

**PROPOSAL FORM**  
**BALTIMORE COUNTY**  
**DEPARTMENT OF PUBLIC WORKS & TRANSPORTATION**  
**TOWSON, MARYLAND**

***Division of Construction Contracts Administration***

IN CONJUNCTION WITH  
CONSENT DECREE  
ENTERED INTO BY AND  
AMONG THE UNITED  
STATES OF AMERICA,  
THE STATE OF  
MARYLAND AND  
BALTIMORE COUNTY,  
MARYLAND



Contract Number 17031 SX0  
SEWER DESIGN PROJECT  
Herring Run Sewershed Structural  
Sewer Rehabilitation – Phase II  
Towson – District 9c5,6  
Workday Number 010777235  
Job Order Number 231-201-0077-7235

**CONTRACT BASED ON SEPTEMBER 2023**  
**STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS**  
**AND STANDARD DETAILS FOR CONSTRUCTION**

**Bidders Information**

A pre-bid meeting will be held on Wednesday, July 2, 2025 at 10:00 a.m. EST via WebEx. *Phone-In* (Audio Only) 1-415-655-0001, Meeting Number 2306 741 6415##. *Video Conference* go to <https://signin.webex.com/join> Meeting Number 2306 741 6415#, Password **gBeP2EREY76**, for Webex link go to: [www.baltimorecountymd.gov/departments/public-works/engineering/contracts/current-solicitations](http://www.baltimorecountymd.gov/departments/public-works/engineering/contracts/current-solicitations)

Baltimore County Prevailing Wage and Local Hiring Affidavit, Wage Rates & Requirements **see pages 533-540**

**(Contract Disclosure):** *“Wage rates that are in effect as of the contract solicitation date will be the wage rates through the duration of the project”*

MBE/WBE Requirements & Forms **see pages 541-555**

**THIS PROPOSAL FORM INCLUDES AND INCORPORATES ALL DOCUMENTS AND INFORMATION REFLECTED, LISTED, AND/OR REFERENCED IN THIS TABLE OF CONTENTS, AND ALL SUCH DOCUMENTS AND INFORMATION ARE PART OF AND INCORPORATED INTO THE CONTRACT DOCUMENTS.**

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# SECTION I

## INFORMATION FOR BIDDERS

### ELECTRONIC SUBMITTAL PROCESS

To be considered, Bids (Section IV – Proposal) shall be received by the bid closing date and time to the following email address [dpwbid@baltimorecountymd.gov](mailto:dpwbid@baltimorecountymd.gov). The contract number and company name should be referenced in the Subject Line of the email. Bids may not be submitted by any other means. Bids that are mailed or otherwise delivered to the Purchasing Division (including emails which indicate links to locations where the bid may be downloaded) and/or emails sent to any other Baltimore County email address will not be accepted.

Late Bids will not be considered. Bidders are strongly encouraged not to wait until the last minute to submit bids. The time stated on the auto-receipt (described below) will be definitive of the time of receipt. Bids received after the deadline will not be accepted. Bidders are advised that the County cannot receive email attachments greater in size than twenty-five (25) megabytes and this size limitation may be further reduced by requirements of the Bidder's email provider which are beyond the control of the County. Bidder should consider separating any large bid attachment into multiple parts and emailing each part separately. In such case, Bidder will note that each email is *1 of 2, 2 of 2*, etc. Multiple part bids will not be considered unless all parts are received by the bid closing date and time.

After submitting a Bid to [dpwbid@baltimorecountymd.gov](mailto:dpwbid@baltimorecountymd.gov), and upon successful receipt by the County thereof, Bidder will receive an auto-receipt email. This receipt is proof that the bid has been received by the Division of Construction Contracts Administration and should be retained for Bidder's records. In the case of a bid submitted in multiple parts as described above, an auto-receipt email will be generated for each part. The County has no obligation to consider any Bid for which an auto-receipt was not generated.

As with any system, power outages or technology problems may arise that are outside of the County's control and could affect your submission. The County will not be held accountable for such issues that may delay the transmission of any Bid.

**NOTE:** Electronic copy of the Bid Bond will be accepted at bid opening. The apparent low bidder is required to submit the original Bid Bond within ten (10) days after the bid opening to the Division of Construction Contracts Administration, 111 West Chesapeake Avenue, Room 300B, Towson, Maryland 21204.

### INSTRUCTIONS AND SPECIFICATIONS

Refer to the enclosed proposal sheets for quantities to be bid upon. All proposals submitted on the attached form must give the price in clear figures for each item of the proposed work and be signed by the bidder with his name and address. Bidders must not change any item in the proposal for which a price has been stipulated by the County. Any change will cause rejection of the proposal.

NOTE: STATEMENT UNDER OATH FORM TO ACCOMPANY BID as per Baltimore County Purchasing Act 65-98, Section 15-94 and 15-95 which requires that the enclosed affidavit (see Proposal Affidavit pages in Section IV) be completed and submitted as part of the sealed bid.

Proposals made on any other than the attached form will not be considered. All papers included in, bound thereto, or attached to the Proposal Form are necessary parts thereof and shall not be detached, separated, or altered in their intent.

**Changes in the phraseology of the proposal, additions, or limiting provisions will render the proposal informal or void and may cause its rejection.**

All right is hereby reserved by the Purchasing Agent to reject any or all proposals and to waive formalities and technicalities as the interest of the County may require.

No successful bidder may withdraw his bid within **NINETY (90)** days after the opening thereof.

The successful bidder will be required to be bonded to Baltimore County, Maryland to the sum of One Hundred per Cent (100%) of the amount of his proposal or proposals according to the form of bond hereto attached for projects in excess of \$25,000.00.

This Proposal must be accompanied by a Bid Bond in an amount of 5% of the bid, the exact amount to be determined by the difference between the low bid and the next lowest bid if two or more bids are received, or 5% of the bid if one bid is received. This guarantees payment of the amount thus determined in case of a default in any matter specified as required before award or in any matter resulting in failure to execute and deliver an Agreement, together with Payment and Performance Bonds, after award. The Bid Bond must be in the form accompanying the Proposal executed by a Surety licensed in the State of Maryland. The Surety must be currently rated "B" or better by the A. M. Best Company, and the bid must be in an amount less than, or equal to, the underwriting limitation contained in Department of Treasury Circular 570 as amended at the time of the underwriting.

All work to be performed under this contract shall be done under strict compliance with Baltimore County Department of Public Works and Transportation September 2023 Standard Specifications for Construction and Materials and Standard Details for Construction and any and all proposed revisions thereto as of the date of advertisement and copies of which are available on the County's website at [www.baltimorecountymd.gov/departments/public-works/standards](http://www.baltimorecountymd.gov/departments/public-works/standards), and all of which are made a part hereof and incorporated herein (collectively, the "Specifications").

If the bidder to whom an award is made shall fail to execute the contract and bond hereto attached and as herein provided, the award may be annulled and the contract awarded to the lowest responsible bidder who has consented to a time extension, and such bidder shall fulfill every stipulation embraced herein as if he were the original party to whom the award was made, or the Purchasing Agent may reject all of the bids as the interest of the County may require.

The Bid Bond of the three lowest bidders is deemed to be effective until the execution and delivery of the Contract Agreement, together with Payment and Performance Bonds for projects in excess of \$25,000.00 or until rejection of all bids, whereupon Surety is deemed relieved of all further obligations under the bid bonds provided.

Bidders must examine the drawings and specifications carefully and must make a personal examination of the location and nature of the proposed work. In case doubt shall arise as to the meaning or intent of anything shown on the drawings or comprised in the specification, inquiry shall be made of the Director of Public Works and Transportation at least five (5) days prior to the date of

bid opening. The submission of the Proposal shall indicate that the bidder thoroughly understands the drawings and the terms of the Specifications.

To better ensure fair competition and to permit a determination of the lowest bidder, unresponsive bids or bids obviously unbalanced may be rejected by the Purchasing Agent.

Bidders are required to fill out the total price column and total their proposals so that the result of the bidding, barring possible arithmetical errors, will be known at once. Any errors in computations will be corrected by the Engineer when the proposals are canvassed. Where the unit price and the total price are at variance, the unit price will prevail.

Bidders must be prepared to complete the work within the time stated in the proposal.

**NOTE: ONLY CONTRACTORS FORMALLY PRE-QUALIFIED WITHIN THE ADVERTISED WORK CLASSIFICATION BY THE DIRECTOR OF PUBLIC WORKS AND TRANSPORTATION OF BALTIMORE COUNTY 10 CALENDAR DAYS PRIOR TO BID OPENING WILL BE ELIGIBLE TO SUBMIT BIDS.**

Contracts for work under this proposal will obligate the contractors and subcontractors not to discriminate in employment practices. Bidders must, if requested, submit a compliance report concerning their employment practices and policies in order to maintain their eligibility to receive the award of the contract. Successful bidders must be prepared to comply in all respects with the Contract Provisions regarding nondiscrimination.

Baltimore County has adopted a Minority Business Enterprise (MBE) program and Women's Business Enterprise (WBE) Program. The percentage of participation applies to the contract amount awarded to the Contractor. Qualified minority subcontractors are those certified as being a Minority Business Enterprise by the following:

1. Maryland Department of Transportation Certification Committee (MDOT)
2. City of Baltimore, Minority Business Certification Council

Projects funded by the Federal Highway Administration are limited to the certification listed under #1 (MDOT).

More detailed information regarding the County's MBE/WBE Program can be obtained from the County MBE Office, telephone (410) 887-3407. See Executive Order dated December 6, 2022. MBE/WBE Participation Summary and Forms A, B, C, D and E enclosed in this proposal booklet.

**NOTE:** If you do not complete and submit the enclosed forms with your bid or offer to the County, the County may, in its sole discretion, deem your bid or offer **NON-RESPONSIVE** and accordingly the **COUNTY WILL NOT CONSIDER YOU FOR CONTRACT AWARD.**

The County reserves the right to require the low bidder to produce evidence indicating that the company's financial condition is equal to, or better than, that enjoyed by the company at the time of prequalification. This additional information may be in the form of a financial statement or other evidence satisfactory to the Office of Budget and Finance.

Bidders' attention is directed to the requirement that a permit must be obtained from the Baltimore County Bureau of Highways and Bureau of Traffic Engineering prior to cutting any County

road for the purpose of obtaining sub-surface soils information, and permission must be obtained from the State Highways Administration prior to making any openings in a State road.

Under no circumstances shall a bidder enter upon any property outside a County or State road for the purpose of securing sub-surface soils information until permission is received from the property owner. The fact that the County has obtained a utility easement does not give the bidder the right to enter upon the property.

**Prevailing index price of asphalt cement/ton \$640.00.**

**INCLEMENT WEATHER POLICY:** If Baltimore County General Government Offices are open or open with liberal leave the day the bids are due, the bids are due as stated in the bid documents (date and time). **ONLY** when the Baltimore County General Government Offices are **OFFICIALLY CLOSED** the day the bids are due, the bid date will be postponed and an Addendum will be issued the next business (or next day buildings are officially open) day the county offices are open with the new bid date and time.

**BID TABULATIONS:** All bid tabulations will be confidential until after final award, at which time the total bid amounts for all bidders, as well as the complete bid tabulations for the top three (3) bidders, can be inspected by others when requested in writing pursuant to the Maryland Public Information Act.

**ALTERNATIVE SOURCES OF CONTRACT BONDS:** In the event your company is unable to qualify for bonding through a traditional commercial surety company, you may qualify for the required bonds through the State of Maryland, Department of Commerce (DOC). The **Maryland Small Business Development Financing Authority (MSBDFA, pronounced Mis-Bid-Fa)**, an agency of DOC, operates a Surety Bond Program designed to assist small businesses, based in Maryland, that are unable to obtain adequate bonding on reasonable terms in the commercial marketplace. MSBDFA provides bid, payment and performance bonds for contracts funded by government agencies, regulated utilities and private entities. The penal sums of the bonds are limited to the aggregate amount of \$2,500,000 and companies may pre-qualify for multiple bonds within pre-approved terms and conditions. MSBDFA also provides lines of credit, term loans and loan guarantees to help qualified businesses purchase equipment and real property, make improvements to leased property, refinance existing debt and assist them with their working capital needs. For more information on how to apply, you may contact: Meridian Management Group, Inc. (MMG), (the Program's Manager), 826 E. Baltimore Street, Baltimore, Maryland 21202, Telephone: (410) 333-4270. Or visit their website at [www.mmcapitalgroup.com](http://www.mmcapitalgroup.com) for information, applications and a checklist of required documents and reports that must accompany the application.

