead	Application Date: 01/24/2022
Work Class: New/Upgrade	DSG Reviewer ID: 4283	Issue Date: 02/17/2022
Permit Status: Issued	RSG Reviewer ID: WSSC	Expiration Date:
Description:	Licensee Name:	Last Inspection Date:
	Licensee ID:	Final Date:
County Building Permit #:		
Building Certification Release Date:		
Building Certification Release Expiration Date:		

Property Info:

Service Address (Number & Street Name): 1101 GRAND CHAMPION DR			
Property Type:	81 - Mixed-Use Commercial	EGIS Property Info:	
Subdivision:	KING FARM	Subdivision:	0283
Parcel:	A	Parcel:	
Lot:		Lot:	
Block:	A	Block:	A
ADC Map Page:	5164	GIS X Coordinate:	1262779.081128330
ADC Map Grid:	C01	GIS Y Coordinate:	528584.848378175
200' Sheet #:	221NW08	200' Sheet #:	221NW08
County:	M		
Election District:	4	Election District:	04
Current Property Tax Account #:	03396371	Current Property Tax Account #:	03396371
Tax Account # (Other):			
Is Parent Tax Account #?:	No	AIS Property Info:	
City:	ROCKVILLE	County:	
Zip Code:	20850-0000	Election District:	
Building #:		Current Property Tax Account #:	
Building Name:			
Unit or Suite #:			
Parcel Record Info: M0403189995			

Owner Info:

Name: Mayor and Council of Rockville	Street Address: 111 Maryland Ave	City: Rockville
State: MD-Maryland	Zip: 20850	Telephone: 2403148608

WSSC Water Long-Form Permit for Abandonment, Service Connection, and Meter Vault Only (External)



Permit Number: **SC-1374210-2022** **(Non-Res) New/Upgrade**

Proposed Work:

Job/Tenant Name: City of Rockville	Permit Job Detail:
	Structure Condition (New/Exist): New
Water Supply System:	Sewer Disposal System:
Current Water Supply Type:	Current Sewage Disposal Type:
Proposed Water Service Connection Size: 8"	Proposed Sewer Serv Conn. Size: 8" Gravity
Water Service Category: W-1	Sewer Service Category: S-1
Water Main Location: In the Public Way	Sewer Main Location: In the Public Way
Water: Job Contract #:	Sewer: Job Contract #:
Existing Water Service Connection Size to be Abandoned:	Existing Sewer Service Connection Size to be Abandoned:
Proposed Meter for Outside Meter Vault/Setting:	
Meter Requested from Applicant:	Sewage Pump Info:
WSSC Water Meter Location Requested: Outside	Please indicate whether any of these apply. N/A
Meter Size Requested: 8"	Grinder Pump Make:
	Grinder Pump Model:
	Grinder Pump Approval Date:
	Grinder Pump Approved By:
Residential:	Non-Residential:
Who will build/abandon the service connection or outside meter vault?	Does proposed Service Connection serve MORE THAN ONE building? Yes
ONLY property owned in subdivision or development?	Total Residential Units in Building: 0
Existing Property Details (Health Hazard)	Water Service Connection serves Fire Suppression System:
Length (in feet) of water service to be installed by plumber on property: 451	Water Service Connection for irrigation purposes only: No
Existing service connection(s) to be abandoned in County/State Road:	SU or MSU #: SU-3319-2021
	SU or MSU Project Name: King Farm Farmstead Water and Sewer Improvements
ALL structure(s) to be served by the requested service connection(s)/outside meter vault/setting OR were served by service connection(s)/outside meter vault/setting to be abandoned:	
<input type="checkbox"/> Main House (May include attached garage):	0
<input type="checkbox"/> Garage:	0
<input type="checkbox"/> Pool House:	0
<input type="checkbox"/> Guest House:	0
<input type="checkbox"/> Studio:	0
<input type="checkbox"/> Barn:	0
<input type="checkbox"/> Other:	

**WSSC Water Long-Form Permit
for Abandonment, Service Connection, and Meter Vault Only (External)**



Permit Number: **SC-1374210-2022** (Non-Res) New/Upgrade

Deferred Payment Plan Option:

Water Service Connection:
Sewer Service Connection:

SEP Mainline Extension Work Class:

New Connection or Abandonment for property not owned by the SEP applicant:
Payment Method Indicated:

Previously generated 'Permit Range' SC or AB permit #:

'Permit Range' permit # (SC or AB type) already exists on approved Job/Contract plans
Previously generated 'Permit Range' permit #:
Overwrite existing permit # with the 'Permit Range' permit #?

WSSC Water Long-Form Permit for Abandonment, Service Connection, and Meter Vault Only (External)



Permit Number: **SC-1374210-2022** (Non-Res) New/Upgrade

WSSC Water Meter/Billing Account Information

Water Meter Info:	
Water: Proposed Meter Size: 8"	Water: Existing Meter Size:
Water: Proposed Meter Type: FM - Fire and Domestic Service Meter	Water: Existing Meter Type:
Water: Proposed Meter Location: Outside	Water: Existing Meter Location:
WSSC Water Billing Account Info	
WSSC Water Billing Account #: 5143530000	
WSSC Water Meter ID #: N/A	
Manufacturer:	

Base Permit Information:

(PPIS) Base Permit #: 0	(XREF) SC Base Permit #: 0
Meter Base Permit #:	AB Base Permit #:
Water SC Permit # Serving Property:	Sewer SC Permit # Serving Property:
Existing Water Service Connection Size:	Existing Sewer Service Connection Size:
Water: Job/Report #: A14773	Sewer: Job/Report #: A14773
Availability of Water Main: Existing	Availability of Sewer Main: Existing
Water: Main Master Meter Permit #:	
Alternate Billing Account/Meter Service Address: 16100 FREDERICK RD	

Additional Service Connection, Abandonment, and Meter Vault Information:

Water:		Sewer:	
Water Service Connection Contract #: Pending		Sewer Service Connection Contract #: Pending	
Water Service Abandonment Contract #:		Sewer Service Abandonment Contract #:	
Water Outside Meter Vault/Setting Contract #:			
Water Meter Abandonment Contract #:			
Water: Date Permit Assigned to Contract:		Sewer: Date Permit Assigned to Contract:	
Water: Release for Service Date:		Sewer: Release for Service Date:	
Water: Substantial Completion Date:		Sewer: Substantial Completion Date:	
Water Abandonment Permit #		Sewer Abandonment Permit # 1374162	
Water: AIS Contract # Built From: 99-2562M		Sewer: AIS Contract # Built From: 81-5041A	
Water: Built with Mainline Extension? Improved		Sewer: Built with Mainline Extension? Improved	
Water: Shared Connection? No		Sewer: Shared Connection? No	
Private System Takeover? No		Dry Sewer? No	
Water: Ahead of Payment: No		Sewer: Ahead of Payment: No	

**WSSC Water Long-Form Permit
for Abandonment, Service Connection, and Meter Vault Only (External)**



Permit Number: SC-1374210-2022 (Non-Res) New/Upgrade

Current Permit Cost Information:

Fee Description	Current Actual Cost	Current Fees Due	Invoice #	Status
Appl-Built SC	\$2,434.00	\$0.00	00254197	Paid In Full
Total Permit Fees	\$2,434.00	\$0.00		

Payment Information:

Payment Transaction #	Invoice #	Payment Amount	Payment Method	Date Paid	Transaction Status
TRC-236439-17-02-2022	00254197	\$2,434.00	Check	02/17/2022	Complete
Total Payments		\$2,434.00			

Required Physical Documents:

Document Name	Required	Received Date

Contacts Associated to this Permit:

NAME	TYPE	PHONE	EMAIL	BILLING CONTACT?
Rang, Jordan	Applicant		jordan.rang@kci.com	<input checked="" type="checkbox"/>
Rang, Jordan	Engineer		jordan.rang@kci.com	<input checked="" type="checkbox"/>

APPENDIX G

CITY OF ROCKVILLE SEDIMENT CONTROL PERMIT

SEDIMENT CONTROL PERMIT (SCP)

PERMIT#: SCP2022-00021

DATE OF ISSUE: 12/21/2022

DATE OF EXPIRATION: 12/21/2024

PWK PERMIT:

TYPE OF SEDIMENT CONTROL PERMIT: SC

APPLICANT: CITY OF ROCKVILLE DEPT OF R&P
RECREATION & PARKS DEPARTMENT

ADDRESS: 111 MARYLAND AVENUE
ROCKVILLE MD 20850

DAYTIME PHONE: 240-314-8603

SITE ADDRESS: 16100 FREDERICK RD

SUBDIV: KF BAILEYS COMMONS LOT: BLK: A

TYPE OF WORK: The King Farm Farmstead Water and Sewer Improvements Project will install water and sewer mains on the City of Rockville's property to provide water and sewer service to the existing buildings. The project will tie into the existing WSSC water main within the public ROW. The sewer is tying into the SHA ROW.

CONDITIONS:

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: Craig Simoneau 12/21/2022
Director of Public Works

rev: fscp2pmt 12/21/2022

AAO 12/21/2022
AAO Staff Contact

SEDIMENT CONTROL PERMIT (SCP)

PERMIT#: SCP2022-00021

DATE OF ISSUE: 12/21/2022

DATE OF EXPIRATION: 12/21/2024

PWK PERMIT:

TYPE OF SEDIMENT CONTROL PERMIT: SC

APPLICANT: CITY OF ROCKVILLE DEPT OF R&P
RECREATION & PARKS DEPARTMENTADDRESS: 111 MARYLAND AVENUE
ROCKVILLE MD 20850

DAYTIME PHONE: 240-314-8603

SITE ADDRESS: 16100 FREDERICK RD

SUBDIV: KF BAILEYS COMMONS

LOT:

BLK: A

1. This permit is for sediment control only. All work must comply with the approved plans dated 09/22/22 and any subsequent revisions. Plan revisions, including field changes, must be reviewed and approved by the Rockville Department of Public Works.
2. The Applicant (Permittee) is the entity for which the City of Rockville Department of Public Works (DPW) has issued a permit. The Applicant is responsible for all contractors, agents, subcontractors or other entities completing work under this permit. The Applicant may authorize a person/entity in writing to serve as general contractor to perform work under this permit.
3. The permittee must schedule a pre-construction meeting with a minimum notice of 48 hours prior to meeting. Only one pre-construction meeting is necessary when multiple permits for the same project are issued. Failure to schedule a pre-construction meeting may result in the issuance of fines, revocation of permit(s) and/or the posting of a stop work order. The following representatives must be invited:
 - City Project Inspector, Ralph McElhinney at 240-314-8553 (rmcelhinney@rockvillemd.gov)
 - City Sediment and Erosion Control Inspector, Arthur Simpson at 240-314-8879 (asimpson@rockvillemd.gov)
 - City Forester, Paula Perez at 240-314-8705 (pperez@rockvillemd.gov) or City Forestry Inspector, Natasha Shangold at 240-314-8205 (nshangold@rockvillemd.gov)
 - WSSC
 - Any Agency Issuing a Permit
 - Utility Companies, if necessary.
 - Permittee, Owner, or Owner's Representative
 - General Contractor
 - Site Engineer

The following items must be discussed, as needed, during the pre-construction meeting:

 - Elements that require construction inspection, as determined by the City Inspector, must be completed during normal working hours, Monday through Friday, 7:00 am to 3:00 pm.
4. A copy of the permit MUST be on the job-site.
5. Permittee must contact MISS UTILITY at 811, 1 800 257-7777, or www.missutility.net for marking of existing utilities. MISS UTILITY requires two full business days notice. Existing utilities must be marked prior to the pre-construction meeting.
6. Provide any additional sediment control measures as directed by the City Inspector.
7. Comply with all conditions of PWK2022-00059 for work in public right-of-way including traffic control and abandonment of existing utilities.
8. Comply with all conditions from City Forester, FSD and FCP plans.
9. At the preconstruction meeting, specific details of above and below grade work near trees will be discussed. Permittee is solely responsible for obtaining the services of an ISA Certified Arborist or ASCA Consulting Arborist to determine the impacts of the proposed construction on privately owned trees and prescribe appropriate mitigation measures. Permittee must comply with all applicable laws or regulations when performing tree care operations.
10. Filter logs may be used in place of silt fence to protect existing trees if approved in advance by the City Sediment Control Inspector and Forestry Inspector.
11. Contractor is to comply with the Montgomery County Noise Ordinance. Apply for a waiver if needed.
12. If required, permittee must supply the Chief, Construction Management, with lab results (from a Maryland State Certified Lab) to confirm that all construction work and materials comply with project specifications. This includes acceptable certification for compaction and backfill.
13. No storage of materials or equipment will be permitted in public right-of-way.

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved:

*Craig Simoneau*_____
Director of Public Works

12/21/2022

rev: fscp2pmt 12/21/2022

AAO 12/21/2022
AAO Staff Contact

SEDIMENT CONTROL PERMIT (SCP)

PERMIT#: SCP2022-00021

DATE OF ISSUE: 12/21/2022

DATE OF EXPIRATION: 12/21/2024

PWK PERMIT:

TYPE OF SEDIMENT CONTROL PERMIT: SC

APPLICANT: CITY OF ROCKVILLE DEPT OF R&P
RECREATION & PARKS DEPARTMENT
ADDRESS: 111 MARYLAND AVENUE
ROCKVILLE MD 20850
DAYTIME PHONE: 240-314-8603

SITE ADDRESS: 16100 FREDERICK RD

SUBDIV: KF BAILEYS COMMONS LOT: BLK: A

14. No slopes shall be greater than 3:1 unless an approved low maintenance ground cover is planted. Under no circumstance shall a slope exceed 2:1. Approved low maintenance ground cover types include: Trumpet Honeysuckle, Virginia Creeper, Trumpet Vine or other plant species as approved by the City Horticulturist or City Forester.
15. Construction shall only disturb that area which can be completed and stabilized by the end of each working day. For areas to be paved, stabilization shall be the application of stone base. For areas to be vegetatively stabilized: permanent seed and soil stabilization matting or sod for all steep slopes, channels and swales; and permanent seed and mulch for all other areas. Any areas which cannot be stabilized by the end of each working day must have silt fence installed on the downslope side. In areas where existing trees are to be protected, filter logs shall be used instead of silt fence.
16. This permit does not approve any construction or traffic control within the Washington Suburban Sanitary Commission (WSSC), Maryland State Highway Administration (MSHA) (or Montgomery County's rights-of-way or easements. A separate application must be made through the governing agency. The contractor must also submit an access easement and agreement from the adjacent property owner before grading offsite for the southern driveway.
17. Any damage to public improvements must be repaired or replaced in accordance with City standards at the direction of the City Project Inspector.
18. Bonds will not be released until:
 - Bond will not be released until the site has been restored and stabilized to the satisfaction of the City Sediment Control Inspector and Chief, Construction Management. The permittee must comply with final stabilization requirements per the City Sediment Control Inspector.
 - All permitted work has been completed and inspected, and any damage to public right-of-way has been repaired or replaced to the satisfaction of the City Project Inspector and Chief of Construction Management.
 - All code violations pertaining to the project have been corrected and all outstanding fines have been paid.
19. All work covered by this permit must be completed by the expiration date which is two (2) years from date of permit issuance. Requests for permit extensions must be submitted in writing to the Department of Public Works 30 days prior to the expiration date, justifying the extension in accordance with Chapter 19, Section 29.

WATER SHED: ROC	TOTAL AREA OF PROPERTY:	
FLOODPLAIN VARIANCE REQ'D:	TOTAL AREA TO BE DISTURBED:	30,500
USE PERMIT NUMBER:	TOTAL IMPERVIOUSNESS PROPOSED:	

(INCLUDE 30' CONTIGUOUS RIGHTS OF WAY)

ESTIMATED COST OF WORK:	PERMIT FEES:	AMOUNT OF SECURITY:
S/C:	TOTAL FEES	S/C: BOND: L OF C: CASH:

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: *Craig Simoneau* 12/21/2022
Director of Public Works

rev: fscp2pmt 12/21/2022 AAO 12/21/2022
AAO Staff Contact

SEDIMENT CONTROL PERMIT (SCP)

PERMIT#: SCP2022-00021

DATE OF ISSUE: 12/21/2022

DATE OF EXPIRATION: 12/21/2024

PWK PERMIT:

TYPE OF SEDIMENT CONTROL PERMIT: SC

APPLICANT: CITY OF ROCKVILLE DEPT OF R&P
RECREATION & PARKS DEPARTMENT

ADDRESS: 111 MARYLAND AVENUE
ROCKVILLE MD 20850

DAYTIME PHONE: 240-314-8603

SITE ADDRESS: 16100 FREDERICK RD

SUBDIV: KF BAILEYS COMMONS LOT: BLK: A

ENGINEER: DEWBERRY
ADDRESS: 10461 MILL RUN CIRCLE
SUITE 300
OWINGS MILL MD 21117
DAYTIME PHONE: 301-364-1798

OWNER/DEVELOPER: MAYOR & COUNCIL OF ROCKVILLE
ADDRESS: 111 MARYLAND AVENUE
ROCKVILLE MD 20850
DAYTIME PHONE: 240-314-8500

This permit authorizes the above described construction subject to all applicable laws, regulations, terms and conditions herein and elsewhere.