## **S E C T I O N   I I**

### **SPECIAL PROVISIONS**

## **MAINTENANCE BOND**

Per the Baltimore County Department of Public Works and Transportation September 2023 Standard Specifications for Construction and Materials, Section GP – 4.10 (C) states, the contractor is required to post a maintenance bond in the amount of five (5) percent of the total cost of the contract or withhold five (5) percent retainage for two (2) years from the date of Final Acceptance.

BALTIMORE COUNTY, MARYLAND

BOND NO. \_\_\_\_\_

CONTRACT NO. \_\_\_\_\_

**MAINTENANCE BOND**

THIS MAINTENANCE BOND is entered into on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_ as principal ("Principal") and \_\_\_\_\_, a business entity that is authorized to transact business in the State of Maryland and is organized and existing under the laws of the State of \_\_\_\_\_, as surety ("Surety"), are held and firmly bound unto Baltimore County, Maryland, a body corporate and politic of the State of Maryland ("County"), as Obligee.

WHEREAS, the above-named Principal has entered into a written contract known as Contract Number \_\_\_\_\_ dated \_\_\_\_\_, 20\_\_\_\_ with Obligee for \_\_\_\_\_ (the "Agreement"), the terms of which are hereby incorporated by reference; and

WHEREAS, Principal has completed construction under the Agreement; and

WHEREAS, the Agreement includes a warranty on the quality of the Work performed that runs for a period of two (2) years from the date of the County's final acceptance and that runs for two (2) additional years beyond the repair date if any repair is done during the warranty period; and

WHEREAS, Principal is required to cause this instrument to be executed and delivered to Obligee as security for maintenance during the warranty period in an amount equal to 5% of the total value of the Contract.

NOW, THEREFORE, the Principal and Surety are held and firmly bound unto the Obligee in the sum of \$ \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), lawful money of the United States of America, for the payment of which sum of money the Principal and Surety do bind themselves and their personal representatives, legal representatives, successors, and assigns, jointly and severally, firmly by this maintenance bond.

The conditions of this bond are as follows:

1. The Principal shall, for a period of two (2) years from and after the date of completion and acceptance of same by Obligee, replace all defects arising in the Work, whether resulting from defective materials, equipment, design furnished or workmanship. After such period, this obligation shall be null and void; otherwise it shall remain in full force and effect.

2. In the event of a default on the part of the Principal that may be the subject of a claim under this bond, Obligee shall mail, by certified mail, to Surety at the address listed below, a written statement that a claim is being made under the bond and, with substantial accuracy, the amount of the claim. Surety shall have no obligation to Obligee under this bond until the notice of claim is mailed.
3. When the Obligee has satisfied the condition of Paragraph 2 that a notice of claim be mailed, the Surety shall promptly and at the Surety's expense send an answer to Obligee within 30 days after the date of the claim. The answer shall state the amounts that are undisputed and the basis for challenging any amounts that are disputed. The answer shall be accompanied by payment (or arrangements for immediate payment) of any undisputed amounts.
4. Surety expressly waives any right to receive notice of extensions of time or alterations or modifications to the Agreement that may be granted by Obligee and agreed upon by Principal, and any such extensions, alterations, or modifications shall not affect the obligation of the Surety under this bond.
5. This bond is a specialty governed by the twelve-year statute of limitations period set forth in the Annotated Code of Maryland Courts and Judicial Proceedings §5-102.

WITNESS OR ATTEST:

\_\_\_\_\_

\_\_\_\_\_  
(Principal – Contractor Name)

By: \_\_\_\_\_

Type Name: \_\_\_\_\_

Type Title: \_\_\_\_\_

Date: \_\_\_\_\_

\_\_\_\_\_  
(Surety)

By: \_\_\_\_\_

Type Name: \_\_\_\_\_

Type Title: \_\_\_\_\_

Type Address: \_\_\_\_\_

Date: \_\_\_\_\_



**For Sanitary Sewer Rehabilitation Projects utilizing the County secure file transfer protocol site:**

Existing CCTV and manhole inspections for this project will be located on Baltimore County's secure file transfer protocol (SFTP) site. Anyone who downloads the bid package can be provided a user name and password to access the SFTP site. To obtain login credentials to access the SFTP site, please email the request to [cidwebportalaccess@baltimorecountymd.gov](mailto:cidwebportalaccess@baltimorecountymd.gov). The email request should include the contract name and number in the subject line. The body of the email should state "SFTP site login credentials are being requested" along with the Contractor's name, contact person, phone number and email address. The existing CCTV and manhole inspections may be downloaded for use in preparing bids. The SFTP site contains the CCTV and Manhole Inspections only. The Proposal Book and the Construction Drawings, along with the CCTV and Manhole inspections, constitute a complete bid package.

April 15, 2014  
Revised 9/10/14  
Revised 10/2/14  
Revised 10/15/15  
Revised 2/7/17  
Revised 2/21/18  
Revised 6/12/20

**U.S. Environmental Protection Agency (EPA)  
National Pollutant Discharge Elimination System (NPDES)**

**CONTRACTOR'S RESPONSIBILITIES**

For all County contracts with a "total disturbance" of one (1) acre or more, as that term is defined by the Maryland Department of the Environment (MDE), the County will make application on behalf of the Contractor to MDE for the NPDES permit.

At the contract pre-construction meeting, or such other time as the County deems advisable, the County will provide the Contractor with (a) the NPDES permit, (b) a NPDES Transfer of Authorization Form, (c) a NPDES Notice of Termination Form, and (d) a copy of the NPDES permit requirements. The Contractor shall read and review these documents completely, including, but not limited to, Part IV of the NPDES permit outlining the requirements for monitoring, record keeping, and reporting.

The Contractor shall sign and return the NPDES Transfer of Authorization Form to the County within two (2) calendar days of receipt. **Failure to do so may result in a breach of the contract, in the County's sole discretion, and enforcement of all rights and remedies available to the County.**

Upon full and final completion of the contract, as determined by the County, the Contractor shall complete and submit the NPDES Notice of Termination Form to MDE and provide a copy to the County. **Failure to do so may result in a breach of the contract, in the County's sole discretion, and enforcement of all rights and remedies available to the County.**

Any costs or expenses to comply with the NPDES permit, and any related MDE or EPA regulations, shall not be a separate pay item under the contract but shall be included by the Contractor in the "Other Items" portion of its bid. **No additional compensation to the Contractor shall be considered or provided by the County with regards to the NPDES permit or the related requirements.**

**SPECIAL PROVISIONS**  
**Herring Run, Phase II**  
**PART A - GENERAL REQUIREMENTS**

GENERAL

The Special provisions are hereby made a part of the Contract. In case of any conflict with the (2023) “Standard Specifications, General Provisions,” these Special Provisions shall govern.

All work to be performed under this Contract shall be done in strict compliance with the Baltimore County Standard Specifications for Construction and Materials, dated September 2023.

CONTRACT DOCUMENTS - DESIGN INTENT

Baltimore County Department of Public Works and Transportation Standard Specifications for Construction and Materials and the Standard Details for Construction, dated September 2023, are hereby made a part of the Contract and these Special Provisions.

Contract Drawings to be followed for this Contract shall be those approved drawings on file at the office of the Engineer. The Contract Drawings contain information as to amount, location, dimension and detail of the work to be performed in accordance with the Specifications. No deviation shall be permitted from the Contract Drawings and Specifications unless authorized in writing by the Engineer. Deviation by the Contractor from the Contract Documents without the Engineer’s prior written approval shall be at the Contractor’s risk and expense, including the expense of removal and restoration if so ordered.

Any discrepancies found between the Drawings and Specifications or any inconsistencies in the Drawings or Specifications shall be immediately reported to the Engineer, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the Contractor after his discovery of such discrepancies, inconsistencies or ambiguities prior to corrections directed by the Engineer shall be done at the Contractor’s risk. In the case of discrepancy or omission, the Engineer will determine the intent of the design in issuing clarifying or corrective instructions.

In order to fulfill the requirements of the Contract, conformance is required with both the Contract Drawings and Specifications. The Contractor is not released from responsibility for performing work called for in the Contract Drawings but not in the Specifications or vice versa; mention of work in either part is sufficient to include it under the Contract. In all cases, the decision of the Engineer will be final.

SITE INVESTIGATION

The Contractor’s attention is directed to Section GP-2.04 of the Standard Specifications, which is amended as follows:

The Contractor shall satisfy himself as to the nature and location of the work, general and localized conditions which will affect the prosecution of the work, particularly transportation, materials handling, storage, and disposal. The Contractor shall satisfy himself as to the physical conditions of the site, including conformation and condition of the ground, character, quantity and quality of subsurface materials which will be encountered, surface and subsurface conditions, including the presence of rock and groundwater, and all other conditions which may affect the performance or cost of the work under the Contract. Failure of the Contractor to properly acquaint himself with all available information relevant to these conditions will not in any way be cause for adjustment to the cost or schedule of the work nor relieve the Contractor from his responsibility to successfully perform the work.

### SUBSTITUTION OF EQUIPMENT OR MATERIALS

Whenever a material, article or process is specified or described by using the name of a proprietary product or the name of a particular vendor or manufacturer followed by the phrase “or equal,” the specific item mentioned shall be understood as establishing type, function, dimension, appearance and quality desired and is to be the basis upon which bids are prepared.

Equipment or materials, other than those specified, will be permitted provided that, in the opinion of the Engineer, such equipment is equal to or better than that specified. Any such decision of the Engineer with respect to approval or disapproval of any equipment or material proposed to be substituted as an “or equal” is final, and the Contractor shall have no claim of any sort by reason of such decision.

If the Contractor proposes to provide equipment or materials as “or equal” to those specified, it shall be his responsibility to furnish complete, specific, detailed information from the manufacturer or supplier of such equipment or material establishing conformance with the requirements of the Contract Specifications. This shall consist of an item-by-item comparison of the Contract Specification requirements with the equipment or material proposed to be furnished. In the event the Contract Specifications mention a model number or other designated manufacturer in lieu of the detailed description and manufacturer, an item-by-item comparison shall be furnished of the equipment specified under the Contract and that proposed to be substituted. The Contractor shall bear the burden of responsibility of demonstrating that the equipment or material to be substituted is equal to, or of higher quality than, that specified. Submission of incomplete, insufficient or irrelevant data as evidence of compliance with this provision shall be grounds for denial of the Contractor’s request.

All requests for approval of equipment and materials other than specified shall be submitted by the bidders to the Baltimore County Department of Public Works and Transportation, Contract Division, in writing no less than fourteen (14) calendar days prior to the opening of bids for approval. If approved by the Department of Public Works and Transportation, all bidders will be notified through an addendum to these Specifications no less than seven (7) days prior to the opening of bids. Upon extension of the opening date of the bids, the deadline for approval of equal or substitute equipment shall not be extended but shall remain fixed relative to the original date of the bid opening. Requests for changes to equipment or material must be made by the

prime bidders, and requests for such changes by manufacturers or suppliers will neither be considered nor approved.

After the opening of bids, any request by the Contractor to substitute equipment or materials for those specified herein will be presumed to be for the purpose of saving money. If such a request is approved, the Contractor shall provide the County with a credit equal to the difference between the net cost to the Contractor of the article submitted and the lowest cost to the Contractor of the article specified. The Contractor shall submit these figures accompanying each substitute submittal; no request for substitution of equipment or materials will be considered without such figures.

The Engineer may, at his discretion, authorize use of substitute items or materials at greater, less or equal cost to those specified when required due to the Contractor's inability to obtain specified equipment or materials in a timely manner where unreasonable delays to the progress of the work may result.