Approved: Craig Simoneau 12/21/2022
Director of Public Works

rev: fscp2pmt 12/21/2022

AAO 12/21/2022
AAO Staff Contact

APPENDIX H

CITY OF ROCKVILLE PUBLIC WORKS PERMIT

City of Rockville Special Notes:

- 1 ALL TRAFFIC CONTROL DEVICES SHALL COMPLY WITH THE LATEST MARYLAND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MD MUTCD), STATE HIGHWAY ADMINISTRATION'S BOOK OF STANDARDS, SPECIFICATIONS AND GUIDELINES.
- 2 THE CONTRACTOR SHALL NOTIFY UPCOMING CONSTRUCTION TO THE CITY'S COMMUNITY ENGAGEMENT COORDINATOR (TEL: 240-314-8344) AND KING FARM MANAGEMENT (management@kingfarm.org, TEL: 301-987-0122).
- 3 IF BUS STOPS AND ROUTES WOULD BE IMPACTED BY THE PROPOSED TRAFFIC CONTROL PLANS, THE CONTRACTOR SHALL NOTIFY UPCOMING CONSTRUCTION TO APPROPRIATE AGENCIES AT LEAST 2 WEEKS PRIOR TO CONSTRUCTION (WMATA:202-962-6085,& COUNTY RIDE-ON: 240-777-5800).
- 4 THE CONTRACTOR SHALL CONTACT MISS UTILITY AT 1-800-257-7777, 5 (FIVE) WORKING DAYS BEFORE WORK.
- 5 THE CONTRACTOR SHALL MAINTAIN PEDESTRIAN CIRCULATIONS DURING THE CONSTRUCTION. FOR ANY SIDEWALK CLOSURE, THE CONTRACTOR SHALL SET UP APPLICABLE DETOUR SIGNS AND BARRICADES BASED ON THE MD SHA STANDARDS NO. 104.06-09A, 104.06-09B, 104.06-09C, OR 104.06-09D.
- 6 THE CONTRACTOR SHALL ONLY PERFORM AS MUCH WORK CAN BE COMPLETED DURING EACH WORK DAY.
- 7 AT THE END OF EACH WORK DAY, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY SIGNS THAT ARE NOT APPLICABLE.
- 8 IN CASE OF NIGHT TIME WORKS, SAFETY AND LIGHTING DEVICES SHALL PROPERLY BE INSTALLED TO PREVENT ANY WORK ZONE RELATED CRASHES.
- 9 ACCESS TO THE RESIDENTIAL PROPERTIES AND DRIVEWAYS MUST BE MAINTAINED AT ALL TIMES.
- 10 PERMANENT SIGNS IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SET UPS SHALL BE COVERED OR REMOVED AND SHALL BE RETURNED TO THE ORIGINAL PLACES AFTER THE COMPLETION OF THE CONSTRUCTION.
- 11 ADDITIONAL CONSTRUCTION WARNING SIGNS SHALL BE PLACED AS NEEDED WHEN DIRECTED BY THE CITY ENGINEER OR INSPECTOR.
- 12 ANY PAVEMENT MARKING, SIGNS, OR OTHER TRAFFIC CONTROL DEVICES DAMAGED BY THE CONTRACTOR SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
- 13 FOR ANY ROADWAY CLOSURE, THE CONTRACTOR SHALL PROVIDE PROPER VARIABLE MESSAGE SIGNS TO INFORM OF UPCOMING CLOSURE ON BOTH DIRECTIONS OF THE ROADWAY FOR AT LEAST 48 HOURS BEFORE THE CLOSURE.
- 14 THE CONTRACTOR SHALL USE CERTIFIED FLAGGERS DURING FLAGGING OPERATIONS.
- 15 IF THE PROPOSED TRAFFIC CONTROL PLANS REQUIRE PARKING RESTRICTIONS ALONG THE CITY ROADWAYS, THE CONTRACTOR SHALL POST PROPER SIGNS TO INDICATE TEMPORARY PARKING RESTRICTIONS AT LEAST 48 HOURS BEFORE THE CONSTRUCTION. AFTER COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE THE TEMPORARY SIGNS.

PUBLIC IMPROVEMENT PERMIT (PWK)

PERMIT #:	PWK2022-00059	DATE OF ISSUE:	12/20/2022
		EXPIRATION DATE:	06/20/2023
TYPE OF PERMIT:	DEV		
APPLICANT ADDRESS:	CITY OF ROCKVILLE DEPT OF R&P 111 MARYLAND AVENUE ROCKVILLE MD 20850	LOCATION:	16100 Frederick Road and 1101 Grand Champion Drive
DAYTIME PHONE:	240-314-8603		
SITE ADDRESS:	16100 FREDERICK RD		
SUBDIV:	KF BAILEYS COMMONS	LOT:	BLK: A

This permit is for the public works construction checked below:

- | | | |
|-------------------------------------|----------------------------------|--|
| <input checked="" type="checkbox"/> | Sewer Main Construction | Residential Concrete Aprons and Related Work, as directed |
| <input checked="" type="checkbox"/> | Water Main Construction | Commercial Concrete Apron and Related Work, as directed |
| <input checked="" type="checkbox"/> | Concrete Curb and Gutter | Plant Trees-type as specified/Landscaping |
| <input checked="" type="checkbox"/> | Street Pavement | Solid Sod incld. pegs where directed |
| | Grading and Excavation | Seeding |
| | Storm Drainage System | Pipes and Monuments by Md. Registered Surveyor, |
| | Street Lights | Adjustment of Manholes, Meters & Valves to finished grade |
| | Under Drainage System | Removal and Disposal of Existing Pavement |
| | Barricade Posts/Guard Rails | Certified As-Built Original Drawings |
| | Concrete Sidewalk | Asphalt Aprons (Temporary) |
| | Concrete/Brick Sidewalk | <input checked="" type="checkbox"/> Asphalt Sidewalk (Temporary) |
| | Sediment Control | Asphalt Curb (Temporary) |
| | Storm Water Management | Traffic Control/Lane Closure |
| <input checked="" type="checkbox"/> | Street Cut and Repair - Std. #60 | Forest and Tree Preservation Req. |
| | Gabions | Other |

CONDITIONS:

1. This permit is for work within the Grand Champion Drive Public Right-of-Way associated with the construction of new water and sewer connections on the City's Farmstead property to provide water and sewer service to the existing buildings. . All work must comply with the approved plans dated 09/22/22 and any subsequent revisions. Plan revisions, including field changes, must be reviewed and approved by the Rockville Department of Public Works.
2. The Applicant (Permittee) is the entity for which the City of Rockville Department of Public Works (DPW) has issued a permit. The Applicant is responsible for all contractors, agents, subcontractors or other entities completing work under this permit. The Applicant may authorize a person/entity in writing to serve as general contractor to perform work under this permit.
3. The permittee must schedule a pre-construction meeting with a minimum notice of 48 hours prior to meeting. Only one pre-construction meeting is necessary when multiple permits for the same project are issued. Failure to schedule a pre-construction meeting may result in the issuance of fines, revocation of permit(s) and/or the posting of a stop work order. The following representatives must be invited:
 - City Project Inspector, Ralph McElhinney at 240-314-8553 (rmcelhinney@rockvillemd.gov)
 - City Sediment and Erosion Control Inspector, Arthur Simpson at 240-314-8879 (asimpson@rockvillemd.gov)
 - City Forester, Paula Perez at 240-314-8705 (pperez@rockvillemd.gov) or City Forestry Inspector, Natasha Shangold at 240-314-8205 (nshangold@rockvillemd.gov)
 - Any Agency Issuing a Permit, WSSC
 - Utility Companies (IF APPLICABLE)
 - Permittee, Owner, or Owner's Representative
 - General Contractor
 - Site Engineer

The following items must be discussed, as needed, during the pre-construction meeting:

 - Elements that require construction inspection, as determined by the City Inspector, must be completed during normal working hours, Monday through Friday, 7:00 am to 3:00 pm.
 - Haul routes, contractor parking and maintenance of traffic
 - WSSC system shut downs
4. Copy of permit MUST be on job-site
5. The permittee must contact the City Department of Public Works Traffic and Transportation Division at 240-314-8500 at least two full business days prior to any excavation to locate underground traffic control devices, including red light cameras and speed cameras

This permit authorizes the above described construction subject to all applicable laws, regulations, terms, and conditions herein and elsewhere.

Approved: Craig Simoneau 12/21/2022
 Director of Public Works

rev: fpwkprmt 12/21/2022

AAO 12/21/2022
 AAO Staff Contact

PUBLIC IMPROVEMENT PERMIT (PWK)

PERMIT #: **PWK2022-00059**

DATE OF ISSUE: **12/20/2022**

EXPIRATION DATE: **06/20/2023**

TYPE OF PERMIT: **DEV**

APPLICANT ADDRESS: **CITY OF ROCKVILLE DEPT OF R&P
111 MARYLAND AVENUE
ROCKVILLE MD 20850**

LOCATION: **16100 Frederick Road and 1101
Grand Champion Drive**

DAYTIME PHONE: **240-314-8603**

SITE ADDRESS: **16100 FREDERICK RD**

6. See Sediment Control Permit SCP2022-00021.
7. Test pits must be conducted at all proposed crossings of existing City utilities PRIOR to beginning construction. Revisions to approved plans are required if the clearances and conditions are not as shown on the approved plans. All test pits in public streets shall be restored as directed by the City Project Inspector.
8. Any damage to public improvements including street trees must be repaired or replaced in accordance with City standards at the direction of the City Project Inspector.
9. Permittee is responsible for a 2-inch mill and overlay within the limits as shown on the approved plan or as directed by the City Project Inspector. Non-residential will require 100-foot minimum mill and overlay (50 feet each side) and residential a 50-foot minimum mill and overlay (25 feet each side of trench). Based on field conditions, the Chief of Construction Management may permit a permanent asphalt patch in accordance with City of Rockville Standards or may modify the limits of mill and overlay. Permittee is responsible for installing signs and pavement markings removed or damaged during construction under this permit.
10. All restoration work in City right-of-way to be accomplished in accordance with City of Rockville Standards and Details for Construction or Montgomery County Government Standards and Details for Construction, if indicated, or as otherwise directed by Chief of Construction Management or this permit.
11. If utility facilities are damaged, the utility company owning the damaged facility shall be called immediately. In addition, City Utilities should be called immediately at 240-314-8567. If damage results in a gas or hazardous liquid leak, creates a hazard, or potentially endangers life, health or property, permittee must immediately notify both the utility company owning the damaged facility and emergency response crews (through 911).
12. Grass areas disturbed by construction are to be graded to provide positive drainage and either be seeded or sodded as directed by the City Project Inspector. If seeded, disturbed area must be stabilized to prevent erosion.
13. This project is within the Washington Suburban Sanitary District (WSSD). All work must comply with the approved Commission (WSSC) plans and permit. All water shutoffs should be coordinated through WSSC.
14. Maintain a minimum 1-foot vertical clearance between the outside of proposed water or sewer service connections and other utilities including water, sewer, and storm drain.
15. If required, permittee must supply the Chief of Construction Management with lab results (from a Maryland State Certified Lab) to confirm that all construction materials and work comply with project specifications. This includes acceptable certification for compaction and backfill.
16. All excavation performed under this permit must be done in strict compliance with Maryland Occupational Safety and Health Administration (MOSH) excavation policies and practices. Failure to comply with MOSH requirements will result in a Stop Work Order being issued by the City in addition to possible action taken by MOSH.
17. All utility trenches in public roadways, paved easements or under sidewalks are to be backfilled with Graded Aggregate Base (GAB) stone to the proposed subgrade. See City roadway repair standard Detail 60 (dated 6-3-2014).
18. No excavation to be left open overnight. At the end of each day, all trenches shall be backfilled, all equipment secured, and the area left in a safe condition. Steel plates are allowed to remain no longer than seven days. Plates are to be notched (recessed) and pinned to the roadway. Plates must be large enough to allow a minimum of one-foot bearing on all four sides of the pavement surrounding the excavation. The steel plate requirements only apply to public streets.
19. No storage of materials or equipment will be permitted in public right-of-way.

This permit authorizes the above described construction subject to all applicable laws, regulations, terms, and conditions herein and elsewhere.

Craig Simoneau

Approved: _____ 12/21/2022
Director of Public Works

rev: fpwkprmt 12/21/2022

AAO 12/21/2022
AAO Staff Contact

PUBLIC IMPROVEMENT PERMIT (PWK)

PERMIT #: **PWK2022-00059**

DATE OF ISSUE: **12/20/2022**

EXPIRATION DATE: **06/20/2023**

TYPE OF PERMIT: **DEV**

APPLICANT ADDRESS: **CITY OF ROCKVILLE DEPT OF R&P
111 MARYLAND AVENUE
ROCKVILLE MD 20850**

LOCATION: **16100 Frederick Road and 1101
Grand Champion Drive**

DAYTIME PHONE: **240-314-8603**

SITE ADDRESS: **16100 FREDERICK RD**

- 20. Permittee shall comply with the standard SHA details provided on the approved plans dated 9/22/22 for construction in the public right-of-way. One travel lane along Grand Champion Drive may be closed between 7:00 AM to 5:00 PM Monday through Friday during construction in the public right-of-way. Access to properties along Grand Champion Drive must be maintained at all times. If no work is occurring all lanes must be opened to traffic. No secondary lane closures may occur, at any time, without permission of the City Project Inspector. Work zone control must be in accordance with the latest edition of the MUTCD. No lane closures are permitted during rain or snow events.
- 21. Pedestrian traffic within the area of construction must be maintained at all times. Traffic control signs must not be placed in the sidewalk unless the intent is to close that sidewalk. The sidewalk on one side of Grand Champion Drive must remain open during all phases of construction. Any temporary sidewalk closures must be coordinated with the City Inspector. When sidewalks are closed, pedestrians must be directed to cross the street at the nearest intersection to an unobstructed sidewalk. Any diversion of pedestrians to an unobstructed sidewalk must be signed in accordance with the latest edition of the MUTCD.
- 22. Permittee must provide written verification to the City Inspector that private property owners impacted by construction have been notified prior to the start of the work. Permittee must maintain vehicular and pedestrian access to all adjacent properties during construction including truck access for deliveries and refuse service.
- 23. Permittee must receive permission of property owners before working on private property.
- 24. Construction and contractor parking will not be permitted on residential neighborhood streets. Permittee or contractor must provide suitable parking locations for employees. Contractor must submit a plan for contractor parking no later than the preconstruction meeting. The contractor must inform employees of approved parking locations before and during construction and enforce the approved parking locations. Should approved parking locations not be adhered to, the City may place a stop work order on the project.
- 25. Comply with all conditions from City Forester, FSD and FCP plans. FTPO bond shall be held for five years or until released by the City Forester.
- 26. At the preconstruction meeting, specific details of above and below grade work near City street trees will be discussed. If tree pruning and stress reduction measures are required by the City Forester, then the work must be performed under the supervision of a person who is both a Maryland Licensed Tree Expert (per State of MD law) and ISA Certified Arborist. These measures shall be done in accordance with ANSI A300 standards. Applicant shall obtain a Maryland Department of Natural Resources Roadside Tree Permit for all work on trees within the public right-of-way. No excavation can occur within 15 feet of any City street trees unless approved by the City Forester. Below grade utility line work must use directional boring as a method of installation in and around street trees. Boring must begin at least 15 feet from the tree and be a minimum of 3 feet below grade. Tree protection fence is required for all City street trees.
- 27. Permittee is responsible for installing signs and pavement markings under this permit. See Signage and Marking Plan. Permittee is responsible for the protection and maintenance of all existing traffic control facilities during construction. Any traffic control facilities damaged or removed during construction (including signal loops) must be replaced "in kind" at the direction of the Traffic and Transportation Division.
- 28. Permittee is responsible for installing streetlights under this permit. See lighting and landscape plan. Bonds will not be released until the street lighting has been approved and installed.
- 29. Contractor is to comply with the Montgomery County Noise Ordinance. Apply for a waiver if needed.
- 30. This permit does not approve any construction or traffic control within the Maryland State Highway Administration (MSHA) or Montgomery County's rights-of-way or easements. A separate application must be made through the governing agency.

This permit authorizes the above described construction subject to all applicable laws, regulations, terms, and conditions herein and elsewhere.

Approved: Craig Simoneau 12/21/2022
Director of Public Works

rev: fpwkprmt 12/21/2022

AAO 12/21/2022
AAO Staff Contact

PUBLIC IMPROVEMENT PERMIT (PWK)

PERMIT #: **PWK2022-00059**

DATE OF ISSUE: **12/20/2022**

EXPIRATION DATE: **06/20/2023**

TYPE OF PERMIT: **DEV**

APPLICANT ADDRESS: **CITY OF ROCKVILLE DEPT OF R&P
111 MARYLAND AVENUE
ROCKVILLE MD 20850**

LOCATION: **16100 Frederick Road and 1101
Grand Champion Drive**

DAYTIME PHONE: **240-314-8603**

SITE ADDRESS: **16100 FREDERICK RD**

31. Bonds will not be released until:

All permitted work has been completed and inspected, and any damage to public right-of-way has been repaired or replaced to the satisfaction of the City Project Inspector and Chief of Construction Management.

The City receives an approved As-Built plan and a scanned copy of the approved As-Built, certified by a Professional Land Surveyor or Professional Engineer.

All code violations pertaining to the project have been corrected and all outstanding fines have been paid.

A recorded copy of all required easements have been submitted to the City.

32. All work covered by this permit must be completed by the expiration date which is two (2) years from date of issuance. Requests for extensions must be submitted in writing to the Department of Public Works 30 days prior to the permit expiration date justifying the permit extension in accordance with Chapter 21, Section 20.

ENGINEER: **KCI TECHNOLOGIES, INC.**

ADDRESS: **936 RIDGEBROOK ROAD
SPARKS MD 21152**

DAYTIME PHONE: **410-316-7800**

ESTIMATED COST OF WORK:

PERMIT FEES:

AMOUNT OF SECURITY:

P / W: OTHER:	TOTAL FEES:	P / W: OTHER: BOND: L OF C: CASH:
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This permit authorizes the above described construction subject to all applicable laws, regulations, terms, and conditions herein and elsewhere.

Craig Simoneau

Approved: _____ 12/21/2022
Director of Public Works

rev: fpwkprmt 12/21/2022

AAO 12/21/2022
AAO Staff Contact

APPENDIX I

CITY OF ROCKVILLE FORESTRY PERMIT



City of
Rockville
Get Into It

111 Maryland Avenue | Rockville, Maryland 20850-2364 | 240-314-5000
www.rockvillemd.gov

May 25, 2022

City of Rockville
Recreation and Parks Department
111 Maryland Avenue
Rockville, MD
20850

Re: Final Forest Conservation Plan/Tree Save Plan, [FTP2022-00012](#) Approval Conditions

Dear Chris Henry,

The Final Forest Conservation Plan/Tree Save Plan revisions received on May 17, 2022 for “King Farm Farmstead” utility project have been reviewed and found to be compliant with the Forest and Tree Preservation Ordinance and applicable ordinances/requirements by the Community Planning and Development Services Department.

Approval of Final Forest Conservation Plan is pending the following requirements:

- The Historic District Commission approves the application as proposed
- The applicant completes the required items listed under the “Conditions of Approval for Final Forest Conservation Plans.”
- The applicant completes the required items listed under the “Forestry Permit” section in this letter.

FOREST AND TREE PRESERVATION ORDINANCE (FTPO) REQUIREMENTS

The proposed Final Forest Conservation Plan/Tree Save Plan submission to the City requires compliance with the City of Rockville's FTPO. The City's Community Planning & Development Services office approved a Natural Resources Inventory/Forest Stand Delineation plan on January 19, 2022.

FOREST CONSERVATION

The forest conservation requirement for this project is based on the following:

- Tract area: 4.68 acres
- Site zoning: MXD/Park
- Existing forest: None
- Afforestation required: .70 acres

*Project is identified as a linear project and is exempt from afforestation and minimum tree cover requirements.

FOREST CONSERVATION

As a linear project as defined in the Forest and Tree Preservation Ordinance, this project is exempt from both afforestation and minimum tree cover.

MINIMUM TREE COVER

The project is exempt from minimum tree cover due to its' status as a linear project.

SIGNIFICANT TREES/SPECIMEN TREES

Significant trees are defined as trees located outside of a forest and being 12" DBH (diameter at breast height) and trees located within a forest and being 24" DBH and greater. Specimen trees are defined as trees with a diameter equal to or greater than 30" DBH or trees that are 75% of the diameter of the state champion tree of that species. The application is proposing to remove a total of 4 significant trees from the property, of which, 3 are specimen trees. Staff notes that 2 of the specimen trees are Silver Maples that are in decline and should be removed for maintenance reasons.

Significant Trees

The project proposes to remove 4 significant trees from the property. The replacement requirement is 20 trees to be planted on the property which is being met with the applicant's proposed plan.

STREET TREES

The project has frontage on Frederick Road, which is a state highway authority (SHA) right of way. The plan is not depicting any street tree removals.

Street tree removals and proposed plantings within jurisdictional right of ways outside City limits must be approved by the corresponding jurisdictional authority.

CONDITIONS OF APPROVAL FOR FINAL FOREST CONSERVATION PLANS

A Final Forest Conservation Plan must be reviewed and approved by the City with signature site plan submission and prior to release of any Building, Forestry and DPW permit associated with site plan submission. The Final FCP shall be generally consistent with the PFCP and approval letter and provide tree plantings consistent with outlined requirements.

Final FCP and site plan must comply with FTPO and Zoning Ordinance. In addition to compliance with applicable codes, the following specific directives must be followed:

1. Ensure tree plantings meet minimum spacing requirements, which include:
 - a. Shade trees spaced 20 feet apart, large, or small evergreens and ornamental trees spaced 15 feet apart. Shade trees 15 feet from ornamental trees. Spacing between evergreens and shade trees is either 15 or 20 feet, as determined by the City because distance is dependent on the growth habit of the evergreen, which is species/cultivar specific.
 - b. 10 feet from wet and dry utilities, except when these are under streets.
 - c. 15 feet from street lights and driveways (DPW to provide requirements for sight distances and stop signs)
 - d. 10 feet from inlets.
 - e. Shade trees and large evergreens shall be spaced a minimum of 7 feet, and ornamental trees and small evergreens to be spaced a minimum of 5 feet from micro bioretention underdrain pipes (6" diameter and smaller)

- f. Street trees can be planted over stormwater conveyance pipes when pipes have a minimum of 4 feet of cover and are immediately behind the curb.
 - g. Trees planted to meet FTPO or other forestry requirements on the site may not be located within existing or proposed easements (excluding forest conservation easements).
2. Use current city tree tables, FTPO notes and details.
 3. Soil augmentation per the city's Forest and Tree Preservation Ordinance Notes will be required prior to installation of new trees within existing green space or where pavement was previously located. The current ordinance notes at the time of Final FCP submission shall be included on the Final FCP.
 4. **Applicant must obtain Historic District Commission approval for the project as proposed prior to Final Forest Conservation Plan approval.**

FORESTRY PERMIT

The applicant is required to obtain a Forestry permit prior to forestry sign off on any sediment control permit and building permit associated with the site plan. The following items are required before issuance of the Forestry permit:

- Submission of the FTP permit application and fee.
- Approval of a Final Forest Conservation Plan which is consistent with the items listed in this letter under "Conditions of Approval for Final Forest Conservation Plan."

Any significant modification or revision to the project must be submitted to City staff for review and approval in addition to any Historic District approval required.

Sincerely,

Shaun Ryan
Principal Planner – Landscape Architect
City of Rockville, Maryland

Cc:

John Foreman, Development Services Manager
Chris Henry, Recreation and Parks

FORESTRY PERMIT

PERMIT #: **FTP2022-00012** DATE OF ISSUE: 12/15/22
EXPIRATION DATE: 12/15/2024
PERMITEE: **DEPARTMENT OF RECREATION AND PARKS**
ADDRESS: **111 MARYLAND AVENUE**
ROCKVILLE MD 20850

PHONE: Primary: **240-314-8608**

Project Name: 16100 FRED. RD & 1101 GND CHMP SITE ADDRESS: 16100 FREDERICK RD
SUBDIVISION: KF BAILEYS COMMONS LOT: BLK: A

PROJECT DESCRIPTION:

NRI/FSD and FCP application for King Farm Farmstead to be completed by the Department of Recreation and Parks.

THIS PROJECT REQUIRES THE FOLLOWING:

PRECONSTRUCTION MEETING
SIGNIFICANT TREE REMOVAL
ROOT PRUNING
TREE PRUNING
[REDACTED]
TREE PROTECTION FENCE
TREE PROTECTION SIGNAGE
[REDACTED]
PREPLANTING MEETING

SIGNIFICANT TREE PLANTING
ON-SITE PLANTING
[REDACTED]
POST PLANTING INSPECTION
POST CONSTRUCTION MEETING
[REDACTED]
[REDACTED]
[REDACTED]
OTHER

CONDITIONS:

1. The project must be built in accordance with the approved FCP dated 9/16/2022 and 11/17/2022. Failure to build per these plans may result in delays obtaining an Occupancy Permit.
2. This permit is for the construction and improvements related to FTP2022-00012. FTP2022-00012 encompasses two projects on the subject parcel. The first project is utility work involving water and sewer improvements. The second project is for a 47 space parking lot with associated infrastructure.
3. You must notify MISS UTILITY at 1-800-257-7777, 811, or at www.missutility.net at least 48 hours prior to construction.
4. Schedule a pre-construction meeting with the Forestry Inspector, Natasha Shangold at nshangold@rockvillemd.gov and the Senior Sediment and Erosion Inspector, Arthur Simpson at 240 314-8879 or asimpson@rockvillemd.gov. No clearing, grading, or tree removals may be done prior to this meeting.
5. All tree work, including removals, tree protection measures, and stress reduction measures shall be performed by an arborist who is both a Maryland Licensed Tree Expert (LTE) and an ISA Certified Arborist. Proof of these certifications must be provided to the Forestry Inspector.
6. Provide any additional tree save measures as directed by the Forestry Inspector.
7. The applicant is required to schedule a pre planting meeting with the Forestry Inspector prior to installing any plant material. The tree locations must be staked in the field prior to this meeting.
8. All landscape material must be installed per the approved Landscape and Forest Conservation Plan. No substitutions are permitted without prior written permission of the City Forester.
9. Apply approved wildlife protection to newly planted trees as directed by the Forestry Inspector. Deer protection is REQUIRED.
10. This permit is for Forest Conservation only. All work must comply with the approved plans dated 9/16/2022 and 11/17/2022 and all plan revisions, including field changes must be reviewed and approved by Forestry inspector.
11. All work covered by permit must be completed by the expiration date which is two years from date of issuance. Requests for extensions must be submitted in writing to the City Forester 30 days prior to the permit expiration date justifying the permit extension.

THIS PERMIT AUTHORIZES THE ABOVE DESCRIBED CONSTRUCTION SUBJECT TO ALL APPLICABLE LAWS, REGULATIONS, TERMS, AND CONDITIONS HEREIN AND ELSEWHERE

APPROVED: _____ 12/15/22
Principal Planner - Landscape Architect

REV: FFTPPRM 12/15/22 CRD 12/15/22

FORESTRY PERMIT

PERMIT #: FTP2022-00012 **DATE OF ISSUE:** 12/15/22
EXPIRATION DATE: 12/15/2024
PERMITEE: DEPARTMENT OF RECREATION AND PARKS
ADDRESS: 111 MARYLAND AVENUE
 ROCKVILLE MD 20850

PHONE: Primary: 240-314-8608

Project Name: 16100 FRED. RD & 1101 GND CHMP **SITE ADDRESS:** 16100 FREDERICK RD
SUBDIVISION: KF BAILEYS COMMONS **LOT:** **BLK:** A

PROJECT DESCRIPTION:

NRI/FSD and FCP application for King Farm Farmstead to be completed by the Department of Recreation and Parks.

ENGINEER: Primary:
ADDRESS: (W) (H) (F)

PHONE:

ESTIMATED COST OF WORK:	PERMIT FEES:	AMOUNT OF SECURITY:
PLANTING:	Permit Fee	\$0.00
OTHER:	Permit Fee	\$0.00
	Pre FCP	\$0.00
	Permit Fee	\$0.00
	TOTAL FEES:	\$0.00
		PLANTING:
		OTHER:
		BOND:
		L OF C:
		CASH:
		OTHER:

THIS PERMIT AUTHORIZES THE ABOVE DESCRIBED CONSTRUCTION SUBJECT TO ALL APPLICABLE LAWS, REGULATIONS, TERMS, AND CONDITIONS HEREIN AND ELSEWHERE

APPROVED: _____ 12/15/22
 Principal Planner - Landscape Architect

REV: FFTPPRM 12/15/22 CRD 12/15/22

APPENDIX J

**CITY OF ROCKVILLE
HDC APPROVAL LETTER**



111 Maryland Avenue | Rockville, Maryland 20850-2364 | 240-314-5000
www.rockvillemd.gov

August 2, 2022

City of Rockville Recreation and Parks Department
c/o Tim Chesnutt, Director of Recreation and Parks
111 Maryland Avenue
Rockville, MD 20850

Re: Certificate of Approval HDC2022-01074, 16100 Frederick Road, King Farm Farmstead

Director Chesnutt:

On June 16, 2022, the Historic District Commission (HDC) approved Certificate of Approval for application HDC2022-01074 which proposed to install water and sewer utilities at the King Farm Farmstead. The HDC found that the application meets the *Secretary of the Interior's Standards for Rehabilitation under criteria #1, #2, and #9*.

The following month, on July 21, 2022, the HDC approved Certificate of Approval for the above-referenced application which proposed construction of a forty-seven (47) space parking lot. The HDC found that the work meets adopted *Rockville Technical Guide #7 – Landscaping and Trees, and #8 – Off-Street Parking*. The HDC likewise conditioned project approval that no less than four (4) of the required replacement tree plantings will be a minimum of 4" caliper at the time of planting in order to provide more immediate canopy replacement for the farmstead.

This letter serves as your HDC Certificate of Approval only. Please note that Section 25.07.13.e of the City of Rockville Zoning Ordinance specifies that this Certificate of Approval becomes void if the work has not commenced within twelve (12) months of the date of approval. For good cause shown, the HDC may grant two (2) time extensions of up to six (6) months each. Please contact the City of Rockville's Inspection Services Division (ISD), at 240-314-8240 or permits@rockvillemd.gov, to inquire about other City permits that may be required for the project.

Please call 240-314-8200 to contact the City of Rockville Historic Preservation Staff at least one week before beginning the approved work. With your signature below, you (the applicant) agree to allow City Staff to enter the property to inspect the ongoing and completed work for compliance with the Certificate of Approval.

Sincerely,

Ricky Barker

Director of Planning and Development Services

Page 2

Please sign this letter of approval and return one copy to the Department of Community Planning and Development Services, Rockville City Hall, 111 Maryland Avenue, Rockville, MD 20850.



Applicant's Signature

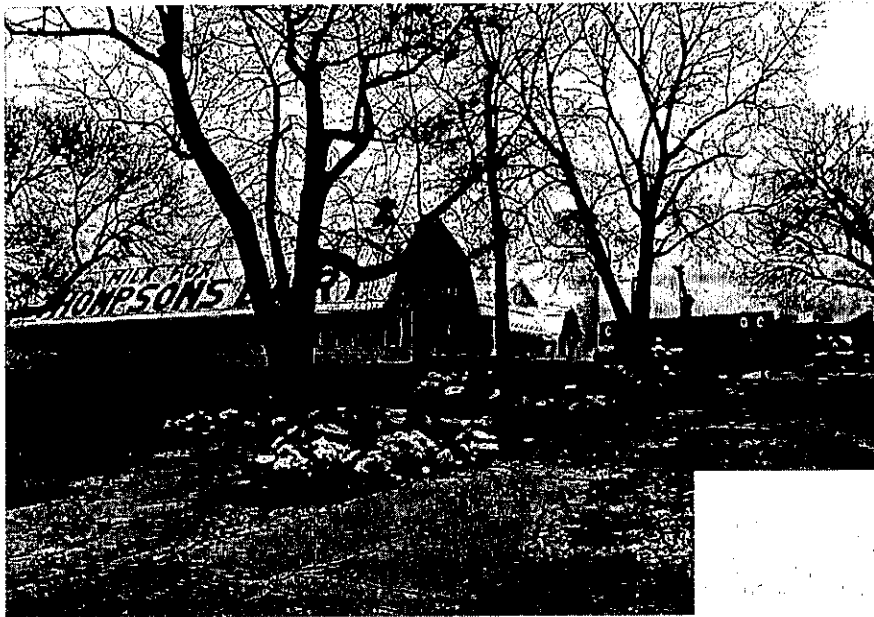


Applicant's Name Printed

cc: R. James Wasilak, Chief of Zoning
Historic District Commission
Mayor and Council of Rockville
Nancy Pickard, Executive Director of Peerless Rockville
Kate Gould, President of King Farm Community Garden
Pat Martin

APPENDIX K

BORING LOGS



GEOTECHNICAL ENGINEERING MEMO REPORT
KING FARM FARMSTEAD WATER & SEWER IMPROVEMENTS
1101 GRAND CHAMPION DRIVE, ROCKVILLE, MD

KCI Project# 121906247.01

Prepared for
Recreation and Parks Department
City of Rockville, Montgomery County, MD

Prepared by
KCI Technologies, Inc.