In the case of the two aforementioned paragraphs, the Contractor shall submit a written request for permission to use substitute equipment or materials, furnishing full information as to the costs of the items or materials specified and the substitute item or material. Such information shall be of sufficient detail to permit verification by the Engineer of the costs submitted. If approved by the Engineer, written authorization for credit to the County or payment to the Contractor will be made based on the cost difference between the specified item and the substitute item.

All decisions of the Engineer with regard to credits to the County, payments to the Contractor or equipment and materials to be substituted, shall be final.

#### FIRE HYDRANT UTILIZATION

Fire hydrant permits must be obtained if water is required from a hydrant. No water is to be drawn from a public fire hydrant except through a meter. Applications are made through the Bureau of Utilities Fullerton Complex 4421 Bucks Schoolhouse Road, Suite 100, Baltimore, Maryland 21237 email: [utilities@baltimorecountymd.gov](mailto:utilities@baltimorecountymd.gov) Phone: 410-887-1885 Fax: 410-887-1886. All costs are considered incidental to the cost of items bid. The Contractor is responsible for keeping water use records and providing this information to the Inspector. Failure to return the meter in good condition or utilization of the meter provided for any other purpose will be grounds for assessment of associated costs against the Contractor as liquidated damages.

#### ENVIRONMENTAL PROTECTION

The Contractor, and his subcontractors, in the performance of this Contract, shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement as well as the specific requirements stated elsewhere in the Contract Documents.

The Contractor shall take all precautions necessary in order to avoid pollution of water in adjacent watercourses or water storage areas, including wells.

All earthwork, equipment movement, control of water in excavations and other operations that may create silting, shall be conducted in a manner to keep water pollution to an absolute minimum.

Water used during the Contract work which has become polluted with oil, harmful or objectionable chemicals, sewage or other pollutants, shall be disposed of in a manner that will not affect nearby waters and land. The Contractor shall not, under any circumstances, discharge pollutants into any watercourse.

The Contractor shall take all precautions necessary in order to avoid noise and air pollution during the course of the Contract.

The Contractor shall maintain all work areas free from dust that would contribute to air pollution. Approved temporary methods of stabilization consisting of sprinkling, chemical treatment, or similar methods will be permitted to control dust. Sprinkling, where used, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times. Dust control shall be performed as the work proceeds and whenever the dust nuisance or hazard occurs. The use of road oils and waste oils to control dust is prohibited.

The Contractor shall keep clean all streets, driveways and sidewalks affected by his operations. Trucks hauling excavated materials, cement, sand, stone, or other loose materials from or to the site shall be tight so that no spillage will occur. Before trucks start away from the site, their loads shall be carefully trimmed to prevent spillage.

The Contractor shall provide all labor, materials, equipment and services necessary for, and incidental to, the complete and satisfactory application of temporary sediment control measures throughout the time of the Contract as specified herein.

In order to prevent and to provide for abatement and control of any environmental pollution arising from the construction activities of the Contractor and his subcontractors in the performance of the Contract, the Contractor and his subcontractors shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

It shall be the Contractor's responsibility to adhere to the "Standards and Specifications for Soil Erosion and Sediment Control in Developing Areas" as approved and adopted by the State of Maryland, Department of Water Resources, an agency of the Department of Natural Resources; and furthermore, the Contractor also shall adhere to the provisions of the Standard Specifications, Section 308, and any revisions thereof or additions thereto and all sections referred to therein.

The Contractor shall notify the County's Project Engineer indicating the source of all borrow material and the disposal site for excess material. The Contractor shall be responsible for obtaining sediment control permits from the appropriate agency for off-site disposal of excess material.

Surface drainage from cuts and fills within the construction limits, whether or not completed, and from borrow and waste disposal areas shall, if turbidity producing materials are present, be held in suitable sedimentation ponds or shall be graded to control erosion within acceptable limits. Temporary erosion and sediment control measures, such as berms, dikes, silt fences, drains or sedimentation basins, if required to meet the above standards, shall be provided and maintained until permanent drainage and erosion control facilities are completed and operative. The area of bare soil exposed at any one time by construction operations shall be held to a minimum. Fills and waste areas shall be constructed by selective placement of materials to eliminate silts or clays on the surface that will erode and contaminate adjacent rivers, streams, lakes, or ponds. Further protection of any excavation storage area, waste area, or fill area shall be provided by the Contractor by the installation and maintenance of a silt fence, as shown on the Contract Drawings, around the down slope perimeter of such areas.

The cost for any excavation and/or fill and incidentals involved in connection with the construction of erosion, sediment and pollution control devices required on this project shall be included in the prices bid in the Contract.

In general, the Contractor shall erect sediment control devices prior to beginning any other earthwork under the Contract. Areas through which vehicular access to and from the site will be gained shall be stabilized by the Contractor in accordance with the Standard for Stabilized Construction Entrance. Swales, ditches, stockpiles of earth and topsoil and other cleared or graded areas shall be temporarily stabilized with seed and mulch. All areas disturbed by the Contractor shall be seeded and sodded to the satisfaction of the Engineer.

#### *Temporary Drainage*

The Contractor shall conduct his work in such a manner that the efficiency of the existing surface drainage and pipe storm drain system will not be diminished.

The Contractor shall keep all drainage and water courses unobstructed, or provide equal courses effectively placed, to prevent accumulations of surface water.

#### *Stream Flow Protection*

The dewatering or pumping out of trenches, utility line structures, or newly excavated areas directly into a stream which causes turbidity and/or erosion of stream banks will be prohibited. The Contractor shall make use of sediment traps, filters or other methods as stated in "Erosion and Sediment Control Provisions," included in Section 308 of the Standard Specifications and Materials for Construction. The restrictions contained herein shall be strictly enforced, and the Contractor is cautioned to make every effort possible to comply with these regulations and shall conduct his operations in such a manner to keep to an absolute minimum the amount of sedimentation introduced into any stream.

Upon completion of the project and after such devices have served their purpose, such devices shall be removed from the project by the Contractor at his own expense.

The Contractor shall not allow the site of the work to become littered with trash and waste materials but shall maintain the site in a neat and orderly condition throughout the period of the work. Cleaning up, including the restoration of areas of construction, shall proceed as quickly as is practicable after the construction is completed in any given area. This period, between construction completion and final cleanup, normally shall not exceed two (2) weeks.

Within ten (10) days after completion of the work and before final acceptance, the Contractor shall, without charge, tear down and remove all temporary structures built by him, remove all rubbish of all kinds from any ground which he has occupied, and shall leave the work site in a clean and orderly condition.

If at any time during the course of the work, the cleanup operation in any given area should become delinquent in the opinion of the Engineer, he may order that construction be stopped until such delinquent cleanup is completed.

The Contractor shall not be entitled to any additional compensation or extension of time of completion should such stoppage of construction be ordered by the Engineer.

Burning will be allowed only if approved in writing by the Fire Marshal and authorized in writing by the Engineer. The specific time, location and manner of burning shall be subject to the approval of the Engineer. Fires shall be confined to a closed vessel, guarded at all times, and shall be under constant surveillance until they have burned out or have been extinguished. All burning shall be so thorough that the materials will be reduced to ashes.

## GUARANTEE

The Contractor shall guarantee all materials and equipment furnished and work performed for a period of two (2) years from the date of the Division of Construction Contracts Administration (DCCA) acceptance letter for that work. The Contractor warrants and guarantees that the completed work is free from all defects due to faulty materials, equipment and workmanship and is in every way fit for the use intended, including but not necessarily limited to, the following:

Against all faulty or imperfect materials and equipment, subsidence of fill, backfill and embankment, vegetative stabilization and against all imperfect, careless and/or unskilled workmanship.

That work performed under this Contract, including all mechanical and electrical equipment, appurtenances and every part thereof, shall operate, with due care and maintenance, in a satisfactory and efficient manner in accordance with the requirements of these Contract Documents.

Where manufacturer's equipment warranties required elsewhere herein are in effect for a period longer than the Contractor's guarantee period, the County shall be named beneficiary of said warranties; and the Contractor shall furnish the County with a copy of said warranty.



That all structures and equipment designed to hold or convey water or prevent the entrance of water shall be watertight and leakproof at every point in accordance with their intended use.

No use or acceptance by the County of any part of the work, nor failure to use same, nor any repairs, adjustments, corrections or replacements made by the County due to the Contractor's failure to comply with any of his Contract obligations, or other corrections made by the County shall modify in any way the guarantee obligations of the Contractor under the Contract Documents.

The Contractor shall promptly make corrections as necessary by reason of such defects, including damage to other parts of the work resulting from such defects. The Contractor agrees to replace with proper workmanship, materials and equipment, and to correct and repair without cost to the County, any work which does not operate satisfactorily nor performs as specified, does not conform to the Contract Documents or is otherwise improper or imperfect. Exceptions will be made only for damage resulting from direct negligence of County personnel or that due to normal wear and tear. In the event the Contractor fails to properly perform such repairs or corrections or other work made necessary by such defects, the County may do so and shall charge the Contractor for costs incurred.

#### PROGRESS MEETINGS

The Contractor shall hold monthly "progress meetings" at the site, at a time suitable to the Engineer, at which the progress of the work shall be reported upon in detail with reference to schedules. Each interested subcontractor shall be required to have present a competent representative to report the condition of his branch of the work and to receive instructions. Minutes of these "progress meetings" shall be taken by the Contractor who shall type them for distribution to members of the conference, the Bureau of Engineering and Construction and other interested persons. These minutes shall be received by all parties prior to the next scheduled "progress meeting." All cost to be included in other items bid.

#### PRESERVATION AND RESTORATION OF PROPERTY

The Contractor's attention is directed to Section GP-7.11 of the Standard Specifications which defines his responsibility for restoration of all public and private property affected by the prosecution of work.

#### DISPOSAL OF EXCESS SOIL AND DEMOLITION MATERIALS

All excavated material not required or unsuitable for backfill or other designated purposes shall be removed from within the limits of the work and disposed of by the Contractor at his own expense.

### TEMPORARY MULCHING

- A. All non-paved areas disturbed (except wetlands) will receive temporary mulching. Temporary mulching will be placed after completion of sewer construction and before final restoration. Areas subject to redisturbance shall receive temporary mulching as directed by the Engineer. (Wetlands will be restored as noted on drawings and will not be redisturbed.)
- B. All cost for temporary mulching shall be included in the unit price bid for sewer pipe rehabilitation.

### SITE VIDEO

The Contractor shall video tape the entire construction route prior to construction and shall provide two (2) copies of the video to the Chief, Construction Contracts Administration Division. Cost of the video will not be a pay item but must be included in other items bid, and no additional compensation to the Contractor will be considered.

### EXCAVATION SUPPORT SYSTEM

- A. The Contractor shall support the sides and ends of all excavations with sheeting, shoring, stringers, trench boxes or other methods of the type, size and quality required for either temporary or permanent support. The Contractor shall submit details of his excavation support system and design computations prepared by and sealed by a Professional Engineer registered in the State of Maryland. The Engineer must approve the support concept, and the Contractor will be entirely responsible for the design and adequacy of the approved excavation support system.
- B. The temporary excavation support systems shall be removed as refilling proceeds in a manner so as not to damage any pipelines, structures, roadbed, fill or property. The Contractor shall be entirely responsible for the condition of all excavations made by him for the entire period of the Contract. All slides, caves or other unacceptable conditions shall be promptly corrected, whenever they may occur, without extra compensation.
- C. Cost of the excavation support system shall be included in the cost of pipe installed.

### DEWATERING, DRAINAGE AND PUMPING

- A. The Contractor shall submit for approval his procedure for any dewatering. The Contractor shall design, furnish, install, maintain and operate all necessary dewatering equipment and structures at the Contractor's expense.
- B. The Contractor shall design his dewatering system to insure that trenches remain open and conform to OSHA standards for safety. Disposal of drainage water from dewatering

devices shall be accomplished in a manner that conforms to Maryland Standards and Specifications for Soil Erosion. No water shall be discharged to a sanitary sewer.

- C. The Contractor shall design his dewatering system so that the dewatering is localized to the construction area. The Contractor shall be responsible for all damage and shall assume all expense for any buildings, structures, walls, poles, etc., that are affected by the dewatering.