Date: January 2021



**RISE TO THE
CHALLENGE**

www.kci.com | ISO 9001:2015 Certified



GEOTECHNICAL MEMO REPORT

Direct: (410) 316-7888

Fax: (410) 316-7935

To: Mr. Mauricio Daza, Parks and Facilities Development Coordinator, Recreation and Parks Department, City of Rockville, MD (email: mdaza@rockvillemd.gov)

Cc: Jordan Rang, PE (Project Engineer, KCI-Water & Wastewater Engineering Practice)

From: ^{KBA} Kofi B. Acheampong, D.GE, PhD, PE, ENV SP; Dennis P. Coyle, Snr. Scientist (KCI-Geotechnical Engineering Practice)

Date: January 28, 2021

Subject: Geotechnical Subsurface Exploration and Evaluations
King Farm Farmstead Water and Sewer Improvements
1101 Grand Champion Drive
Architectural and Engineering Services - City of Rockville Agreement #18-18
City of Rockville, Montgomery County, Maryland
KCI Project No. 121906247.01



Exp. 12/18/22

As requested, KCI-Geotechnical Engineering Practice (KCI) is pleased to submit this geotechnical memorandum report for the proposed water and sewer lines improvements at the existing King Farm Farmstead facility located at 1101 Grand Champion Drive in the City of Rockville, Montgomery County, Maryland. The site location map is shown on the attached Figure 1 (Appendix A). The facility is owned by the Department of Recreation and Parks, City of Rockville.

This report contains the results of subsurface explorations, laboratory testing results, and geotechnical recommendations for design and construction of the proposed water and sewer line improvements.

PROPOSED CONSTRUCTION

Our understanding of this project is based upon information provided to us by Jordan Rang of KCI. This information included the Preliminary *King Farm Farmstead Water and Sewer Improvements Plans* (dated 5/24/2011) and prepared by KCI; and revised plans by KCI (dated 10/2020). The plans show the proposed water and sewer lines profiles and alignment crossing the project site between Grand Champion Drive and Frederick Road (MD Route 355), west to east. In addition, the plans show existing and proposed site topography, with existing site features including several buildings, community garden area, gravel and paved access roadway crossing the project site. The proposed construction will consist of new water and sewer pipelines, about 10 feet horizontal or lateral separation, along an existing gravel and asphalt paved access roadway as discussed briefly below:

Proposed Water Line: The new water line includes 2", 4" and 8" DIP CL 54 polywrapped pipes over approximately 460 linear foot, between approximate waterline Sta. 0+00 and Sta. 4+60, from Grand Champion Drive on the west and along the access driveway within the facility. The proposed water pipe inverts will vary between approximate El. 513.2 and El. 499.0. The 8" DIP will be connected to a new 6"



FM Meter Vault (8'x6'x10' depth) with 4" bypass line. The meter vault is located within Washington Suburban Sanitary Commission (WSSC) right-of-way at Sta. 0+50 and connected to the existing 8" water near Grand Champion Drive. The pipe will be located a minimum of four feet below finished site grades.

Proposed Sewer Line: The new 8" SDR-35 sewer line will be located about 10 feet north of the water line, and span about 600 linear feet between approximate sewer baseline Sta. 0+00 and Sta. 6+00 from the existing manhole MHU029 located on Frederick Rd (MD Route 355 on the east. The proposed 8" pipe inverts will vary between approximate El. 510.88 and El. 488.54, west to east. The new sewer line will also include other appurtenant structures such as 4" diameter precast concrete manholes along the alignment. The sewer line will be located at a minimum of four feet below finished site grades.

Proposed water and sewer pipeline construction will include conventional cut-and-cover excavation and trenching methods. Pipe line installations will typically entail excavations of less than 5 feet; however, deeper excavations in excess of 5 feet and/or up to 10 feet or more can occur locally at substructures (such as FM meter vault and manhole) locations.

SCOPE OF SERVICES

The purpose of the subsurface exploration along the water and sewer pipeline alignments was to determine the characteristics of the site-specific soil conditions, and identify potential bedrock (if any) and groundwater depths (if encountered), and provide the following:

- Brief review and description field and laboratory test procedures conducted and results;
- Review of subsurface soil and groundwater conditions encountered with strata descriptions;
- Depths to bedrock and rock excavation and rippability properties (if encountered);
- Discussions of geotechnical issues;
- Foundation recommendations for the water and sewer pipeline bedding and subgrade; and
- General construction recommendations for site/subgrade preparations, re-use site soils, compaction requirements, excavation difficulties, and temporary groundwater control.

Note that assessments of site environmental conditions or the presence or absence of pollutants in the soil, rock, surface water, or groundwater of the site were beyond the proposed objectives of our exploration.

EXISTING SITE CONDITIONS

KCI conducted site reconnaissance on December 24, 2020 and January 8, 2021 (during our subsurface explorations) to observe and document existing site features and surficial conditions. We used the information gathered during our site visit to help us interpret the subsurface data, and to detect conditions that could impact our evaluations and recommendations.

The project site is inside the existing King Farm Farmstead recreational park. The project site has several buildings including a maintenance facility, a barn, covered pavilion, farm shed, and a community garden. In addition, there are trees and shrubs, and a road that is asphalt paved on the northeast portion of the site and gravel paved on the southwest portion. There is a tree covered berm separating the park from Grand Champion Drive to the southwest. Site topography is generally level and slopes gently downward to the northeast and southeast, the elevation ranges from approximately (El.) 525 to Del. 480. The ground surface is generally covered with grass with the exception of asphalt and gravel paved access roads.

We noted evidence of buried utilities (pins flags and paint marking) to the southwest of the existing



house. We did not observe evidence of rock outcropping, water ponding, or unstable ground conditions.

GEOLOGIC SETTING

Based on the *Physiographic Map of Maryland* (2008), the project site is located within the Hampton Upland District of the Upland Section of the Piedmont Plateau Physiographic Province. The Piedmont Plateau Physiographic Province lies to the east of the Blue Ridge Mountains and to the west of the Fall Line, and consists of crystalline metamorphic and igneous rock. Bedrock in the eastern part of the Piedmont consists of schist, gneiss, gabbro, and other highly metamorphosed sedimentary and igneous rocks of probable volcanic origin. Soils of the Piedmont Plateau are typically developed from materials weathered in place from igneous and metamorphic rocks.

According to the *Geologic Map of the Frederick 30' x 60' Quadrangle, Maryland, Virginia, and West Virginia* (2007), the specific geologic unit underlying the site is the Cambrian-aged Migmatite Member (€Zmm) of the Mather Gorge Formation. The Migmatite Member typically consists of light to dark gray, quartz and mica rich migmatite formed from the partial melting of schist and metagraywacke.

According to the *Natural Resources Conservation Service (NRCS) Web Soil Survey* mapping, site soils are mapped predominantly as Glenelg silt loam (2B). Glenelg silt loam typically consists of well drained clay loam, silt loam, and loam with 3 to 8 percent slopes that are classified as Hydrologic Soil Group “B”.

SUBSURFACE CONDITIONS

Subsurface Exploration Program: KCI’s drilling subcontractor, CenKen Group, performed four borings using a CME 45 ATV-mounted drill rig at the site on January 8, 2021. KCI designated the borings as B-1 through B-4. Approximate boring locations are provided on Figure 2 (Appendix A). We advanced the borings to a depth of 10 feet below existing ground surface (bgs) as indicated in Table 1 below.

Table 1: Summary of As-Drilled Test Borings						
Prop. Feature	Boring No.	Boring Depth (ft)	Ex. GS Elev.* (ft)	Groundwater Depth (ft)		Cave-In Depth (0-hr) (ft)
				in Augers During Drilling	24-hours after Drilling**	
Water FM Vault	B-1	10	519.5	NE	NR	8.0
Sewer	B-2	10	517.0	NE	NR	8.0
Sewer	B-3	10	508.0	NE	NR	7.0
Sewer	B-4	10	498.6	NE	NR	7.0

NOTES: NE = Not encountered; NR = Not recorded.
 * Existing Ground Surface Elevations estimated from site topographic plan.
 ** Due to safety concerns, borings were backfilled immediately after drilling, 24-hour readings were not recorded.

Standard Penetration Test (SPT) Borings: We performed standard penetration test (SPT) sampling in general accordance with ASTM D 1586 test method using Hollow Stem Augers (HSA). The SPT method consists of advancing a two-inch diameter sampling spoon 18 inches by driving it with a 140-pound automatic hammer falling 30 inches. The values reported on the boring logs are the blows required to



advance three successive six-inch increments. The first six-inch increment is considered as seating. The sum of the number of blows for the second and third increments is the "N" value. The "N" value is used to determine the relative density or compactness of the soil.

We obtained representative soil samples and used them to classify the soils encountered. We placed recovered representative disturbed soil samples in six-inch glass jars and transported them to the laboratory for testing. A KCI geotechnical engineer visually classified the recovered soil samples in general accordance with *ASTM D 2488 Standard Practice for Description and Identification of Soils*. We classified soil samples with respect to texture based on the Unified Soil Classification System (USCS) in accordance with ASTM D2487. Boring logs describing the subsurface soils and groundwater conditions encountered are provided in Appendix B.

Bulk Soil Sampling: We obtained disturbed bulk samples brought to the surface by the mechanical augers within the upper eight feet of borings B-1 and B-4.

Subsurface Profile: The subsurface conditions encountered at the boring location is shown on the attached boring log, and generalized subsurface profile depicted on Figure 3 (Appendix A). The boring logs and profile represent our interpretation of the subsurface conditions based on visual examination of recovered soil samples and laboratory tests. The lines designating the interfaces between various strata represent the approximate interface locations. Actual strata transitions will be gradual.

In general, the borings encountered existing Fill materials and Natural Soils below a 1 to 2-inches of topsoil. However, *we did not encounter weathered rock or bedrock within the boring termination depths*. Subsurface conditions are described below with increasing depth:

- **Stratum I: Existing Fill:** Possible existing FILL materials were encountered in borings B-1 and B-3 and occurred up to about 2 feet bgs in B-1 and up to about 6 inches bgs in B-3. The fill consisted of damp, brown, micaceous Sandy SILT (ML) with trace Gravel; and occasional damp, dark brown, tan, Sandy Quartz GRAVEL (GP) with trace Silt. The SPT N-value was 5 blows per foot (bpf), indicating medium stiff consistency.
- **Stratum II: Natural Soils - Sandy SILT (ML) and Silty SAND (SM):** We encountered residual natural soils below the existing topsoil or existing Fill. Residual natural soils consisted of damp, brown, gray, and reddish brown, natural micaceous Sandy SILT (ML) with varying amounts of Gravel to the boring termination depths. In boring B-3 below the Silt we encountered damp, brown, gray, micaceous Silty SAND (SM) with trace Gravel from 8 feet bgs to the boring termination depth at 10 feet. The SPT N-values ranged from 5 to 26 bpf, indicating medium stiff to very stiff consistency; or medium dense compactness. Tested soil samples ranged from non-plastic (NP) to slight plasticity (PI=4), and the moisture contents from about 10 to 28 percent.

Groundwater and Cave-in Conditions: As provided in Table 1 above, we monitored only short-term groundwater levels and cave-in depths during the period of fieldwork. We did not encounter groundwater or wet soils during drilling. Borehole caved-in occurred between 7 and 8 feet bgs after removing augers. Cave-in may be due typically to collapse of loose/soft soils after removing augers at completion of drilling. However, in granular soils, cave-in could be due to the presence of saturated soil conditions due to groundwater and or perched water (or trapped) conditions.

Fluctuations of the groundwater levels and/or perched water may occur due to in-situ soil types and characteristics, existing ground cover, site topography and drainage conditions, presence of water body,



variations in rainfall, evaporation, construction activity impacting ground conditions and surface runoff, and other site-specific factors not present at the time of drilling.

SOILS LABORATORY TESTING

Index Test Results: We performed grain size analyses, Atterberg limits (liquid and plastic limits), and natural moisture contents on selected soil samples in accordance with ASTM standards. Detail lab test results are provided in Appendix C. Table 2 below is a summary of the lab index test results.

Table 2: Summary of Soil Gradation and Index Test Results							
Boring / Sample No.	Depth (ft)	Description	LL (%)	PI (%)	NMC (%)	Fines (%)	USCS
B-1 / Bulk	0 - 8	Micaceous Sandy SILT	NP	NP	11	57	ML
B-1 / S-5	6 - 8	Micaceous Sandy Silt	-	-	16	-	ml
B-2 / S-3	4 - 6	Micaceous Sandy Silt	-	-	15	-	ml
B-2 / S-5	8 - 10	Micaceous Sandy Silt	-	-	13	-	ml
B-3 / S-3	4 - 6	Micaceous Sandy Silt	-	-	15	-	ml
B-3 / S-4	6 - 8	Micaceous Sandy Silt	-	-	14	-	ml
B-3 / S-5	8 - 10	Micaceous Silty SAND	NP	NP	12	36	SM
B-4 / Bulk	0 - 8	Micaceous Sandy SILT	34	4	15	58	ML
B-4 / S-4	6 - 8	Micaceous Sandy Silt	-	-	28	-	ml
B-4 / S-5	8 - 10	Micaceous Sandy Silt	-	-	16	-	ml

NOTES: PI: Plasticity Index; LL: Liquid Limit; NMC: Natural Moisture Content; NP: Non-plastic; NV: Non viscous; Fines: silt/clay content percent by weight passing US No. 200 sieve; USCS: Unified Soil Classification System - Laboratory classification results in UPPER CASE. All LOWER CASE classifications are visual.

In general, the laboratory test results indicate that the site soils are non-plastic with high fines content (typically greater than 35 percent by weight passing the US No. 200 sieve size).

Moisture-Density Tests: Table 3 below provides a summary of the standard moisture-density (ASTM D 698) testing results for two selected bulk samples.

Table 3: Summary of Standard Proctor Moisture-Density Relationship						
Boring No.	Sample Depth (ft)	Sample Description	Proctor Test		NMC (%)	USCS
			MDD (pcf)	OMC (%)		
B-1	0 - 8	Micaceous Sandy SILT	108.9	17.4	10.9	ML
B-4	0 - 8	Micaceous Sandy SILT	107.0	18.4	15.3	ML

NOTES: MDD: Maximum Dry Density; NMC: Natural Moisture Content; OMC: Optimum Moisture Content



GEOTECHNICAL EVALUATIONS AND RECOMMENDATIONS

Geotechnical evaluations are based on site reconnaissance, results of the subsurface exploration and soil conditions encountered at the site on 01/8/2021, and our experiences with similar subsurface conditions.

Geotechnical Issues

We have identified the following geotechnical issues along the proposed sanitary sewer alignment on the basis of the described project characteristics and subsurface conditions encountered during our subsurface explorations. The geotechnical issues are discussed with recommendations below:

- Existing FILL Materials
- Micaceous Site Soils
- Presence of Existing Buried Utilities

Existing Fill Materials: We encountered existing Fill materials along the proposed water and sewer alignments of up to about 2 feet bgs. The fill materials consisted of micaceous Sandy SILT (ML) with trace Gravel; and occasional Sandy GRAVEL (GP). We do not have fill placement records, however, we anticipate that the fill materials were likely derived from excavated on-site materials which were re-used as backfill for the original site developments. Typically, fills may likely contain localized undesirable materials such as organics, pockets of voids, and unstable zones characteristic of inadequate compaction. Other issues associated with uncontrolled fill include unpredictable and potentially excessive settlements and sudden collapse, potential for corrosion of metallic and steel structures, and unknown contamination.

We anticipate that as a matter of course, existing fill materials will be removed during pipeline construction to achieve proposed pipe inverts. However, if encountered at proposed pipe inverts, we recommend that the Engineer evaluate the exposed fill materials. Unsuitable fill conditions characterized by loose/soft and disturbed (pumping and shifting under load) and/or presence of deleterious materials, should be partially excavated to a suitable subgrade and replaced with compacted engineered fill. On-site fill materials desired to be re-used as compacted backfill should be evaluated and tested to meet the project requirements discussed in the construction recommendations section of this report.