#### EXISTING UTILITY FACILITIES

Existing utilities shown in the Contract Drawings are from available records and are shown for the Contractor's convenience only. Baltimore County Department of Public Works and Transportation does not guarantee in any way the completeness or accuracy of the information given and shall be held harmless from any claims arising from damage to such facilities in the course of the work. The Contractor shall satisfy himself as to the presence of utilities and will take appropriate precautions to prevent damage and will maintain utility service during the performance of the work. The Contractor shall be liable for any damages to existing utilities caused by his operations as stipulated in Section GP-5.05.

#### VACUUM TEST FOR MANHOLE

A vacuum of 10 inches (mercury) shall be applied to the manhole and the time lapse shall be measured for the vacuum to drop from 10 inches to 9 inches. The following table of the time lapse measured will be used for acceptance of manholes.

Manholes with the time lapse for the specified vacuum drop greater than the times shown in the table are considered to pass the vacuum test.

Cost for vacuum testing of manhole shall be included in the Unit Price Bid (VF) for standard sanitary manhole.

Depth of Manhole	Time Lapse (Seconds)		
	Manhole Diameter (Inches)		
	48"	60"	72"
8	14	18	23
10	17	23	28
12	21	28	34
14	25	32	40
16	28	37	45

Depth of Manhole	Time Lapse (Seconds)		
18	32	41	51
20	35	46	57
22	39	51	62
24	42	55	68
26	46	60	74
28	49	64	80
30	53	69	85

### SPECIAL PROVISIONS

- A. Road Repair – Compensation for road repair shall be based on actual trench width called for in the Standard Specifications. Any damage outside those limits caused by installation of the utility or construction traffic related to the project shall be repaired in kind at the Contractor's expense.
- B. Maintenance of Trench Repair – All trenches shall be maintained and kept in as good as possible condition by the Contractor during construction. On projects where the trenches are backfilled with compacted native material, the Contractor will be paid under the appropriate line item(s) for the initial repair. If that repair fails due to "pumping" of the native material placed in the trench, the Contractor shall be compensated for his restoration. If the repair fails due to settlement of the trench, the repair shall be made at the Contractor's expense.

In trenches where borrow material is used, repairs shall be made and compensated for in accordance with the Standard specifications. Any failure or settlement of these repairs shall be restored at the Contractor's expense.

- C. Final Paving – Final bituminous overlay in state roads shall be done by a prequalified contractor with an A-2 classification (at time of bid) as approved by the Baltimore County Bureau of Engineering and Construction. Temporary paving does not apply.

### BORINGS AND TEST PITS

- A. If borings have been completed, the test boring logs presenting physical data on subsurface conditions are for information purposes only. Neither Baltimore County nor the Engineer warrants or guarantees that the conditions and/or any part thereof will be the same as shown by the test borings. If the Contractor relies for any purposes upon said information, he does at his own risk.

- B. The Contractor is responsible for making his own investigation, evaluation, and determination of the work site soil conditions prior to bidding. Rock, if encountered, shall not entitle the Contractor to additional compensation.
- C. Soil borings, or test pits, for soil determination in improved roads are not to be excavated by the Contractor unless prior application is made by the Contractor and permit is issued by the Baltimore County Bureau of Highways and Traffic Operations.
- D. All known subsurface lines, pipes, conduits, and structures are shown on the plans and profiles. These lines are shown based upon the best available plans and maps. The locations have not been verified by test pits, and Baltimore County assumes no responsibility for the accuracy of the drawings. In any area where the Contractor must make connections to or cross existing lines, it shall be his responsibility to test pit the lines and to verify the locations to his satisfaction. In the event that lines are not found located as shown on the plans, the Contractor shall notify the Engineer so that an evaluation may be made to determine the magnitude and method of any adjustments made to the plans.
- E. The Contractor solely shall be responsible for any damage to any underground or aboveground lines encountered in any manner during construction. When crossing and working in the vicinity of existing lines, it will be the Contractor's responsibility to properly support and maintain the operation of the lines. Extreme care must be exercised in excavation and refill operations. The Contractor will correct, at his own expense, any damage caused to existing lines.

#### STEEL PLATING AND SOLID SHEETING

- A. If steel plates are used, they shall be used to cover open trenches in roadways during non-working hours. The cost for this work, material, labor, etc., shall be included in the lump sum price for Maintenance of Traffic.
- B. If steel plates are used, solid sheeting and shoring shall be used for the limits of the steel plating. The cost for this work, material, labor, etc., shall be included in the unit price bid for sanitary sewer pipe.

#### MAINTENANCE OF TRAFFIC

- A. A minimum single lane of traffic is required to be maintained at all times on all roadways.
- B. At the end of each workday, the Contractor is required to complete the following:
  - 1. Backfill and/or plate over all open excavations so that two lanes of traffic are maintained.
  - 2. Remove all equipment and material from the traveled portion of the roadway. Also, equipment and materials should not be stored in such a manner as to obstruct sight distance at any driveway or intersecting road.

3. Cover or remove all signs referring to a single lane operation. Also, it may be necessary for the contractor to provide "STEEL PLATES AHEAD" signs on each approach to the construction area, if appropriate, or as directed by the inspector for the project.
- C. All existing driveway access must be maintained at all times.
- D. Plans must be submitted to SHA District 4 Traffic for work being performed within their right of way. A Lane Closure Permit Application must be submitted to SHA District 4 prior to any lane closures.

The Contractor is to be responsible for the fabrication, installation and maintenance of all traffic control devices. Said devices shall be in accordance with the Manual on Uniform Traffic Control Devices. Also, the Contractor may be required to furnish additional signs should conditions warrant. Regarding the control of traffic through work areas, Part 6 "Temporary Traffic Control" of The Manual on Uniform Traffic Control Devices (Latest Edition) shall be utilized.

Once the Contractor has received their notice to proceed, the Division of Traffic Engineering will inventory the existing traffic control devices throughout the construction area. Should it be necessary for any devices to be removed by the Contractor, his personnel, or their subcontractor during construction, the Contractor shall be responsible for the safe storage of these devices. Should they become damaged, defaced, lost, etc., the Contractor will be billed for replacement of these devices. The Contractor also will be responsible for the re-installation of any permanent devices removed during construction.

#### FINAL RESTORATION *(non-paved areas disturbed)*

All non-paved areas disturbed by the construction of the sewer system, are to receive 4 inches of topsoil, fine graded, and seeded unless otherwise noted on the Plans and/or Specifications.

#### BACKFILL AROUND SANITARY SEWER MANHOLES IN ROAD RIGHT-OF-WAY

CR-6 or CR-1 backfill shall be placed as shown on Standard Detail G-2 of the Contract Specifications. The cost to furnish and install CR-6 or CR-1 shall be included in the unit price bid for standard sanitary manhole.

#### PROJECT SCHEDULING REQUIREMENTS

Within ten (10) working days after the date of award, the Contractor shall submit to the County for the County's review and approval the information identified in this contract as submittals following award. Failure to do so may be grounds for termination of contract. If this deadline is not met, the Contractor shall schedule a meeting with the County to discuss this failure. **The Contractor will not be able to begin any other aspect of the Contract Work, including, but not limited to, any physical portions of the Contract Work, until all Contract submittals**

**are complete and approved by the County. Five copies of the Contract submittals are required. However, Contract Time will begin to run within fifteen (15) working days from the date of Notice to Proceed, even if the Contractor has not yet completed all submittals and is therefore prevented from beginning any other Contract Work.** No additional Contract Time will be awarded to the Contractor for any and all delays caused, directly or indirectly, by the Contractor's failure to complete and receive County approval for all Contract submittals.

The following section shall replace and supersede Section GP-8.04 of the September 2023 Standard Specifications for Construction and Materials.

Section GP-8.04: Progress Schedule Requirements

A. GENERAL

1. Scheduling of construction is the responsibility of the Contractor. The Contractor must take all reasonable action to avoid or to mitigate the effects of delays including, but not limited to, rescheduling or resequencing the work, accepting other work, and reassigning personnel. When the Contractor is responsible for any delays, the County may order the Contractor to accelerate construction, work overtime, add additional shifts or manpower, work on weekends, or to do anything else reasonably necessary to complete the work on time, at no additional cost to the County.
2. The Contractor shall submit to the County for review and approval a Baseline Schedule, Monthly Progress Schedules, and any required Recovery Schedules as outlined in paragraph (2) through paragraph (6) of this section.
3. Failure of the Contractor to comply with the requirements of this section shall be grounds for determination by the County that the Contractor is not prosecuting the work with due diligence as to ensure completion of the work within the time specified in the Contract Documents or as agreed upon with the County after execution of the Contract. The County may terminate the Contractor's right to proceed with the work, or any separable part thereof, in accordance with Section GP-8.08 of these General Provisions.
4. The Contractor does not have the unilateral right to complete the work late and pay liquidated or other damages.

B. BASELINE SCHEDULE

1. The Contractor shall submit to Baltimore County a detailed Baseline Schedule indicating the time allocated by the Contractor for performance of each portion of the work. The schedule shall show commencement of work from the date the Notice to Proceed is issued. The schedule shall show completion of the work within the Contract time as specified in the Contract Documents or as agreed upon with the County after execution of the Contract.

2. The submitted Baseline Schedule shall be properly and reasonably sequenced to show the order of performing the various tasks of work. The schedule shall clearly identify the sequencing restraints and the critical activities necessary to complete the work on time and shall list proposed workdays, holidays and any special non-work days.
3. The submitted Baseline Schedule shall list the dollar value for each work item and shall show the Contractor's labor requirements for achieving each work item. The schedule shall also include a list of submittals related to material and equipment fabrication orders, permits, easements and any other work tasks requiring submittals. Each necessary submittal shall be shown on the schedule as a separate work activity with necessary dates of submittal, anticipated review and response time, anticipated dates of re-submittal if necessary, and anticipated dates for final review and approval.
4. Within 14 calendar days after the County reviews and rejects or conditionally approves the submitted Baseline Schedule, the Contractor shall make all necessary corrections and resubmit the corrected schedule. Baltimore County may decline to issue Notice to Proceed until the Contractor submits the required schedule and the County approves it.

C. SUBSEQUENT MONTHLY PROGRESS SCHEDULES

1. Within 30 days after the County issues Notice to Proceed, and on monthly basis thereafter, the Contractor shall submit a revised Monthly Progress Schedule accurately updated to reflect all revisions to the previously submitted schedule including actual commencement dates of listed work activities, actual work activities completed to date, and any sequence changes made or planned for the order of work activities and their effect on the critical path for completion of the whole project. The sequencing changes shall show extension of times granted by Baltimore County and any delays or early completion of work activities.
2. The Contractor shall meet with the County, or its designated attendee, at least once a month to discuss in detail the Contractor's updating of the Monthly Progress Schedule and the necessity for revision or correction in the schedule.
3. Within 10 calendar days after the County reviews and rejects or conditionally approves the submitted Monthly Progress Schedule, the Contractor shall make all necessary corrections and resubmit the corrected schedule.
4. The Contractor shall submit the required Monthly Progress Schedule whether or not the Contractor submits an application for payment each month. Baltimore County may decline to process any pending payment requests for this project until the Contractor submits the required schedule and the County approves it.

D. RECOVERY SCHEDULES:

1. Within 10 calendar days after the project falls behind schedule or is alleged by either party to be behind schedule, the Contractor shall furnish to the County, at no additional cost, a revised schedule hereinafter called a "Recovery Schedule". The



Recovery Schedule shall show how the Contractor will finish the project by the Contract completion date.