Micaceous Site Soils: Consistent with published geology, we encountered micaceous soils (both existing fill and natural soils), at the project site. Micaceous soils are residual and derived from weathering of the underlying parent bedrock. Such soils are highly erodible, sensitive to moisture (high swell potential, susceptible to freeze-thaw and frost action), prone to disturbance and instability with significant loss of shear strength when exposed to prolonged moisture, adverse weather conditions, and construction activities.

In addition, due to the relic structure and platy nature of mica combined with relatively high fines content, such soils are difficult to place and compact (to achieve the requisite in-place relative density to ensure long term stable conditions) if reused as backfill. Thus, reuse of micaceous soils as backfill will require extensive construction quality control and quality assurance. We recommend that the Contractor implement appropriate equipment, means/methods and provide adequate drainage measures during excavation and stockpiling of on-site soils to minimize disturbance and strength loss.

Presence of Existing Buried Utilities: We anticipate that existing utilities at the site include buried water and sewer pipelines, electric and gas lines. We recommend that all active utility lines on site be located and clearly identified prior to construction. The Contractor should provide approved means/methods and measures to remove, bypass or penetrate any inactive utilities and foundations and substructures if



encountered during excavations work. In addition, all abandoned utilities left in place should be sealed using flowable backfill or cement grout.

Utility Pipe Foundation Bearing Strata and Subgrade Preparations

Bearing Strata: As indicated by the test borings, the project site is generally underlain by inorganic natural soils consisting of micaceous Sandy SILT (ML) and Silty SAND (SM). Based on the proposed pipeline profile inverts, between approximate El. 499.0 and El. 513.2 for the *water line*, and between approximate El. 488.5 and El. 510.88 for the *sewer line*, and proposed embedment of 4 feet below existing site grades, we anticipate that both the water and sewer pipelines will be located within firm, natural micaceous Sandy Silt or Silty Sand stratum. In addition, our review of the project plans indicate that the proposed WSSC 6" *Water Meter Vault* will have its base at between El. 509 and El. 510. Per borings B-1 and B-2, the vault will be founded on firm micaceous Sandy SILT (ML) stratum.

For the conventional cut-and-cover pipe installations, we recommend that the pipelines with suitable bedding materials and depths should be placed on firm or densified inorganic subgrade soils, and/or on compacted No. 57 stone aggregate backfills.

Pipe Bedding and Subgrade Preparations: The water and sewer pipe beddings and subgrade preparations should conform to the pipe *manufacturer's design and construction recommendations*, and in accordance with the requirements of City of Rockville DPW County Standard Details, Montgomery County Standard Specifications, and WSSC Standard Details and General Conditions and Standard Specification.

The backfill materials must be placed with proper compaction and water control as described in the construction recommendations section of this report. We recommend the following guidelines be followed for subgrade preparation:

- Locate the pipes in firm or stable soils. If loose/soft subgrade and/or disturbed pockets of soil are encountered at the invert subgrade levels, they should be improved/densified in-place and/or undercut and replaced with compacted backfill and/or No. 57 stone aggregates. This will provide a *uniformly* firm subgrade and minimize *differential settlement issues* along the pipe alignment (especially at the pipe bents or concrete cradles). The depths of undercutting should extend a minimum of 12 inches below the pipe invert or substructure inverts. If needed, install geotextile separator (MDOT SHA Class SE) to prevent migration of finer particles prior to placing backfill.
- Due to the presence of micaceous site soils with relatively high fine contents, prolong exposure to moisture and adverse weather conditions can weaken the site soils at the bedding levels if the excavations remain open for a long time period. Therefore, the pipes should be laid and backfilled after the trenches are excavated as soon as practical. If the trench cannot be backfilled the same day as the excavation, then the excavation should be protected. If exposed soils are frozen or softened by water intrusion, it must be evaluated by a Geotechnical Engineer. If the soils are deemed disturbed or overly saturated, they should be removed from the excavation bottom and replaced with compacted No. 57 stone aggregates prior to placement of the pipes.
- ***Rock Subgrade:*** We did not encounter nor cored bedrock within the boring exploration depths. However, note that abrupt changes from soil subgrade to bedrock or hard foundation must be avoided. Where rock is encountered at foundation bearing levels, it must be removed (minimum 12 inches and up to 24 inches maximum; or in accordance with manufacturer's recommendations) to provide more than the minimum bedding thickness underneath the bottom



of the pipes. Excavate wide enough to avoid any possibility of the pipe resting directly on rock and provide access to adequately haunch the pipe. The excavated area should be backfilled with compacted granular fill to cushion the pipe.

- *Groundwater:* We did not encounter short-term groundwater or wet soil conditions during drilling in January 2021. In general, we do not expect groundwater will be encountered during construction excavations within about 10 feet. However, we encountered borehole cave-in at depths of 7 to 8 feet below ground surface. As previously discussed, cave-in could be due to collapse of loose/soft soils without support, and/or due to the presence of saturated soil conditions due to trapped or perched water. Thus, fluctuations in groundwater levels and can occur due to seasonal variations, impacts of rainfall and surface runoff, and construction activity. Moreover, due to the presence of micaceous site soils, where surface water runoff, perched water and/or groundwater are encountered during construction, we recommend temporary water control measures should be implemented to minimize disturbance of subgrade soils. If perched water and/or groundwater are encountered during construction, we recommend dewatering and overexcavation of any loose/disturbed soils and replacement with No. 57 stone aggregate layer.

CONSTRUCTION RECOMMENDATIONS

Site utility water and sanitary sewer construction should be performed in accordance with the requirements of Montgomery County, City of Rockville DPW, and WSSC General Conditions and Standard Specifications.

General Site Preparation: The Contractor should locate and take precautions to protect existing underground utilities within the vicinity of the proposed construction prior to excavations and demolitions. The minimum clearance from existing utility lines should be 12 inches. Debris, organic materials and disturbed soils encountered during excavations should be removed from the construction area. During excavations, site drainage should be maintained to prevent the accumulation of water. If the exposed subgrade becomes excessively wet or frozen, or if conditions are encountered different from those described previously in this report, the geotechnical engineer should be contacted

We recommend that, prior to placing new fill, the exposed subgrade be proof compacted with appropriate construction equipment. The intent is to collapse near surface voids, densify loose/soft surface soils and/or detect unsuitable soil conditions. Proof compaction or densification should be performed with a hand operated compactor or other appropriate equipment and should be done after a suitable period of dry weather to avoid degrading an otherwise acceptable subgrade. Unsuitable or disturbed soils encountered during the site preparation, as determined by the geotechnical engineer or his representative should be either improved in place or undercut and replaced with compacted fill.

Fill Materials and Placement Requirements: The selection of fill materials used as approved selected and structural backfill, and the methods of placement and compaction and field density testing should be in accordance with the project specifications, City of Rockville DPW or Montgomery County standards.

Satisfactory backfill materials, proper placement and compaction are key factors in obtaining satisfactory performance for pipe installation in excavated trenches. In general, bedding materials beneath and around the water and sewer pipelines should be granular materials with little or no plasticity, and should be free from rocks, frozen lumps, and foreign matter that could cause hard spots or that could decompose and create voids. The materials should conform to suitable specifications recommended by the pipe manufacturer, City of Rockville DPW, Montgomery County or WSSC.



For pipe installations requiring trench-like conditions where compaction is obtained by hand, or walk-behind equipment, or by saturation and vibration, backfill materials should be clean, non-plastic materials that require little or no compactive effort (Unified Soils Classification GP or SP), or well graded granular material classified as GW, SW, GM, SP, SM, or GC with liquid limit of less than 30 percent and plastic index less than 6. Particles larger than three inches in diameter should not be included within two feet of final roadway subgrade. If groundwater is encountered above or at proposed invert levels, we recommend using No. 57 Stone Aggregate or any other suitable material approved by the geotechnical engineer.

Re-Use of On-Site Soils: Excavated on-site soils from trenches may be suitable for potential reuse as compacted fill above the pipelines if approved by the geotechnical engineer. According to boring records and laboratory test results, the majority of on-site soils are micaceous Sandy Silt, and could be challenging for reuse as compacted backfill due to the prevalence of mica and high fines content. Unsuitable excavated soils should be replaced with select borrow material meeting the project requirements. The reuse of on-site soils for backfill will require extensive quality control during construction including additional lab testing, field moisture conditioning during excavation and stockpiling with protection against rainfall events and prolong exposure to moisture.

Compaction Requirements: To facilitate soil compaction immediately above utility pipes, it will be necessary to cover them with a minimum of 6 inches of crushed stone or 12 to 24 inches of select backfill material. Where trench boxes are used, the excavation should be backfilled with coarse granular materials to the elevation where typical earthwork equipment can be used to properly place and compact soil backfill. Select backfill below and around the pipe should be placed in 8-inch lift loose thickness. We recommend that compacted fill above the select backfill or crushed stone be constructed by spreading acceptable soil in loose layers not more than 8 inches thick.

For trenches outside the right-of-way of County roads, compact backfill to minimum 90 percent following ASTM D1557 or 92 percent of ASTM D698. Within State road rights-of-ways, following ASTM D1557 compact soils to 97 percent within the top 1 foot of the final roadway subgrade, and 92 percent from one foot below final roadway subgrade to the top of the pipe bedding. Within County road right-of-ways and other paved areas, following ASTM D698 compact soils to 100 percent within the top 1 foot of the final roadway subgrade, and 95 percent from 1 foot below final roadway subgrade to the top of the pipe bedding. The moisture content of the fill should be maintained within 2 percentage points of the optimum moisture content determined from the laboratory moisture density relation.

Temporary Excavations: Based on the proposed pipe inverts, variable depths of excavations ranging from four to 10 feet will be required for the proposed water and sewer lines construction. Excavations can be accomplished by laying slopes back to a stable configuration (if they will not interfere with existing pipelines). Excavations should be performed in accordance with Montgomery County and OSHA Standards for the Construction Industry (29 CFR Part 1926 Subpart P). The overburden soils encountered appear similar to those classified as Type C as defined in OSHA Standards for the Construction Industry (29 CFR Part 1926 Subpart P). OSHA recommends a maximum slope of 1.5(H):1(V) for temporary excavations, although flatter slopes or sidewall shoring may be required if perched surface water or ground water or granular materials with residual or micaceous soils and/or running sand are present.

Alternatively, where cut back slopes are not feasible due to site constraints, and/or excavations are in excess of 5 feet deep, temporary excavation support systems such as timber shoring, trench boxes or braced thickened steel plates can be used. These will provide temporary earth retention and maintain near vertical side slopes, and also provide some protection against potential bottom heave of excavations due



to groundwater. We recommend using trench boxes where the proposed utility lines will be located adjacent to and/or below existing roadways and existing utility lines. The contractor should provide measures to protect existing roadway and utilities where present. Temporary support of excavations should be designed by a Professional Engineer registered in the State of Maryland.

Construction Water Controls: Groundwater was not encountered during drilling. However, due to the presence of micaceous site soils with high fines, the Contractor should provide positive drainage and dewatering measures to control surficial water and groundwater (if encountered) during construction. This will ensure that the foundation excavations and utility trenches are kept free of standing water and in relatively dry conditions. Dewatering can be handled with conventional ditching, sumps and/or pumping to an approved dewatering devices. Run-off from adjacent areas should be diverted from excavations to prevent water ponding.

ADDITIONAL SERVICES

The recommendations presented in this report are contingent on KCI Geotechnical Engineers observing and/or evaluating earthwork construction activities as part of Quality Assurance/Quality Control including:

- Excavations and subgrade evaluations, including compaction and densification where applicable;
- Evaluating suitability off-site borrow fill materials;
- Fill placement, compaction and testing as; and
- General compliance with the geotechnical engineering recommendations.

LIMITATIONS

This report is subject to the limitations following the text.

ATTACHMENTS

APPENDIX A – FIGURES

- Figure 1: Site Vicinity Map*
- Figure 2: Boring Location Plan*
- Figure 3: Subsurface Profile*

APPENDIX B – TEST BORING LOGS

- Test Boring Logs*
- USCS Soil Classification Chart*
- Field Exploratory Procedures*

APPENDIX C – LABORATORY TESTING RESULTS

- Laboratory Test Results*
- Laboratory Testing Procedures*



GEOTECHNICAL LIMITATIONS

General

1. This report has been prepared to aid in the evaluation of the proposed construction described in this report. Adequate recommendations have been provided to serve as a basis for design and preparation of plans and specifications. The opinions, conclusions, and recommendations contained in this report are based upon our professional judgment and generally accepted principles of geotechnical engineering. Inherent to these are the assumptions that the earthwork construction should be monitored and tested under the guidance of a geotechnical engineer licensed in the State of Maryland or his representative.

Explorations

2. The evaluations provided are, of necessity, based on project information available at the time of the actual writing of the report, including existing site, surface and subsurface conditions that existed at the time the exploratory borings were drilled. Further assumption has been made that the limited exploratory borings, in relation to both the lateral extent of the site and to depth, are representative of general conditions across the site.

The nature and extent of variations between these explorations may not become evident until further explorations and construction. If variations from anticipated conditions then appear evident, it will be necessary to revise the evaluations in this report.

3. The generalized soil profile described in the text are intended to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and have been developed by interpretations of widely spaced explorations and samples; actual soil transitions are probably more erratic. Refer to boring logs for specific information.
4. Groundwater level readings have been made in boreholes at times and under conditions stated on the boring logs. These data have been reviewed and interpretations have been made in this report. Fluctuations in the level of the ground water may occur due to variations in rainfall, temperature, and other factors occurring since the time measurements were made.

Review

5. This report has been prepared based on plans and description of the proposed construction cited herein, and information provided by the Client. In the event that any changes in the nature, design or location of the proposed construction are planned, the conclusions and evaluations contained in this report shall not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing by KCI.

Uses of Report

6. This report has been prepared for the exclusive use of the City of Rockville Recreation and Parks Department and members of the design team for specific application to the *King Farm Farmstead Water and Sewer Improvements Project* at 1101 Grand Champion Dr., City of Rockville, Montgomery County, Maryland. Our professional services have been performed in



accordance with generally accepted soil and foundation engineering principles and practices; no other warranty, expressed or implied, is made. KCI assumes no responsibility for interpretations made by others on the work performed by KCI.

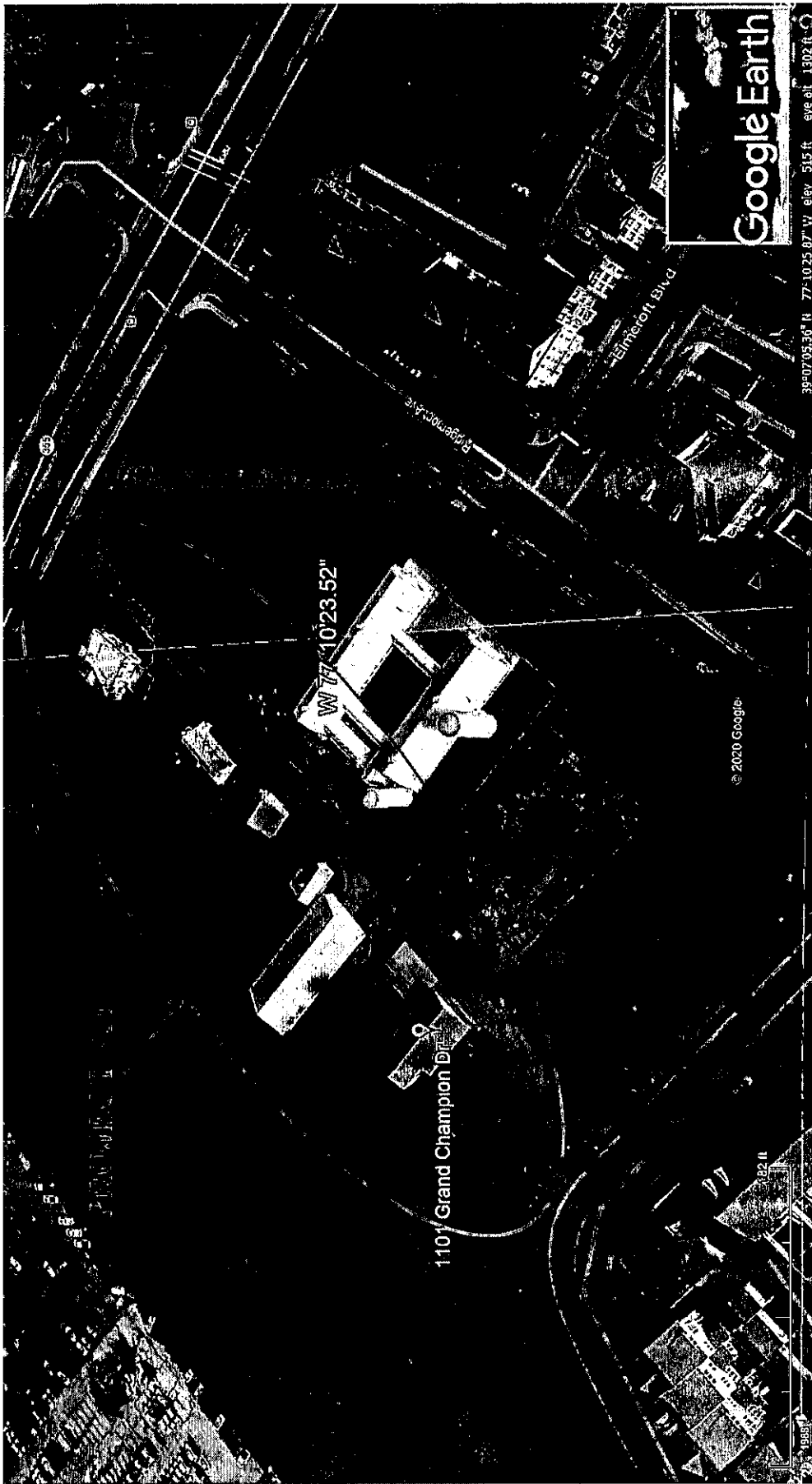
7. This report is for data purposes only and is not sufficient to prepare an accurate bid. Contractors wishing a copy of the report may secure it with the understanding that its scope is limited to design considerations only. We recommend that this report be made available in its entirety including attachments and appendices to contractors for informational purposes only. The project plans or specifications should include the following note:

A geotechnical report has been prepared for this project by KCI Technologies, Inc. This report is for informational purposes only and shall not be considered as part of the contract documents. The opinions and conclusions of KCI represent our interpretation of the subsurface conditions and the planned construction at the time of the report preparation. The data in this report may not be adequate for contractors estimating purposes.

FIGURES



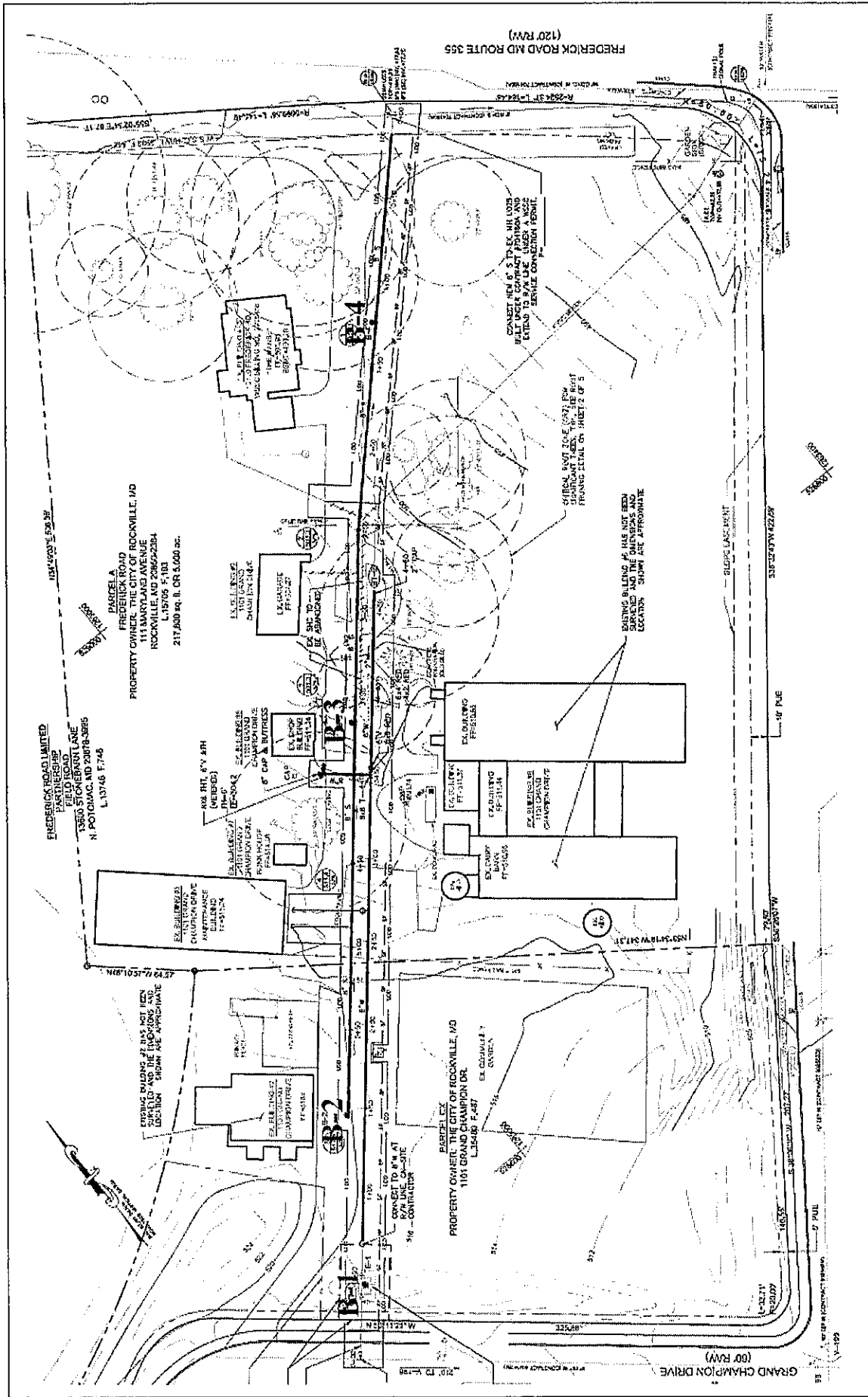
Appendix A




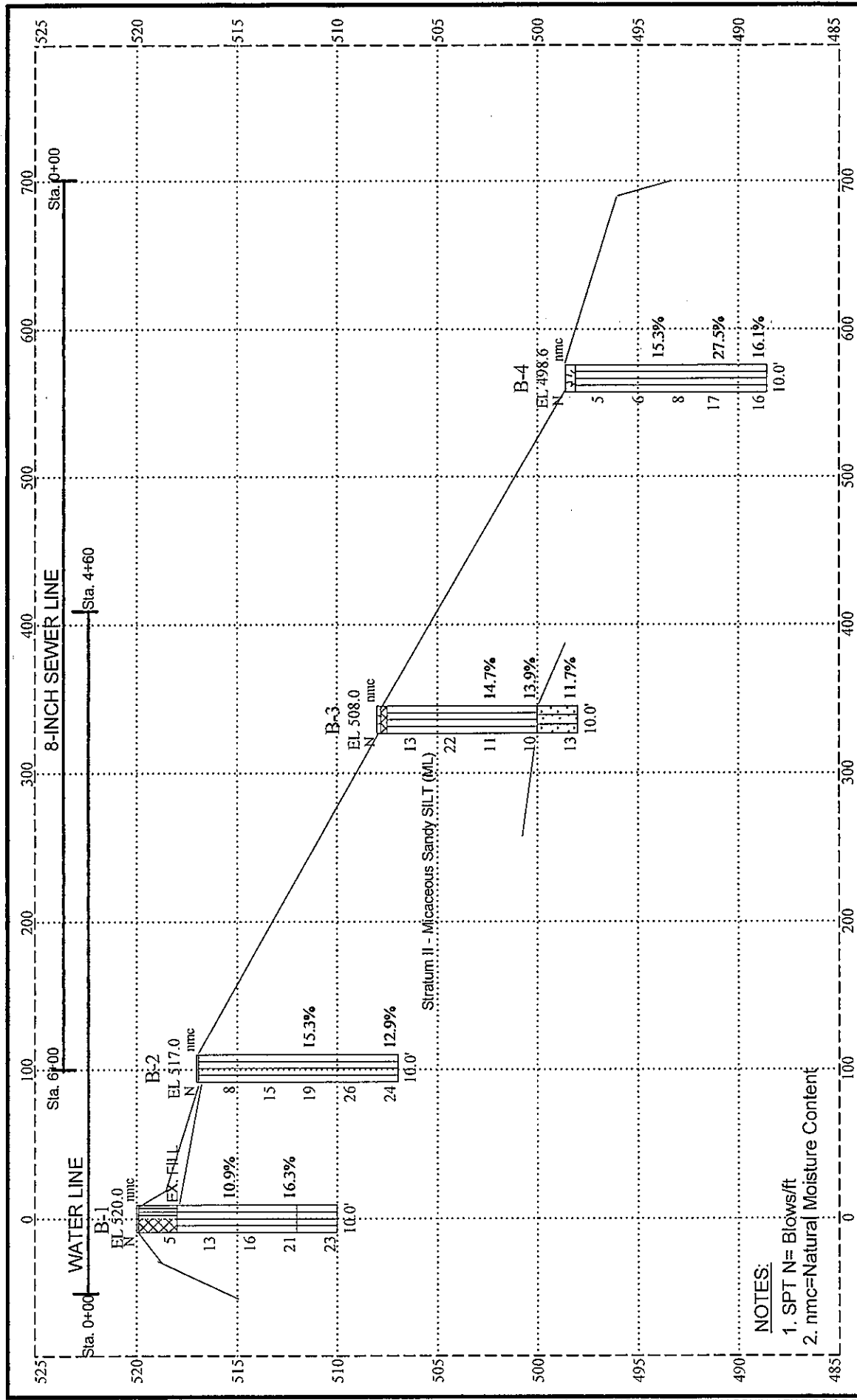
ENGINEERS
 PLANNERS
 SCIENTISTS
 CONSTRUCTION MANAGERS
 936 Ridgebrook Rd.
 Sparks, MD 21152
 410-316-7800 | Fax 410-316-7817

SITE VICINITY MAP
WATER & SEWER IMPROVEMENTS
KING FARM FARMSTEAD
CITY OF ROCKVILLE, MONTGOMERY COUNTY, MARYLAND
 DRAWN BY: DPC
 APPROVED BY: KBA
 SCALE: NTS
 DATE: JANUARY 2021

Figure No. **1**
 KCI PROJECT NO. 121906247.01



 <p>ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS</p> <p>936 Ridgebrook Rd. Sparks, MD 21152 410-316-7800 Fax 410-316-7817</p>	<p>BORING LOCATION PLAN</p> <p>WATER & SEWER IMPROVEMENTS</p> <p>KING FARM FAMRSTEAD</p> <p>CITY OF ROCKVILLE, MONTGOMERY COUNTY, MARYLAND</p>		<p>Figure No.</p> <p>2</p>
	<p>DRAWN BY</p> <p>DPC</p>	<p>APPROVED BY</p> <p>KBA</p>	<p>SCALE</p> <p>NTS</p>
			<p>KCI PROJECT NO.</p> <p>121906247.01</p>



NOTES:
 1. SPT N= Blows/ft
 2. nmc=Natural Moisture Content

<p>USCS SOIL KEY</p>	<p>SANDSTONE</p>	<p>FILL</p>	<p>OH</p>	<p>OL</p>
	<p>CH</p>	<p>CL</p>	<p>MH</p>	<p>ML</p>
<p>GC</p>	<p>GM</p>	<p>SM</p>	<p>SP</p>	<p>SW</p>
<p>GP</p>	<p>GW</p>	<p>SC</p>	<p>SC</p>	<p>SC</p>

Title: SUBSURFACE PROFILE
King Farm Farmstead
Water & Sewer Improvements

Figure No. 3

Drawn: DPC **Approved:** KBA **Date:** 1/28/21

KCI Job No. 121906247.01

BORING LOGS



Appendix B



PROJECT King Farm Farmstead
Water & Sewer Lines
PROJECT NO. 121906247.01

TEST BORING LOG
B-1

Surface Elevation 520 (ft)

SHEET 1 OF 1

Driller: Luis / CenKen
Method: HSA
Auger Depth: 8 ft
Date Begun: 1/8/2021
KCI Representative: DPC
Hammer Type: Auto 140
Auger Diameter: 2.25 in
Date Completed: 1/8/2021

Groundwater Levels (feet)

0 hour: NE
24 hours: _____

DEPTH (')	SOIL CLASSIFICATION AND REMARKS SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	LITHOLOGY	ELEV (')	SAMPLES				PLASTIC	M.C.	LIQUID	
				IDNET	TYPE	N-COUNT				FINES (%)	SPT (bpf)
						1st 6"	2nd 6"	3rd 6"	4th 6"		
	1" TOPSOIL										
	Possible Fill Sampled As: Damp, medium stiff, brown, micaceous Sandy SILT, trace Gravel (ML)			S-1		2-2-3-3 N = 5 REC=4"					
	Damp, stiff to very stiff, light reddish brown, gray, micaceous Sandy SILT (ML)			S-2		3-6-7-7 N = 13 REC=18"					
5			515	S-3		6-7-9-11 N = 16 REC=24"				5	
				S-4		12-10-11-13 N = 21 REC=20"					
	Damp, very stiff, brown, gray, micaceous Sandy SILT, little to some quartz Gravel (ML)			S-5		9-11-12-16 N = 23 REC=11"					
10			510							10	
	Boring terminated at 10 ft. bgs										
	Notes: 1) A bulk sample was collected between 0 - 8 ft bgs. 2) Groundwater was not encountered during or after the completion of drilling. 3) Borehole caved-in at 8 ft bgs at completion. 4) Borehole backfilled with auger cuttings and bentonite chips at completion.										
15			505							15	

KCI-KOA PLOG KINGS FARM FARMSTEAD.GPJ KCI.MOD SHA.DF.US.STD.PLOG.GDT 1/28/21



PROJECT King Farm Farmstead
Water & Sewer Lines
PROJECT NO. 121906247.01

TEST BORING LOG
B-2

Surface Elevation 517 (ft)

SHEET 1 OF 1

Driller: Luis / CenKen	Method: HSA	Auger Depth: 8 ft	Date Begun: 1/8/2021
KCI Representative: DPC	Hammer Type: Auto 140	Auger Diameter: 2.25 in	Date Completed: 1/8/2021

Groundwater Levels (feet)

0 hour: NE
24 hours: _____

DEPTH (')	SOIL CLASSIFICATION AND REMARKS SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	LITHOLOGY	ELEV (')	SAMPLES				PLASTIC	M.C.	LIQUID	
				IDNET	TYPE	N-COUNT				□ FINES (%)	● SPT (bpf)
						1st 6"	2nd 6"	3rd 6"	4th 6"		
	1" TOPSOIL Damp, medium stiff to very stiff, light reddish brown, gray, micaceous Sandy SILT (ML)										
			515	S-1		4-5-3-3 N = 8 REC=12"					
				S-2		6-8-7-9 N = 15 REC=11"					
5				S-3		9-9-10-11 N = 19 REC=14"				5	
			510	S-4		6-11-15-18 N = 26 REC=13"					
				S-5		9-11-13-17 N = 24 REC=19"					
10	Boring terminated at 10 ft. bgs									10	
	Notes: 1) Groundwater was not encountered during or after the completion of drilling. 2) Borehole caved-in at 8 ft bgs at completion. 3) Borehole was backfilled with auger cuttings and bentonite chips at completion		505								
15										15	

KCI-KOA PLOG KINGSFARM FARMSTEAD.GPJ KCIIMOD_SHA_DF_US STD_PLOG.GDT 1/28/21



PROJECT King Farm Farmstead
Water & Sewer Lines
PROJECT NO. 121906247.01

TEST BORING LOG
B-3

Surface Elevation 508 (ft)

SHEET 1 OF 1

Driller: Luis / CenKen	Method: HSA	Auger Depth: 8 ft	Date Begun: 1/8/2021
KCI Representative: DPC	Hammer Type: Auto 140	Auger Diameter: 2.25 in	Date Completed: 1/8/2021

Groundwater Levels (feet)
0 hour: NE
24 hours: _____

DEPTH (')	SOIL CLASSIFICATION AND REMARKS SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	LITHOLOGY	ELEV (')	SAMPLES				PLASTIC	M.C.	LIQUID		
				IDNET	TYPE	N-COUNT				-	-	-
						1st 6"	2nd 6"	3rd 6"	4th 6"			
	2" TOPSOIL											
	Possible FILL Sampled As: Damp, medium dense, dark brown, tan, Sandy quartz GRAVEL, trace Silt (GP)											
	Damp, very stiff to stiff, light orangeish brown, gray, micaceous Sandy SILT, trace Gravel (ML)											
			505	S-1		12-9-4-6 N = 13 REC=6"						
				S-2		8-13-9-11 N = 22 REC=14"						
5				S-3		5-5-6-7 N = 11 REC=16"				5		
				S-4		5-4-6-6 N = 10 REC=10"						
	Damp, medium dense, light orangeish brown, gray, micaceous Silty SAND, trace Gravel (SM)		500	S-5		6-5-8-9 N = 13 REC=18"						
10										10		
	Boring terminated at 10 ft. bgs											
	Notes: 1) Groundwater was not encountered during or after the completion of drilling. 2) Borehole caved-in at 7 ft bgs at completion. 3) Borehole was backfilled with auger cuttings and bentonite chips at completion.		495									
15										15		