2. The Recovery Schedule shall include all of the information required under paragraphs (2), (3), and (5).

E. LOGICAL SEQUENCING AND LAYOUT OF THE SUBMITTED SCHEDULES (CPM SCHEDULES):

1. Unless the Contract Documents expressly permit the Contractor to use a schedule other than a Critical Path Method (CPM) schedule, the submitted Baseline Schedule, the subsequent Monthly Progress Schedules, and any required Recovery Schedules shall all be CPM schedules.
2. CPM schedules are required to assure adequate planning and execution of the work and in evaluating the progress of the work and the impact on the schedule events, which could affect the completion date.
3. The submitted CPM schedules shall clearly designate the Substantial Completion Date of the project. This is the date when the construction project or specified part thereof is sufficiently completed, in accordance with the Contract Documents, such that the project or specified part thereof can be used to accomplish the purposes for which it was intended.
4. Logic or network diagrams shall show the order and interdependence of activities and the sequence in which work is to be accomplished as planned by the Contractor. These diagrams must show how the start of a given activity is dependent on preceding activities and how its completion restricts the start of the following activities.
5. At a minimum, the following information shall be furnished for each work activity:
  - (i) Activity number
  - (ii) Description of activity
  - (iii) Activity numbers for any predecessor and successor activities
  - (iv) Relationships with preceding activities
  - (v) Activity duration in Calendar days
  - (vi) Percent of activity completed
  - (vii) Early start date (by calendar date)
  - (viii) Early finish date (by calendar date)
  - (ix) Actual start date (by calendar date)
  - (x) Actual finish date (by calendar date)
  - (xi) Float or slack (by calendar date)
6. The Monthly Progress Schedules and any required Recovery schedules shall show the activities or portion of the activities completed during the reporting period and their total dollar value as basis for the Contractor's periodic request for payment. For each activity, the update shall state the percentage of work actually completed and the progress along the critical path in terms of days ahead or behind the allowable dates.
7. The Monthly Progress Schedules and any required Recovery schedules shall include a comments section summarizing the updated analysis for the project as a whole, describing problems with work activities, and explaining proposed corrective actions.

8. Approved change orders shall be reflected as new activities or as change in logic and/or time framing of existing activities. They shall be shown on the updated schedule that immediately follows a receipt of a Change Order Approval from the County.

F. FORM OF SCHEDULE SUBMITTAL:

All schedules, including the Baseline Schedule, the Monthly Progress Schedules, and any required Recovery schedules shall be submitted in three paper copies and one copy on CD.

FORCE MAJEURE AND DAMAGES

- A. “Force Majeure” means, for the purposes of this Contract, an event arising from causes beyond the control of the Contractor and County which delays or prevents the performance of any obligation under this contract. Unanticipated or changed financial circumstances of the Contractor shall not, in any event, be considered a Force Majeure event.
- B. The Contractor shall file written notice to the County within fifteen (15) calendar days after the Force Majeure event is known or should have been known to the Contractor, whichever is earlier. The Contractor’s written notice shall include, but not be limited to, a description of the event and an explanation of the reasons for the delay, the anticipated duration of the delay, all actions taken or to be taken to prevent or mitigate the delay or the effect of the delay, the timetable by which those measures will be implemented, whether the Contractor claims that the delay should be excused as a Force Majeure event, and the Contractor’s rationale for attributing such delay to a Force Majeure event if the Contractor intends to assert a claim. Furthermore, the Contractor is required to state what steps are being taken to ensure completion and shall supply any and all documentation available to show what steps have already been taken. Contractor shall also comply with all other County statutes, regulations and requirements in connection with any such manner.
- C. If a delay of performance is, or was, caused, in the sole discretion of the County, by a Force Majeure event, the time for performance of the construction shall be extended for a period to compensate for the delay resulting from such event. Extensions of a completion date based on a particular event shall not automatically extend any other completion date under this Contract. The Contractor shall make a showing of proof by a preponderance of the evidence that the Force Majeure event was the cause of the delay in performance for each requirement or completion date for which an extension is sought. In the event of a dispute regarding application of this Special Provision to a delay in performance, the Contractor shall comply with all County statutes, regulations, and requirements and shall have the burden of proving by preponderance of the evidence that the delay is, or was, caused by a Force Majeure event, and that the amount of additional time requested is necessary to compensate for that event.

- D. The Contractor is also notified that copies of any reports, plans, permits, and documents related to this Contract shall be maintained for a period of 5 years from the date of Award.
- E. The Contractor understands that TIME IS OF THE ESSENCE UNDER THIS CONTRACT. In the event the Contractor fails to achieve Final Completion and Final Acceptance (as defined in the Specifications) as required by this Contract, then the Contractor shall pay the County the sum of Two Thousand Dollars (\$2,000.00) for each Calendar Day (day 1 through 30) after the expiration of the Contract Period; and Three Thousand Five Hundred Dollars (\$3,500.00) for each Calendar Day (day 31 through 60) after the expiration of the Contract Period; and Six Thousand Five Hundred Dollars (\$6,500.00) for each Calendar Day (day 61) and thereafter until the Contractor achieves Final Completion and Final Acceptance of the Project. The Contractor agrees that:
1. These Liquidated Damages are a reasonable estimate of the County's damages solely due to the public's loss of use of the Project during the delay period and are not a penalty.
  2. It is very difficult, if not impossible, to accurately measure the damages to the County due to the public loss of use of the Project during the delay period.
  3. Notwithstanding GP8.09 of the Baltimore County Standard Specifications for Construction, in addition to the damages due to the public's loss of use of the Project during the delay period, the County is likely to incur additional direct costs during the delay period, including but not limited to, costs for construction management, consultants, architectural services, office trailer and supplies, utilities, County employees' time, County vehicles, and such other costs that the County will incur to continue administration of the construction and the Contract during the delay period, all which will be monitored by the County, and if so required by the County, the Contractor shall pay such actual damages incurred during the delay period. THE PARTIES HERETO UNDERSTAND AND AGREE THAT CONTRACTOR'S OBLIGATION TO PAY THE COUNTY FOR ACTUAL DAMAGES DURING THE DELAY PERIOD SHALL BE IN ADDITION TO THE CONTRACTOR'S OBLIGATION TO PAY THE LIQUIDATED DAMAGES DUE TO THE PUBLIC'S LOSS OF USE OF THE PROJECT.
  4. The County shall have the right, but not the obligation, to deduct the Liquidated Damages due to the public's loss of use of the Project, and the County's actual costs and costs to continue administration of the construction and the Contract, from any monies due or any monies that may become due to the Contractor.

#### CONTINGENT PIPE REHABILITATION

There are two areas of contingent pipe rehabilitation work. The first contingent area consists of three pipe segments (40487-40486, 40486-39237, and 39237-39238) as shown on sheet C-1. Lining these segments is contingent upon receiving a signed ROE agreement from Park East Apartment Company. If an agreement cannot be made, these segments will be removed from the

contract. If an agreement can be made, these segments will be lined. All project specifications and notes shall apply to the contingent work shown on sheet C-1.

#### PROPERTY ACCESS

Completion of work for this project may require access to manholes located on private property. In all cases, the contractor is to contact the property owner prior to accessing private property. In some cases, vehicular access is not available and contractor will need to access manholes on foot.

# **BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS STANDARD REHABILITATION SPECIFICATIONS**

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### **Method of Submitting Information (Applicable to Submittals for All Phases)**

Initial submittals may be made electronically or as hard copies; the Contractor shall coordinate with the County's Project Engineer and Construction Inspection to determine the appropriate method of submittal. The Contractor is responsible for providing three hard copies of **all** final approved submittals **EXCEPT** for CCTV inspections and site videos; all videos shall be submitted electronically only. Electronic copies of small files (less than 10 MB) may be sent by email to addresses provided by the County's Project Engineer; larger electronic files shall be uploaded to the County's FTP site (<https://ftp.baltimorecountymd.gov>). Credentials for using the FTP site shall be provided by the County to the Contractor upon request.

### **Standard Contractor Submittals Required Within 10 Days After Award of Contract**

The following submittals, applicable to all sewer rehabilitation projects, are the minimum a contractor must submit within 10 contract days after award of contract. **Failure to comply with these requirements could result in the Director of Public Works proceeding with the annulment of the award and forfeiture of the Proposal Guarantee.** There could be additional submittals required, depending on each individual job.

- ☐ Baseline Schedule, Monthly Progress Schedules, and any required Recovery Schedules as outlined in Section GP-8.04, paragraph (2) through (6)
- ☐ Submit subcontractor(s) information, see Section 2731.01.13
- ☐ Submit Safety Plan, see Section 2731.01.14(i)(1)

Refer to Section 2731.01.15 for submittal requirements regarding the following:

- ☐ Pipe liner literature and data, see Section 2731.01.15(a)
- ☐ Supplier's letter of certification, see Section 2731.01.15(b)
- ☐ Independent test report, see Section 2731.01.15(c)
- ☐ Verification of Contractor liner license, see Section 2731.01.15(d)
- ☐ The manufacturer's certification, see Section 2731.01.15(e)
- ☐ Documentation of Contractor's experience, see Section 2731.01.15(f)
- ☐ Documentation of Product experience, see Section 2731.01.15(g)
- ☐ References for the project superintendent, see Section 2731.01.15(h)
- ☐ Report outlining the rehabilitation/replacement process, see Section 2731.01.15(i)
- ☐ Manufacturer's recommended cure method, see Section 2731.01.15(j)
- ☐ Crewmembers performing the lining, see Section 2731.01.15(k)
- ☐ Calculations for liner thicknesses, see Section 2731.01.15(l)
- ☐ Product Warranty and Certification Form, see Section 2731.01.15(m)
- ☐ Sample Written Notification for Residents, see Section 2731.01.15(n) and 2731.03.02 (b)

Refer to Section 2732.01.03 for submittal requirements regarding the following:

- ☐ Description of inversion process lubricant, see Section 2732.01.03(a)
- ☐ Certification of resin volume, see Section 2732.01.03(b)
- ☐ Certification regarding approval of resin dye, see Section 2732.01.03(c)
- ☐ Tensile Stress information, see Section 2732.01.03(d)
- ☐ Shop drawings and product data, see Section 2732.01.03(e)

- ☐ Description of proposed wet-out procedure, see Section 2732.01.03(f)
- ☐ Wet-out forms, see Section 2732.01.03(g)
- ☐ Tube stresses & elongation information, see Section 2732.01.03(h)
- ☐ Temperature monitoring system, see Section 2732.01.03(i)

Refer to Section 2733.01.03 for submittal requirements regarding the following:

- ☐ Certification documentation, see Section 2733.01.03(a)
- ☐ Certification regarding approval of resin dye, see Section 2733.01.03(b)
- ☐ Tensile Stress information, see Section 2733.01.03(c)
- ☐ Shop drawings and product data, see Section 2733.01.03(d)
- ☐ Description of the proposed wet-out procedure, see Section 2733.01.03(e)
- ☐ Tube stresses & elongation information, see Section 2733.01.03(f)
- ☐ Description of monitoring system, see Section 2733.01.03(g)

Refer to Section 2734.01.06 for submittal requirements regarding the following:

- ☐ Pipe bursting plan, see Section 2734.01.06(a)
- ☐ Bursting head vibrations measurements, see Section 2734.01.06(b)
- ☐ Approval(s) from private utility companies, see Section 2734.01.06(c)
- ☐ Verification of licensed installer, see Section 2734.01.06(e)
- ☐ Documentation of Contractor's experience, see Section 2734.01.06(f)
- ☐ Documentation of Product experience, see Section 2734.01.06(g)
- ☐ Logs verifying insertion rates and forces, see Section 2734.01.06(h)
- ☐ Product Warranty and Certification Form, see Section 2734.01.06(i)

Refer to Section 2737.01.10 for submittal requirements regarding the following:

- ☐ Shop drawings and product data, see Section 2737.01.10(a)
- ☐ Samples of all proposed materials, see Section 2737.01.10(b)
- ☐ Measurements verifying manhole information, see Section 2737.01.10(c)
- ☐ Manhole rehabilitation literature and data, see Section 2737.01.10(d)
- ☐ Supplier's letter of certification for installers, see Section 2737.01.10(e)
- ☐ Independent test report, see Section 2737.01.10(f)
- ☐ The manufacturer's certification, see Section 2737.01.10(g)
- ☐ Documentation of Contractor's experience, see Section 2737.01.10(h)
- ☐ Documentation of Product experience, see Section 2737.01.10(i)
- ☐ Proof of federal, state, or local permits or licenses, see Section 2737.01.10(j)
- ☐ Calculations for liner/wall coverage thicknesses, see Section 2737.01.10(k)
- ☐ Manhole Patching Mix, see Section 2737.01.10(l)
- ☐ Manhole Infiltration Control Mix, see Section 2737.01.10(m)

- ☐ Manhole Sealer, see Section 2737.01.10(n)
- ☐ Manhole Cementitious or Epoxy Liner, see Section 2737.01.10(o)
- ☐ Internal and External Manhole Frame Seals, see Section 2737.01.10(p)
- ☐ Manhole Frame and Cover, see Section 2737.01.10(q)
- ☐ Manhole Inserts, see Section 2737.01.10(r)
- ☐ Product Warranty and Certification Form, see Section 2737.01.10(s)

Refer to Section 2738.01.03 for submittal requirements regarding the following:

- ☐ Chemical Grouting Materials, see Section 2738.01.03(a)
- ☐ Chemical Root Inhibitor, see Section 2738.01.03(b)
- ☐ Proof of experience conducting method to be used, see Section 2738.01.03 (c)
- ☐ Notice of proposed testing schedules/procedures, see Section 2738.01.03 (d)
- ☐ Verification of approved installer, see Section 2738.01.03 (e)
- ☐ Certificates of training, see Section 2738.01.03 (f)
- ☐ Manufacturer's Safety Data Sheets, see Section 2738.01.03 (g)
- ☐ Manufacturer's certification & material information, see Section 2738.01.03 (h)
- ☐ Manufacturer's recommended procedures, see Section 2738.01.03 (i)
- ☐ Product Warranty and Certification Form, see Section 2738.01.03 (j)

Refer to Section 2740.01.04 for submittal requirements regarding the following:

- ☐ Bypass pumping schedule, see Section 2740.01.04(a)
- ☐ Drawings showing staging and access locations, see Section 2740.01.04(b)
- ☐ Bypass pump information, see Section 2740.01.04(c)
- ☐ Calculations – static lift/friction losses/flow velocity, see Section 2740.01.04(e)
- ☐ Road crossing details, see Section 2740.01.04(f)
- ☐ Sewer plugging methods, see Section 2740.01.04(g)
- ☐ Suction and discharge piping information, see Section 2740.01.04(h)
- ☐ Sections – suction and discharge pipe depth, see Section 2740.01.04(i)
- ☐ Method of noise control, see Section 2740.01.04(j)
- ☐ Standby power generator size and location, see Section 2740.01.04(k)
- ☐ Downstream discharging plan, see Section 2740.01.04(l)
- ☐ Methods of protecting manholes/structures, see Section 2740.01.04(m)
- ☐ Restraining lengths for piping, see Section 2740.01.04(n)
- ☐ Temporary pipe supports and anchoring, see Section 2740.01.04(o)
- ☐ Location of fuel tank(s), see Section 2740.01.04(p)
- ☐ Reliability methods, see Section 2740.01.04(q)
- ☐ Overflow Prevention, Contaminant & Cleanup Plan, see Section 2740.01.04(r)



- ☐ Procedures to monitor upstream mains, see Section 2740.01.04(s)
- ☐ Pumping setup & breakdown operations procedures, see Section 2740.01.04(t)
- ☐ Emergency plan, see Section 2740.01.04(u)

Refer to Section 2741.01.06 for submittal requirements regarding the following:

- ☐ Submit disposal plan, see Section 2741.01.06

Refer to Section 2742.01.03 for submittal requirements regarding the following:

- ☐ Submit sample of previous TV work, see Section 2742.01.03(b)
- ☐ Submit PACP Operator Certification, see Section 2742.01.03(d)

Refer to Section 2743.01 for submittal requirements regarding the following:

- ☐ Product Experience documentation, see Section 2743.01.05
- ☐ Contractor Experience documentation, see Section 2743.01.06
- ☐ Description of lubricant, see Section 2743.01.07(a)
- ☐ Certification of resin volume, see Section 2743.01.07(b)
- ☐ Certification regarding approval of resin dye, see Section 2743.01.07(c)
- ☐ Tensile Stress information, see Section 2743.01.07(d)
- ☐ Product Warranty and Certification Form, see Section 2743.01.07(e)

Refer to Section 2751.01.03 for submittal requirements regarding the following:

- ☐ Shop drawings & product data, see Section 2751.01.03(a)
- ☐ Schedule of anticipated duration of service interruptions, see Section 2751.01.03(b)
- ☐ Product Warranty and Certification Form, see Section 2751.01.03(c)

Refer to Section 2752 for submittal requirements regarding the following:

- ☐ Infrared spectrum for proposed resin, see Section 2752.01.03(a)
- ☐ Confirmation of the resins meeting ASTM D5813, see Section 2752.01.03(a)
- ☐ Certification of resin volume, see Section 2752.01.03(b)
- ☐ Certification regarding approval of resin dye, see Section 2752.01.03(c)
- ☐ Tensile Stress information, see Section 2752.01.03(d)
- ☐ Documentation of Installer's Experience, see Section 2752.01.03(e)
- ☐ Documentation of Manufacturer's Experience, see Section 2752.01.03(f)
- ☐ Product Warranty and Certification Form, see Section 2752.01.03(h)
- ☐ Submit design method, see Section 2752.02.03(b).

## Contractor Submittals Required Following Notice to Proceed

The following submittals, applicable to all sewer rehabilitation projects, are the minimum a contractor must submit *following* notice to proceed. There could be additional submittals required, depending on each individual job.

Refer to Section 1380 for submittal requirements regarding the following:

- ☐ Pre-construction video

Refer to Section 2731.01.16 for submittal requirements regarding the following:

- ☐ Verified pipe length and diameter measurements, see Section 2731.01.16(a)
- ☐ Infrared spectrograph chemical fingerprint, see Section 2731.01.16(b)(1)
- ☐ Shipping Manifest, see Section 2731.01.16(b)(2)
- ☐ Product manufacturer's QA/QC information, see Section 2731.01.16(c)
- ☐ Procedure for disposal of any superheated water, see Section 2731.01.16(d)
- ☐ Hydrophilic waterstop, see Section 2731.01.16(e)
- ☐ Samples of the liner material, see Section 2731.01.16(f)

Refer to Section 2732.01.04 for submittal requirements regarding the following:

- ☐ Liner documentation, see Section 2732.01.04(a)
- ☐ Product Warranty and Certification Form, see Section 2732.01.04(c)

Refer to Section 2733.01.04 for submittal requirements regarding the following:

- ☐ Operations protocol, see Section 2733.01.04(c)
- ☐ Product Warranty and Certification Form, see Section 2733.01.04(d)

Refer to Section 2734.03.01 for submittal requirements regarding the following:

- ☐ Submit the list of structures/residences to be inspected, see Section 2734.03.01(h)(2)
- ☐ Submit report for each surveyed structure, see Section 2734.03.01(h)(2)iii

Refer to Section 2737.03.10 for submittal requirements regarding the following:

- ☐ Submit repair method for damaged manhole, see Section 2737.03.10(l)

Refer to Section 2738 for submittal requirements regarding the following:

- ☐ Submit equipment list, see Section 2738.02.01(a)
- ☐ Submit mixtures (and quantities) for gel/foam, see Section 2738.02.06(f)
- ☐ Submit Incident Report as needed, see Section 2738.03.01(a)
- ☐ Submit video of line cleaning operations, see Section 2738.03.02(c)
- ☐ Submit video of sealing operation, see Section 2738.03.04(g)(9)
- ☐ Submit records for completed sewer sections/service connects, see Section 2738.03.10(a)

Refer to Section 2740 for submittal requirements regarding the following:

- ☐ Submit Incident Report as needed, see Section 2740.01.03(c)

Refer to Section 2741 for submittal requirements regarding the following:

- ☐ Submit Incident Report as needed, see Section 2741.03.02(c)

Refer to Section 2742 for submittal requirements regarding the following:

- ☐ Submit two copies of the DVDs, database, and inspection logs, see Section 2742.02.03(a)
- ☐ Resubmit previous poor quality video, see Section 2742.03.02(a)(14)

Refer to Section 2744.01.11 for submittal requirements regarding the following:

- ☐ Detailed plan for point repairs, see Section 2744.01.11(a)
- ☐ Pipe material and fittings, see Section 2744.01.11(b)
- ☐ Bedding and backfill material, see Section 2744.01.11(c)
- ☐ Sewage flow bypass plan, see Section 2744.01.11(d)

### **Contractor Submittals Required Prior to Final Payment**

The following submittals applicable to all sewer rehabilitation projects are the minimum a contractor must submit *prior* to final payment. Final payment will not be issued until all of the listed information has been reviewed and approved by the County.

Refer to Section 2731.01.17 for submittal requirements regarding the following:

- ☐ The curing log of temperatures, see Section 2731.01.17(a)
- ☐ Testing results for materials, see Section 2731.01.17(b)
- ☐ Two complete sets of DVDs, see Section 2731.01.17(c)
- ☐ Post Installation, see Section 2731.01.17(d)

Refer to Section 2732 for submittal requirements regarding the following:

- ☐ CIPP liner curing reports, see Section 2732.01.04(b)
- ☐ Submit curing log of CIPP temperatures, see Section 2732.03.01(o)
- ☐ Submit laboratory information, see Section 2732.03.02(d)
- ☐ Submit laboratory results, see Section 2732.03.02(j)

Refer to Section 2733.03.04 for submittal requirements regarding the following:

- ☐ Wet-out forms, see Section 2733.01.04(a)
- ☐ Curing reports, see Section 2733.01.04(b)
- ☐ Submit laboratory information, see Section 2733.03.04(c)
- ☐ Submit laboratory results, see Section 2733.03.04(i)

Refer to Section 2734 for submittal requirements regarding the following:

- ☐ Submit post televising of completed sections, see Section 2734.03.04(b)

Refer to Section 2737 for submittal requirements regarding the following:

- ☐ Submit negative air pressure, exfiltration, and/or discontinuity test results, see Section 2737.03.22(a)
- ☐ Submit alternate water tightness test method, see Section 2737.03.23

Refer to Section 2738.01.04 for submittal requirements regarding the following:

- ☐ Records of all test results performed, see Section 2738.01.04(a)
- ☐ Electronic files of CCTV inspections for joint and/or service connection, see Section 2738.01.04(b)

Refer to Section 2742.03.03 for submittal requirements regarding the following:

- ☐ Submit post-installation TV inspection DVDs, see Section 2742.03.03(a)(1)
- ☐ Submit Television Inspection Logs, see Section 2742.03.03(a)(3) and 2742.03.04(a)(3)
- ☐ Submit Digital Photographs, see Section 2742.03.03(a)(5) and 2742.03.04(a)(5)
- ☐ Submit Final Acceptance TV inspection DVDs, see Section 2742.03.04(a)(1)

### **Warranty**

- ☐ Submit shop drawing for method of repair, see Section 2743.03.06

## SECTION 1380

### PRECONSTRUCTION VIDEO

#### 1380.01 DESCRIPTION

**1380.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

#### 1380.01.02 Description of Work.

- (a) The Work of this Section includes, but is not limited to, Preconstruction Video consisting of color recording, with audio description, of surface features along the entire length of the project. Recording includes all work areas, easements, and storage areas and all access roadways, and, prior to audio-video-recording, visual investigation of all areas to be inventoried with notations made to items not readily visible by recording methods including, but not limited to, size, type and condition of roadway, driveway, culverts, headwalls, etc. Audio-video-recording shall be done prior to commencement of the construction or delivery of any equipment, material, or supplies to the site of Work.
- (b) The purpose of the color audio-video-recording of the project is to provide the necessary information for restoration of surface features after completion of the project. This recording must, therefore, cover the project area in its entirety to assist in replacing those areas affected by construction to their original condition with as little controversy as possible. Video-recording shall be performed no more than two (2) weeks prior to construction in the area, and any areas taped more than two (2) weeks prior to the construction shall be redone at no additional cost to the County.
- (c) Special attention must be given to recording existing home/residential areas to ensure adequate recording of pre-existing conditions. Uploaded video file to the FTP site must be approved by the Baltimore County Department of Public Works and Transportation prior to the beginning of any cleaning, inspection, and/or construction work.

**1380.01.03 Qualifications.** Color audio-video-recording must be compiled by a competent videographer actively engaged in color-video recordings of similar type projects for municipal agencies.