KCH-KOA PLOG KINGS FARM FARMSTEAD.GPJ KCI.MOD. SHA. DF. US. STD. PLOG.GDT. 1/29/21



PROJECT King Farm Farmstead
Water & Sewer Lines
PROJECT NO. 121906247.01

TEST BORING LOG

B-4

Surface Elevation 498.6 (ft)

SHEET 1 OF 1

Driller: Luis / CenKen	Method: HSA	Auger Depth: 8 ft	Date Begun: 1/8/2021
KCI Representative: DPC	Hammer Type: Auto 140	Auger Diameter: 2.25 in	Date Completed: 1/8/2021

Groundwater Levels (feet)

0 hour: NE
24 hours: _____

DEPTH (')	SOIL CLASSIFICATION AND REMARKS SEE KEY SYMBOL SHEET FOR EXPLANATION OF SYMBOLS AND ABBREVIATIONS BELOW.	LITHOLOGY	ELEV (')	SAMPLES				PLASTIC	M.C.	LIQUID		
				IDNET	TYPE	N-COUNT				□ FINES (%)	▲	□
						1st 6"	2nd 6"	3rd 6"	4th 6"			
0	6" TOPSOIL											
0-8	Damp, medium stiff to very stiff, brown to orange brown, micaceous Sandy SILT, trace Gravel (ML)			S-1	X	2-2-3-4 N=5 REC=10"						
4-5			495	S-2	X	4-2-4-4 N=6 REC=13"						
5				S-3	X	2-3-5-7 N=8 REC=4"						
7-8				S-4	X	7-8-9-13 N=17 REC=6"						
8-10	- brown and gray with dark brown to black lenses		490	S-5	X	3-8-8-10 N=16 REC=14"						
10	Boring terminated at 10 ft. bgs											
10-15	Notes: 1) A bulk sample was collected between 0 - 8 ft bgs. 2) Groundwater was not encountered during or after the completion of drilling. 3) Borehole caved-in at 7 ft bgs at completion. 4) Borehole was backfilled with auger cuttings and bentonite chips at completion.		485									
15												

KCHKOA PLOG KING FARM FARMSTEAD.GPJ KCI.MOD SHA DF US STD. PLOG.SDT 1/28/21

FIELD CLASSIFICATION SYSTEM FOR SOIL EXPLORATION

NON-COHESIVE SOILS (Sand, Gravel, and Combinations)

Density

Very Loose	- 4 blows/ft. or less
Loose	- 5 to 10 blows/ft.
Medium Dense	- 11 to 30 blows/ft.
Dense	- 31 to 50 blows/ft.
Very Dense	- 51 blows/ft. or more

Relative Proportions

Descriptive Term	Percent
Trace	1 to 10
Little	11 to 20
Some	21 to 35
And	35 to 50

Particle Size Identification

Boulders	- 12 inch diameter or more
Cobbles	- 12 to 3 inch diameter
Gravel	-Coarse - 3 to 0.75 inch diameter
	Fine - 0.75 to 0.19 inch diameter
Sand	-Coarse - 4.75 to 2 mm diameter (dia. of pencil lead)
	Medium - 2 to 0.425 mm diameter (dia. of broom straw)
	Fine - 0.425 to 0.075 mm diameter (dia. of human hair)
Fines	-Silt & Clay - less than 0.075 mm diameter (Cannot see particles)

COHESIVE SOILS (Clay, Silt, and Combinations)

Consistency

Very Soft	- 2 blows/ft. or less
Soft	- 3 to 4 blows/ft.
Medium Stiff	- 5 to 8 blows/ft.
Stiff	- 9 to 15 blows/ft.
Very Stiff	- 16 to 30 blows/ft.
Hard	- 31 blows/ft. or more

Plasticity

Degree of Plasticity	Plasticity Index
None to Slight	0 - 4
Slight	5 - 7
Medium	8 - 22
High to Very High	over 22

Classification on Records of Soil Exploration are made by visual inspection of samples and laboratory testing.

Standard Penetration Test

- Driving a 2.0" - O.D., 1 3/8" - I.D. sampler a distance of 1.0 foot into undisturbed soil with a 140-pound hammer free falling a distance of 30.0 inches. It is required to drive the spoon 6.0 inches to seat into undisturbed soil, then perform the test. The number of hammer blows for seating and making the test are recorded each 6.0 inches of penetration on the Record of Soil Exploration (Example: 6-8-9). The standard penetration test result can be obtained by adding the last two figures. (i.e. 8+9=17 blows/ft.) (ASTM D-1586).

Strata Changes

- In the column "Soil Descriptions" on the Record of Soil Exploration the horizontal lines represent estimated strata changes.

Ground Water

- Observations were made at the times indicated. Porosity of soil strata, weather conditions, site topography, etc. may cause changes in the water levels indicated on the Record of Soil Exploration.



FIELD CLASSIFICATION SYSTEM FOR SOIL EXPLORATION

Figure No.

GENERAL

Drawn: DPC | Approved: KBA | Date: GENERAL

KCI Job No. GENERAL

USCS SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS	
			GRAPH	LETTER		
<p>COARSE GRAINED SOILS</p> <p>MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE</p>	<p>GRAVEL AND GRAVELLY SOILS</p> <p>MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE</p>	<p>CLEAN GRAVELS</p> <p>(LITTLE OR NO FINES)</p>		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES	
		<p>GRAVELS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES	
	<p>SAND AND SANDY SOILS</p> <p>MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE</p>	<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES	
		<p>CLEAN SANDS</p> <p>(LITTLE OR NO FINES)</p>		SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES	
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		SM	SILTY SANDS, SAND - SILT MIXTURES	
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		SC	CLAYEY SANDS, SAND - CLAY MIXTURES	
		<p>SANDS WITH FINES</p> <p>(APPRECIABLE AMOUNT OF FINES)</p>		SO	CLAYEY SANDS, SAND - CLAY MIXTURES	
	<p>FINE GRAINED SOILS</p> <p>MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE</p>	<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT LESS THAN 50</p>	<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT LESS THAN 50</p>		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT LESS THAN 50</p>		CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT LESS THAN 50</p>				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY	
<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT GREATER THAN 50</p>		<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT GREATER THAN 50</p>		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS	
		<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT GREATER THAN 50</p>		CH	INORGANIC CLAYS OF HIGH PLASTICITY	
		<p>SILTS AND CLAYS</p> <p>LIQUID LIMIT GREATER THAN 50</p>		OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS	
<p>HIGHLY ORGANIC SOILS</p>				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS	

USCS LEGEND 2/7/13

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

FIELD EXPLORATORY PROCEDURES

The general field procedures employed by KCI are summarized in ASTM specification D 420 entitled "Investigating and Sampling Soils and Rocks for Engineering Purposes." This recommended practice lists recognized methods for determining soil and rock distribution and ground water conditions. These methods include geophysical and in-situ borings.

Borings are advanced to obtain subsurface samples using one of several techniques depending upon the site and subsurface conditions. These techniques are:

1. Continuous hollow-stem augers;
2. Wash borings using roller cone or drag bits (mud or water);
3. Continuous flight augers (ASTM D 1452);
4. Continuous sampling using a Tripod-mounted drill rig.

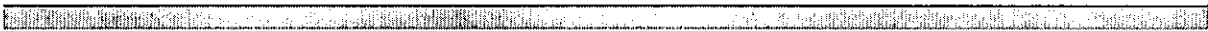
These drilling methods are not capable of penetrating through material designated as "refusal materials." Refusal may result from hard cemented soil, soft weathered rock, coarse gravel or boulders, thin rock seams, or the upper surface of sound continuous rock. Core drilling procedures are required to determine the character and continuity of refusal materials.

The Driller reports the subsurface conditions encountered during drilling on a field test boring record. The record contains information concerning the boring method, samples attempted and recovered, indications of the presence of various materials such as coarse gravel, cobbles, etc., and observation of ground water. It also contains the driller's interpretation of the soil conditions between samples. Therefore, these boring records contain both factual and interpretive information.

A geotechnical engineer reviews the soils and rock samples plus the field boring records. The engineer classifies the soils in general accordance with the procedures outlined in ASTM Specification D 2488 and prepares the final boring records, which are the basis for all evaluations and recommendations.

The final test boring records represent our interpretation of the contents of the field records based on the results of the engineering examination and tests of the field samples. These records depict subsurface conditions at the specific locations and at the particular time when drilled. Soil conditions at other locations may differ from conditions occurring at these boring locations. Also, the passage of time may result in a change in the subsurface soil and ground water conditions at these boring locations. The lines designating the interface between soil or refusal materials on the records and on profiles represent approximate boundaries. The actual transition between materials may be gradual. The final Test Boring Records are included in Appendix B.

LABORATORY TESTING RESULTS



Appendix C

Boring	Depth (ft)	Liquid Limit (%)	Plastic Limit (%)	Plasticity Index (%)	% < #4 Sieve	% < #200 Sieve	Classification	Water Content (%)	Dry Density (pcf)	Optimum Water Content (%)
B-01	0.0 - 8.0	NP	NP	NP	98	57	ML	10.9	108.9	17.4
B-01	6.0 - 8.0							16.3		
B-02	4.0 - 6.0							15.3		
B-02	8.0 - 10.0							12.9		
B-03	4.0 - 6.0							14.7		
B-03	6.0 - 8.0							13.9		
B-03	8.0 - 10.0	NP	NP	NP	94	36	SM	11.7		
B-04	0.0 - 8.0	34	30	4	98	58	ML	15.3	107.0	18.4
B-04	6.0 - 8.0							27.5		
B-04	8.0 - 10.0							16.1		

Summary of Laboratory Results

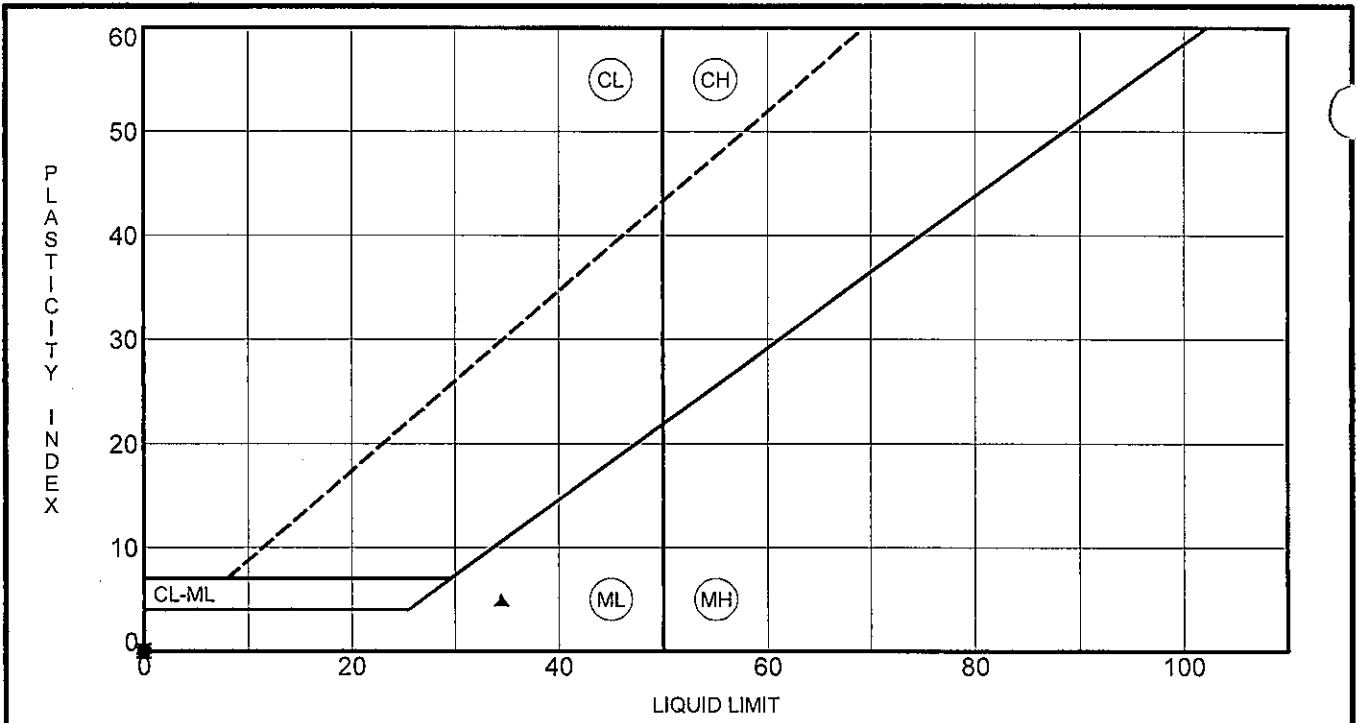
Rockville, MD

Project Number: 20-081



Odenton, MD 21113

Kings Farm Farmstead



Boring	Depth	LL	PL	PI	Fines	Classification
● B-01	0.0 - 8.0	NP	NP	NP	57	Brown, micaceous sandy SILT [ML]
⊠ B-03	8.0 - 10.0	NP	NP	NP	36	Brown, silty micaceous SAND [SM]
▲ B-04	0.0 - 8.0	34	30	4	58	Brown, micaceous sandy SILT [ML]

Test Method: ASTM D4318 Tested By: EM Date: 1/21/2021

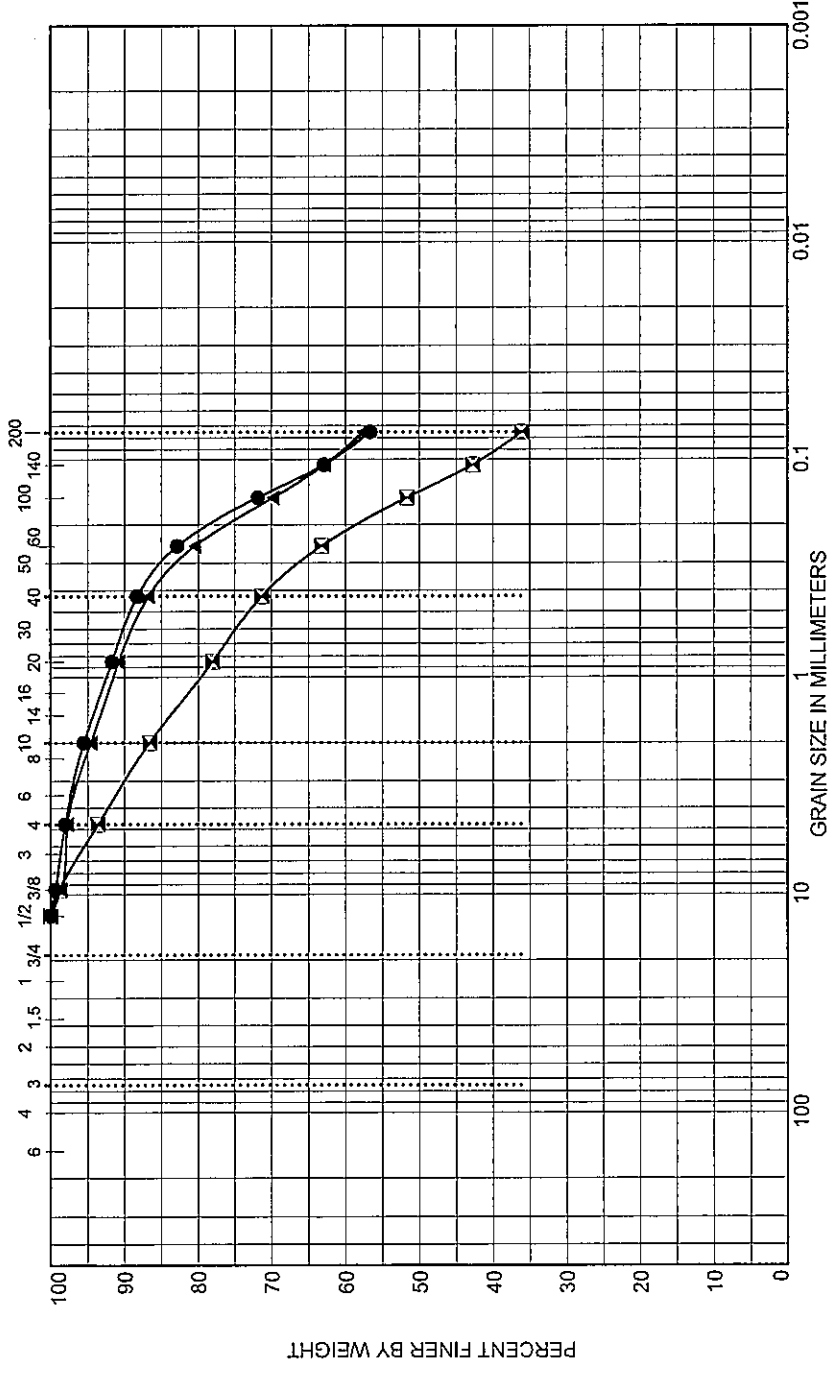
CKG CENKEN GROUP, LLC
 Geotechnical Engineering Consultants
 Odenton, MD 21113