#### 1380.01.04 Ownership of Video Files.

- (a) All video files produced and uploaded to the FTP site will become the permanent property of the County when submitted to the Engineer. The Contractor shall upload all video files to the County's FTP site prior to the beginning of any construction Work.

- (b) Any portion of the video coverage deemed unacceptable by the County must be re-televised by the Contractor at no additional cost to the County, prior to the beginning of any construction Work.

## 1380.02 MATERIALS

**1380.02.01 Electronic Requirements.** All video-recording shall be provided to the County via the FTP site and meet the requirements of the General Provisions, including the submittal to the Engineer via a digital media approved by the County.

## 1380.03 CONSTRUCTION REQUIREMENTS

### 1380.03.01 Coverage of Recording.

- (a) The area to be video-recorded shall include, but not be limited to, all existing driveways, sidewalks, curbs, ditches, streets, landscaping, trees, culverts, catch basins, headwalls, retaining walls, fences, visible utilities including telephone and electrical poles with any overhead lines crossing the site, and all buildings located within the zone of influence of construction. Of particular concern are any existing faults, fractures, defects, or other imperfections exhibited by the above-mentioned surface features. Audio description shall be made simultaneously with and support the video coverage.
  - (1) **Streets.** Streets shall be recorded from the travel lane adjacent to the work areas where the sewer is located and runs along one side of the street except where specifically noted otherwise by the County.
  - (2) **Easement Areas.** Easement areas shall be recorded for the full width of the permanent and temporary easements and all other adjacent areas lying within the zone of influence of "SURFACE" construction as directed by County. The size and locations of all easements to be video recorded shall be shown on the plans or otherwise supplied by the County.
  - (3) **Access Ways and/or Routes.** Any access ways and/or routes, regardless of whether they are located within a right-of-way or not, shall be recorded for the full width of the access way and/or route and all other adjacent areas lying within the zone of influence of "SURFACE" construction as directed by County. The size and locations of all ways and routes to be video recorded shall be shown on the plans or otherwise supplied by the County.
  - (4) **Building Exteriors.** The Contractor shall video record all exterior surfaces of buildings specifically identified by the County to receive such coverage. At a minimum, any structure or building shall be video-recorded if located above the sewer and within any permanent easement. Buildings so identified may include houses, apartments, factories, warehouses, retail stores and other structures. Exterior building coverage shall include, but not be

limited to, walls, visible foundations, chimney, porches, carports, and trim.

**1380.03.02 Location Information.**

- (a) All video files shall be properly identified by video file number, location and project name in a manner acceptable to the County.
- (b) A record of the contents of each video file shall be supplied on a run sheet identifying each segment in the video files by location, i.e., street or easement number and viewing direction, traveling direction, sewer stationing, and all referenced by video file counter numbers and date.
- (c) A brief report and inventory of all video files completed, referenced by location and video file number/designation, shall be furnished to the County upon completion of the Work and uploaded to the FTP site.
- (d) All video recordings shall begin with the date and time of recording, the project name, the sheet numbers or engineering stationing as shown on the Plans, the name of the street, easement number or building address being taped, the direction of travel, and the viewing side.
- (e) Houses and buildings shall be identified visually by house or building number, when possible, in such a manner that the progress of the recording and the proposed system may be located by reference to the houses and buildings.
- (f) Unless an alternate format is proposed by the Contractor and approved by the County, the Contractor shall provide the following information, in the format specified. The engineering stationing numbers must be continuous and correspond to the project sewer stationing and include the standard engineering symbols. This information must appear in the lower half of the viewing screen. Below the engineering stationing shall appear the name of the project, name of the area covered, direction of travel, viewing side, date, time, etc.
- (g) In easements, local landmarks on the route or other recognizable features off to the side of the sewer routes shall be visually and audibly noted at frequent intervals to identify the camera location.

**1380.03.03 Entering Property.** If it becomes necessary to enter onto private property, the Contractor shall notify the owner of such property at least 24 hours in advance of the planned entry to obtain his permission to do so. Should the owner of the property refuse to give permission for said entry, the Contractor shall notify the County. The Contractor is advised that they shall not enter any private property before permission is granted to do so or the County notifies the Contractor that they have gained the legal right to do so. The Contractor shall be held liable for entry made other than stated above. The Contractor shall, at their own expense, repair or restore any areas damaged during the Work of this Item.

**1380.03.04 Site Recording Conditions.**

- (a) All recording shall be done during times of good visibility. No outside recording shall be done during periods of visible precipitation or when the ground area is covered with snow, leaves, or debris unless otherwise authorized by the County.
- (b) In order to produce the proper detail and perspective, adequate auxiliary lighting will be required to fill in shadow areas caused by trees, utility poles, road signs, and other such objects, as well as other conditions requiring artificial illumination.
- (c) The average rate of speed in the general direction of travel of the conveyance used during recording shall not exceed 48 feet per minute. Panning rates and zoom-in/zoom-out rates shall be controlled sufficiently such that playback will produce adequate clarity of the objects being viewed.
- (d) When conventional wheeled vehicles are used as conveyance for recording, the distance from the camera lens to the ground shall not be less than 8 feet to insure proper perspective. In instances where coverage will be required in areas not accessible to conventional wheeled vehicles, such coverage shall be obtained by walking or by special conveyance approved by the County, but with the same requirements for DVD quality and content as specified herein except as may be specifically exempted by the County.

**1380.04 MEASUREMENT AND PAYMENT.** This item will not be measured.

- (a) **Basis of Payment.** Payment for the preconstruction video file, will be included in the prices bid for items in the proposal and as defined in these Specifications.

END OF SECTION



## SECTION 1700

### COMPLETION, CLEANUP AND GUARANTEE

#### 1700.01 DESCRIPTION

**1700.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**1700.01.02 Description.** The work will include the cleanup, restabilization, restoration and disposal to maintain a safe and well-kept job site and properly repair disturbed areas of the site to a condition acceptable to the County during and upon completion of the project. The Contractor shall furnish all labor, materials, equipment and supplies to perform all work herein described.

**1700.02 MATERIALS** - Not Used.

#### 1700.03 CONSTRUCTION REQUIREMENTS

##### 1700.03.01 Site Restoration.

- (a) The Contractor shall restore all surfaces removed, damaged, or disturbed by his operations to the condition in which they existed prior to the commencement of the work, except as otherwise noted.
- (b) Pipe drains, headwalls, catch basins, and all incidental drainage structures shall be restored using like materials and details.
- (c) Grassed surfaces shall be restored to pre-construction conditions by sodding or seeding.
- (d) All drainage ditches shall be restored to their existing grade line and cross section. When grading operations begin, remove conflicting facilities and store in manner to keep them clean and in existing condition.
- (e) All pavement, walks, curb and gutter, and entrances removed or damaged by the Contractor shall be replaced to equal or better conditions.
- (f) Gravel surfaces and roadway shoulders shall be restored to their pre-construction (or better) condition. Do not reuse shoulder material if contaminated by foreign material. Replace with new material of same quality and gradation. Follow jurisdictional requirements and applicable permits secured for this Contract. The Contractor shall also restore surface areas adjacent to shoulders, if left unstable by construction, with stabilized gravel or other acceptable stabilizing material.
- (g) The Contractor shall disassemble and remove all temporary construction facilities.

- (h) All public and private signs, markers, guardrails, and fences shall be preserved and maintained in existing locations and condition unless written permission is obtained for removal and restoration or replacement.
- (i) The Contractor shall repair or replace damaged items when directed, at no cost to the County.

**1700.03.02 Cleanup During and on Completion of Project.**

- (a) The Contractor shall, on a continuous basis throughout the course of the project, provide cleanup and restoration of lawns, streets, drainage facilities, and adjacent properties within the project limits. All trash, debris, and other foreign matter shall be disposed of in accordance with the specifications herein.
- (b) On completion of the work covered by any of the sections of this project, the Contractor for said section shall cleanup the entire premises occupied by his operations. This area shall be left neat and clean of trash, debris, piles of earth, waste materials or equipment. All surplus materials and equipment, trash, debris, and other foreign matter shall be properly disposed of. The entire project or sections thereof shall be made ready for the County's use, and the Contractor shall assist as may be necessary in placing any equipment furnished under the Contractor's Contract in proper operating condition.

**1700.03.03 Guarantee.**

- (a) The Contractor shall deliver the work to the County complete and in first class condition in every respect, and shall guarantee the material and workmanship for a period of two (2) years from the time the construction is completed, unless a longer period is specified in another section of these specifications.
- (b) If, during the specified time, any defects show up due to defective material and/or equipment negligence, or want of proper care on the part of the Contractor, the Contractor shall furnish such new materials as are necessary, and repair said defects and put the work in proper order at his own expense on receipt of notice from the County. The Contractor warrants and guarantees that the completed work is free from defects that shall include, but not necessarily be limited to the following:
  - (1) Against all faulty or imperfect materials and equipment, subsidence of backfills, fills and embankments, vegetation stabilization, and against all imperfect, careless and/or unskilled workmanship.
  - (2) That the structures shall be watertight and leak proof at every point and in every joint.

- (3) No use or acceptance by the County of the work or any part thereof, nor any failure to use same, nor any repairs, adjustments, replacements, or corrections made by the County due to the Contractor's failure to comply with any of his obligations under the Contract Documents, or other corrections made by the County shall impair in any way the guarantee obligations assumed by the Contractor under these Contract Documents.
- (c) The Contractor shall promptly make such corrections as may be necessary by reason of such defects in 1700.03.03(b) including the repairs of any damage to other parts of the work resulting from such defects and agrees to replace with proper workmanship, materials, equipment, and re-execute, correct, or repair without cost to the County, any work which may be found to be improper or imperfect and/or which does not operate in a satisfactory manner and fails to perform as specified, or in any other way does not conform to the Contract Documents, unless such damage is the direct result of negligence on the part of County personnel, or fair wear and tear. The County will give notice of observed defects with reasonable promptness. In the event that the Contractor fails to make such repairs, adjustments, or other work that may be made necessary by such defects, the County may do so and charge the Contractor the cost thereby incurred.
- (d) The guarantee provisions specified herein shall not limit the County's right to recover damages for the Contractor's refusal to repair defective work after the expiration of the guarantee provisions specified herein.
- (e) Included in this Contract is an express duty for the Contractor to complete a reinspection of all line sections which have undergone rehabilitation or replacement. This work item will be initiated by the County at their discretion, within the two (2) year time period, after the completion of the work. THIS INFORMATION WILL BE USED TO DETERMINE GUARANTEE COMPLIANCE. Internal inspection will be completed as described in Section 2742, Television Inspection. This reinspection is in addition to the Post-Installation and Final Acceptance TV inspections completed for the project.
- (f) Included in this Contract is an express duty for the Contractor to complete a retesting of 5% to 10% of joints, defects, and/or sewer house connections which been air tested, including both those that passed air tests and those that failed initial air tests and were grouted. This work item will be initiated by the County at their discretion, within the two (2) year time period, after the completion of the work. THIS INFORMATION WILL BE USED TO DETERMINE GUARANTEE COMPLIANCE. Testing will be as described in Section 2738, Sanitary Sewer Pipe Joint and Service Connection Testing and Grouting.

**1700.04 MEASUREMENT AND PAYMENT.** This item will not be measured.

- (a) **Basis of Payment.** Payment for completion, cleanup and guarantee will be included in the prices bid for items in the proposal and as defined in these Specifications.

END OF SECTION

## SECTION 2731

### PIPE REHABILITATION - GENERAL REQUIREMENTS

#### 2731.01 DESCRIPTION

**2731.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2731.01.02 Description of Work.** These specifications include requirements for all design, materials, transportation, equipment and labor necessary to rehabilitate deteriorated sections of sewer listed in the Contract Documents. This specification is intended to identify the minimum requirements of the County.

**2731.01.03** This Section shall supplement and amend the Baltimore County Department of Public Works Standard Specifications, and Maryland State Highway Administration Standards and cover the materials and methods of application for the rehabilitation of existing pipelines through the use of the Cured-in-Place and/or Pulled-in-Place technologies.