ATTERBERG LIMITS' RESULTS
 Project: Kings Farm Farmstead
 Location: Rockville, MD
 Project Number: 20-081

HYDROMETER

U.S. SIEVE NUMBERS

U.S. SIEVE OPENING IN INCHES



	D10	D30	D60	D100
●			0.09	12.5
⊠			0.217	12.5
▲			0.088	12.5

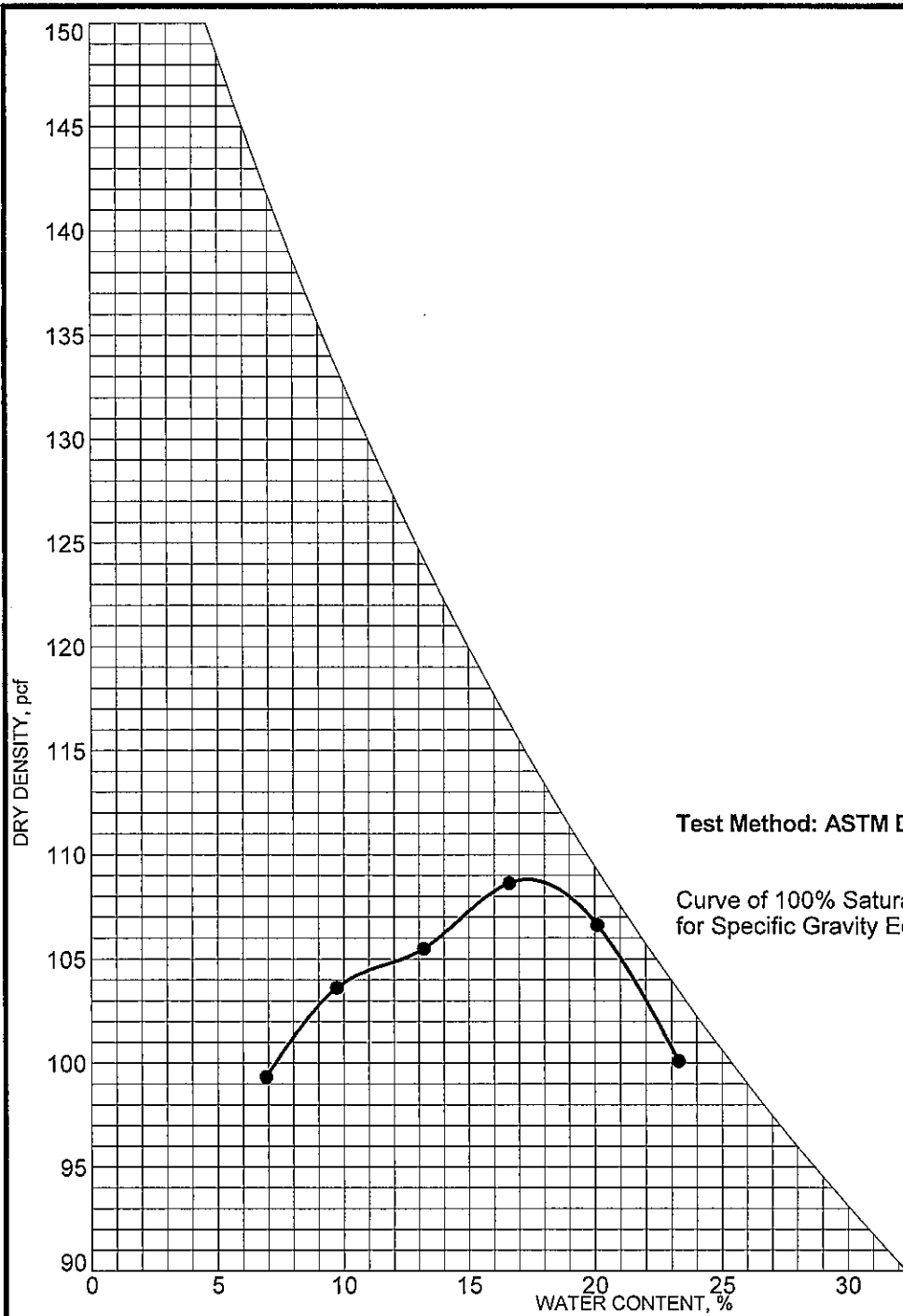
Test Method: ASTM D422

Tested By: EM Date: 1/22/2021

COBBLES	GRAVEL		SAND			SILT OR CLAY
	coarse	fine	coarse	medium	fine	

Boring	S No.	Depth	%Gravel	%Sand	%Silt	%Clay	LL	PI	MC(%)	Classification
●	B-01	0.0 - 8.0	1.9	41.4	56.7		NP	NP	10.9	Brown, micaceous sandy SILT [ML]
⊠	B-03	8.0 - 10.0	6.4	57.5	36.1		NP	NP	11.7	Brown, silty micaceous SAND [SM]
▲	B-04	0.0 - 8.0	2.3	40.1	57.6		34	4	15.3	Brown, micaceous sandy SILT [ML]

CKG CENKEN GROUP, LLC
 Geotechnical Engineering Consultants
 Odenton, MD 21113 Kings Farm Farmstead
 Rockville, MD
 Project Number: 20-081



Boring	Sample No.	Depth, Ft	Classification	Max. Dry Density (pcf)	Opt. MC %	LL	PI	
●	B-01	Bag	0.0 - 8.0	Brown, micaceous sandy SILT [ML]	108.9	17.4	NP	NP

Tested By: EM Date: 1/21/2021

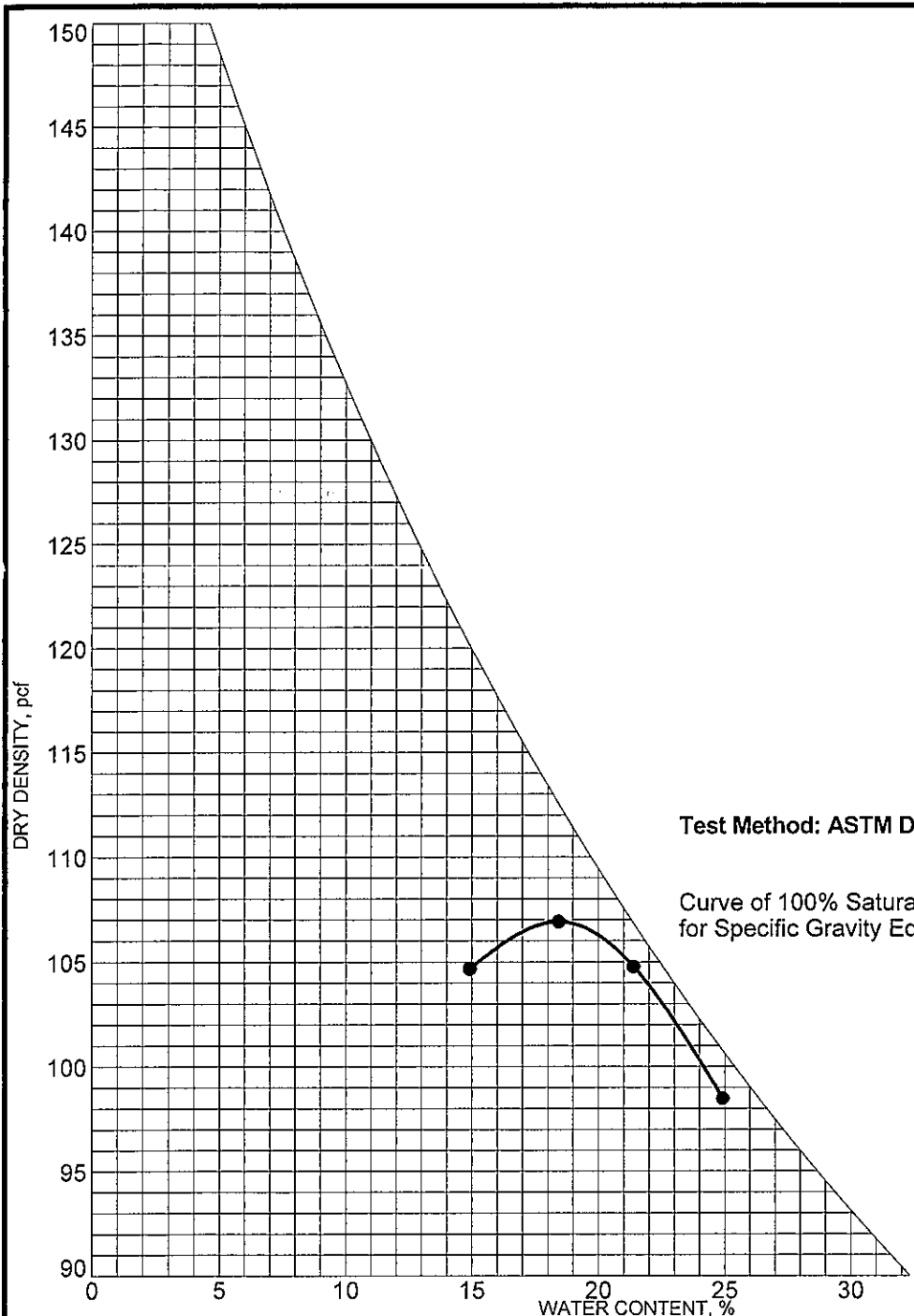


Odenton, MD 21113

MOISTURE-DENSITY RELATIONSHIP

Project: Kings Farm Farmstead
 Location: Rockville, MD Project
 Number: 20-081

CENKEN, COMPACTOR, MULTIPLE LABELS, CKG-2012-50T, 1/22/21



Boring	Sample No.	Depth, Ft	Classification	Max. Dry Density (pcf)	Opt. MC %	LL	PI	
●	B-04	Bag	0.0 - 8.0	Brown, micaceous sandy SILT [ML]	107.0	18.4	34	4

Tested By: EM Date: 1/21/2021



Odenton, MD 21113

MOISTURE-DENSITY RELATIONSHIP

Project: Kings Farm Farmstead
 Location: Rockville, MD Project
 Number: 20-081

CENKEN COMPACTOR, MULTIPLE LAB/GPJ CKG 2012.GDT 1/21/21

Laboratory Testing Procedures

Natural Moisture Content

The natural moisture content of selected samples was determined in accordance with ASTM D 2216. The moisture content of the soil is the ratio, expressed as a percentage, of the weight of water in a given mass of soil to the weight of the soil particles. The results are summarized in the table following this section of the report.

Grain Size Distribution

Grain size tests were performed on representative soil samples. Test samples were washed over a U. S. standard No. 200 sieve to remove the fines (particles finer than a No. 200 mesh sieve). The samples were then dried and sieved through a standard set of nested sieves. This test was performed in a manner similar to that described by ASTM D 1140. The results are presented as percent finer by weight versus particle size curves on the attached Grain Size Distribution sheets.

Soil Plasticity

Representative samples of the site soils were selected for Atterberg Limits testing to determine their soil plasticity characteristics. The soil's Plasticity Index (PI) is representative of this characteristic and is bracketed by the Liquid Limit (LL) and the Plastic Limit (PL). These characteristics are determined in accordance with ASTM D 4318. The LL is the moisture content at which the soil will flow as a heavy viscous fluid. The PL is the moisture content at which the soil begins to lose its plasticity. The data obtained are presented on the attached Grain Size Distribution sheets and summarized in the table following this section of the report.

Certain soils swell and shrink with increases and decreases in soil moisture. The PI is related to this potential volume change ability. When such volume changes occur in soils confined beneath foundations, floor slabs and pavements, structural deformations can be produced. Past experience has shown that soils having a PI of less than 30 are only slightly susceptible to volume changes. Soils having a PI greater than 50 are generally very susceptible to this volume changes. Soils with a PI between these limits have moderate volume change potential. The soils tested at this site are moderately susceptible to volume change.

Percent Fines

The percentage of fine-grained particles present in selected samples was determined by passing the samples through a No. 200 mesh sieve. The percent by weight passing the sieve is the percentage of fines or portion of the sample in the silt and clay size range. This test was conducted in accordance with ASTM D 1140. The results are shown on the attached Grain Size Distribution sheets.

APPENDIX L

MONTGOMERY COUNTY NOISE ORDINANCE

MONTGOMERY COUNTY NOISE ORDINANCE

Notice to Contractors

The Montgomery County Council recently enacted a comprehensive revision to the County Noise Control Ordinance (Chapter 31B, Montgomery County Code), including changes to the provisions concerning noise from construction activities.

GENERAL ORDINANCE STANDARDS

(Non-construction related)

Maximum allowable sound levels, measured at the nearest receiving property line, are 65 dBA

(A-weighted decibels) during daytime hours and 55 dBA during nighttime hours, for residential receiving properties (67 dBA daytime and 62 dBA nighttime for non-residential receiving property). Mixed Use Zones are considered residential.

- "Daytime" means from 7 a.m. to 9 p.m. weekdays and 9 a.m. to 9 p.m. weekends and holidays.
 - "Nighttime" means from 9 p.m. to 7 a.m. weekdays and 9 p.m. to 9 a.m. weekends and holidays.
 - "Receiving Property" means any property where people live or work and where noise is heard.
-

CONSTRUCTION EXEMPTION AND STANDARDS

"Construction" means temporary activities directly associated with site preparation, assembly, erection, repair, alteration, or demolition of structures or roadways. Construction Noise levels must be measured on a receiving property, but no closer than 50' from the noise source.

From 7 a.m. to 5 p.m. Weekdays, Construction Noise Levels must not exceed:

75 dBA without a "Noise Suppression Plan".

85 dBA with a "Noise Suppression Plan".

"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.

At all times other than 7 a.m. to 5 p.m. weekdays, the general standards specified above must be met.

For example: Assuming a residential or mixed-use receiving property, construction noise levels from 5 p.m. to 9 p.m. weekdays and from 9 a.m. to 9 p.m. weekends and holidays must not exceed 65 dBA. From 9 p.m. to 7 a.m. weekdays and 9 a.m. on weekends and holidays, the standard is 55 dBA (this is unchanged from the previous ordinance).

Construction activities are also subject to the "Noise Disturbance" provisions of the Ordinance. Examples of Noise Disturbances are delivering materials or equipment, or loading or unloading in a residential area, or operating construction equipment with audible back-up warning devices during Nighttime Hours.

Summary - Construction Noise

Measured at nearest receiving property, but no closer than 50' from the noise source.

Weekdays (Monday - Friday), 7 a.m. to 5 p.m.

Without Suppression Plan: **75 dBA**

With Suppression Plan: **85 dBA**

5 p.m. to 9 p.m.: **65 dBA**

9 p.m. to 7 a.m.: **55 dBA**

Saturday, Sunday, Holidays

9 a.m. to 9 p.m.: **65 dBA**

9 p.m. to 9 a.m.: **55 dBA**

In the majority of circumstances in the County, the Receiving Property will be considered residential. In cases where the nearest receiving properties are non-residential, the standards will be 67 dBA/Daytime and 62 dBA/Nighttime, except from 7 a.m. to 5 p.m. weekdays, when the higher construction exemption prevails.

While a **Noise Disturbance**, as defined by the Ordinance, could conceivably occur at any time, it is most likely to happen during the **Nighttime Hours**. The most common complaint involves back-up beepers, and can be avoided by employing lawful alternatives to audible devices.

The Department of Environmental Protection is currently developing Regulations for Noise Suppression Plans, as required by the revised Ordinance. In general, such plans will involve equipment selection and maintenance, scheduling and reasonable care in planning and conducting operations. Often, noise suppression measures can be fabricated on-site using materials at hand.

As a point of reference, two persons, speaking in normal tones of voice at a distance of three feet, will generate about 63 dBA between them. Therefore, normal, fully intelligible conversation would be possible at the receiving property line of a site generating 65 dBA or less. By comparison, for normal, intelligible speech at a distance of about ten feet between speakers, the background sound would have to be 55 dBA or less.

Most equipment manufacturers, and especially those who produce or market in Europe or Asia, will have detailed noise performance specifications for their products. Many also provide silencing packages, both design and retrofit.

Copies of the revised Ordinance will be mailed upon request. If there are any questions or comments, please do not hesitate to contact the Office of Environmental Policy and Compliance at 240-777-7770.