**2731.01.04** The Contractor shall furnish all material, labor and special equipment required to accomplish the work in accordance with these specifications. The installation shall affect the complete interior relining of the existing sanitary sewer piping and shall result in a smooth, hard, strong and chemically inert interior finish, and closely following the contours of the existing piping. The Contractor shall provide a completed watertight system with mainline sewer and all active lateral connections in operational condition.

**2731.01.05 Sequencing:** Lateral repairs, including reconnection/replacement, identified in the contract documents shall be completed prior to rehabilitation of the main sewer line.

**2731.01.06** The Contractor shall perform all required permanent landscape restoration and site restoration of disturbed areas on private property and within County rights-of-way upon completion of pipe rehabilitation, to the satisfaction of the County.

**2731.01.07** The Contractor shall be responsible for all work pertaining to the abandonment and/or removal of existing manholes and sewer lines, as shown or specified by the County.

**2731.01.08** The Contractor shall obey applicable environmental regulatory requirements.

**2731.01.09** For any ASTM standard referenced, the Contractor shall use the most current active version. If requested by the County, the Contractor shall provide a copy of the current ASTM standard.

#### **2731.01.10 Contractor Experience.**

- (a) The prospective Contractor must be approved, in writing, by the County prior to the award of contract. The Contractor shall provide any

information or documentation, which the County may require as proof of the Contractor's competency to perform work of the type herein specified.

- (b) The Contractor for the pipe rehabilitation of sewers must have a minimum of three years experience using the proposed product and have installed at least 50,000 linear feet of the proposed product. All workers performing work on the pipe rehabilitation of sewer must be certified by the pipe rehabilitation system supplier as qualified to perform work with the proposed product and method.
- (c) The superintendent for the job must have supervised jobs in which at least 50,000 feet of pipe has been rehabilitated using the product and method proposed in the bid. The superintendent for the job shall be on-site during all phases of the work involving the insertion and processing of the liner pipe. The superintendent must be an employee of the lining contractor.
- (d) The Contractor shall be licensed by the liner process manufacturer.

**2731.01.11** Product Experience. The product proposed for the pipe rehabilitation of sewers must have been in use for at least three years in this country, and a minimum of 60,000 linear feet of the product must have been installed to date in this country.

**2731.01.12** **Water Use.** Potable water to be used for pipe lining and cleaning processes may be obtained from the County fire hydrants. The Contractor shall be responsible for obtaining all necessary fire hydrant permits. No water shall be drawn from a public fire hydrant except through a Baltimore County issued water meter. *Applications are made through the Bureau of Utilities Fullerton Complex 4421 Bucks Schoolhouse Road, Suite 100, Baltimore, Maryland 21237 email: [utilities@baltimorecountymd.gov](mailto:utilities@baltimorecountymd.gov) Phone: 410-887-1885 Fax: 410-887-1886.* A deposit is required for the meter. The Contractor shall provide all piping, hoses, valves, or connections necessary to complete the work. All vehicles involved with water use operations shall be inspected by the Bureau of Utilities. The Contractor shall install a backflow device either on the hydrant or downstream of the meter. Access to fire hydrants for the purpose of fire protection shall be maintained at all times.

**2731.01.13** **Access.** The Contractor is not permitted to cross private property without authorization from both the affected property owner and the County. The rehabilitation system used must be capable of being installed through existing manholes. Excavation will be allowed for the replacement of individual services and if the County directs that point repairs be made to the main line. All work for this project shall be confined to the public right-of-way areas and easements as shown on the plans. The Contractor shall obtain written permission from individual homeowners prior to accessing the sewer system across private property. Proof of written permission shall be supplied to the County upon request.

**2731.01.14** **Subcontractors.** Not more than fifty (50) percent of the work (total bid amount) shall be subcontracted. The Contractor shall submit the subcontractor(s) name(s), contact information, and proposed percentage of work (as a percentage of the total bid amount) to the County prior to the notice to proceed.

**2731.01.15 Safety.**

- (a) Contractor shall ensure public safety and worker safety during progress of the rehabilitation work.
- (b) Contractor shall use employees who are properly trained and who are aware of possible work, materials, and job site related hazards.
- (c) It shall be the responsibility of the Contractor to provide adequate measures to protect pedestrian and vehicular traffic on streets. Signals and barricades shall conform to requirements of federal, state and local laws, rules, regulations, precautions, orders and decrees.
- (d) Contractor shall report to the County any condition that may pose a threat to the health and welfare of the project inspectors, contractor's employees, or the general public.
- (e) Provide proper ventilation and personal protective equipment as required to ensure worker safety. Perform work in adherence to statutes of appropriate local, state, and federal health and labor laws, including OSHA confined space entry requirements.
- (f) Contractor shall have available on the job-site current manufacturer's Material Safety Data Sheets.
- (g) Contractor shall keep the working area clean, safe, appropriately barricaded, and properly lighted.
- (h) The Contractor shall conduct operations in accordance with applicable OSHA standards, including those safety requirements involving entry into a confined space. Make suitable precautions to eliminate hazards to personnel near construction activities.
- (i) The following plans shall be on-site for the duration of the project and be made available to County personnel as requested:
  - (1) Safety Plan: The Safety Plan shall identify all competent persons, a description of the daily safety program for the job site, and all emergency procedures to be implemented in the event of a safety incident. All work shall be conducted in accordance with the Contractor's submitted Safety Plan.
  - (2) Emergency Plan: The Emergency Plan shall detail procedures to be followed in event of health and safety emergencies, pump failures, overspray, chemical spills, sewer overflows, service backups, and sewage spillage. Address dangers associated with sewer rehabilitation work (i.e. working with large boiler trucks).
  - (3) Health and Safety Plan: The Health and Safety Plan shall identify a health and safety officer (i.e. crew chief) responsible for providing health and safety oversight of personnel participating

on the project team, performing and documenting routine work area inspections, conducting safety meetings, and providing safety orientations for team members.

- (4) Equipment: The Contractor shall maintain a list of critical rehabilitation equipment to be inspected on a daily basis. Monthly maintenance logs and noise attenuation logs shall also be maintained.
- (5) Odor Control Plan: The Contractor shall develop an odor control plan that will ensure that project specific odors will be minimized at the project site and surrounding area.

#### **2731.01.16 Submittals.**

The Contractor shall have ten (10) contract days after the date of award to submit the following information to the County for review and approval. Failure to do so may be grounds for termination of contract.

- (a) Manufacturer's published literature and published data for the proposed pipe liner systems, including MSDS sheets for all materials.
- (b) The pipe rehabilitation system supplier's letter of certification for the workers who will perform pipe rehabilitation work. The workers must have completed training in handling, insertion, trimming, reinstatement of laterals, and finishing pipe liner.
- (c) Independent test report showing that the physical properties and chemical resistance of the proposed pipe system meet the respective ASTM requirements, requirements of these specifications, and the requirements published in the manufacturer's literature.
- (d) Written verification confirming that the Contractor is licensed by the liner process manufacturer.
- (e) The manufacturer's certification that the proposed pipe system for the project meets the respective ASTM requirements, requirements of these specifications, and will meet or exceed the physical properties given in the manufacturer's published literature submitted as required by Part (a) of this subsection.
- (f) Documentation of Contractor's experience. This shall include references for all jobs within the last three years that were either completed or under construction using the proposed rehabilitation product and method. References for a minimum of ten jobs shall be provided. The jobs submitted shall show that the contractor has installed at least 50,000 linear feet of the proposed product. Information provided shall include a description of the job (including rehabilitation product and method used and related diameters and footages), the location of the job, the value of the job, and the Owner's contact for the job including name, title, address, and phone number.



- (g) Documentation of Product experience. This shall include references for jobs completed with the proposed pipe rehabilitation product and method. The jobs submitted shall show that at least 60,000 linear feet of the product, using the proposed method, has been installed by the Contractor or other Contractors. The documentation shall include at least ten jobs which have been completed, preferably within the last two years. Information provided for each job shall include a description of the job (including rehabilitation product and method used and related diameters and footages), the location of the job, the value of the job, the Owner, and the contact for the job including name, title, address, and phone number.
- (h) References for the project superintendent documenting experience as required by these specifications. If a change in superintendent is made prior to or during construction, the Contractor shall provide references documenting experience as required by these specifications, for the County's review and approval.
- (i) A report outlining the process and product to be used in the rehabilitation and/or replacement of the sewer line. The report shall also include information specific to the job, such as a project schedule, coordination issues, access, set-up locations, timing, manufacturer's installation instructions (including recommended procedures for curing, handling, and storing), traffic control, maintaining service to customers, and flow control. This report shall describe the methods that will be taken to avoid liner stoppage due to conflict and friction with manhole entrances and bends into pipe entrances. The Contractor shall document plans for dealing with liner that is stopped by snagging within pipe. The Contractor shall submit two copies of this report: one for the County Engineering Department and one for the County Inspector.
- (j) Manufacturer's recommended cure method for each diameter and thickness of liner to be installed. Include curing procedures detailing the curing medium and the method of application.
- (k) Letter identifying the crew members performing the lining. If any of the crew members are not identified on the original certification letter received during the pre-qualification process, then a new certification letter listing the crew member(s) must be received from the rehabilitation system supplier prior to initiation of the work.
- (l) Calculations supporting recommended liner thicknesses, assuming a fully deteriorated host pipe condition, based on ASTM F1216. The data shall include both the sealed calculated thicknesses and the thicknesses proposed to be installed. Upon review and approval by the County, the proposed installed thicknesses will be considered the contracted design thicknesses. The thickness test results, addressed in this Specification, will be compared against these proposed installed thicknesses, not the minimum design thicknesses. The calculations shall be sealed by a registered Professional Engineer and an executed copy of the following form shall be provided:

### Professional Engineer Certification Form

*The undersigned hereby certifies that he/she is a Professional Engineer registered in the State of Maryland and that he/she is employed by:*

\_\_\_\_\_  
(Name of Contractor)

*to design the required liner segments. The undersigned further certifies that he/she has performed the design of the specified liner diameters and thicknesses and that the design is in conformance with all applicable local, state, and federal codes, rules, and regulations. It is further certified that the signature and Professional Engineer stamp will be affixed to all calculations and drawings used in, and resulting from the design.*

*The undersigned hereby agrees to make all original design drawings and calculations available to the Owner within seven (7) days following the Owner's request.*

*Professional Engineer Stamp*

\_\_\_\_\_

By \_\_\_\_\_

- (m) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the rehabilitative product manufacturer(s), manufacturer's representative or vendor as well as the Cured-In-Place Pipe (CIPP) liner installer certifying that the product(s) they are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.
- (n) Sample of the written resident notification that is to be provided to affected homes and businesses in accordance with Section 2731.03.02 (b).

**PRODUCT WARRANTY AND CERTIFICATION FORM**

REFERENCE (PROJECT NAME AND CONTRACT NUMBER):-  
\_\_\_\_\_

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE REHABILITATION PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

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

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

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

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

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

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

**2731.01.17 Submittals – Following the Notice to Proceed** the Contractor shall submit the information listed below for review and approval. These items may be submitted prior to the notice to proceed for review and approval. Once the notice to proceed is issued, contract days will start being counted, regardless of the submittal status. It is, therefore, in the Contractor's best interest to provide complete submittals in a timely and organized manner. The Contractor shall also make every effort to submit all submittals within each grouping (i.e. Pipeline Liner submittals, Manhole Lining submittals, Flow Control submittals, etc.). In addition, the County will review up to two submittals for each item. The Contractor shall not commence construction activities (i.e., point repairs, mainline lining, and manhole lining) until all of the listed information has been reviewed and approved by the County. Mark all submittals with mainline pipe identification number, work order number, Contract number, Contractor's name, operator's name, and date of test readings, if applicable.

(a) All measurements made by the Contractor to verify length, ovality, and diameter of host pipe prior to ordering of material. These submitted measurements will be considered final. If measurements are revised just prior to or at the time of the liner installation, the Contractor is responsible for any related expenses to accommodate the measurements and ensure a liner and installation in accordance with these Specifications, at no additional expense to the County. Material includes all material used in the manufacture of the liner system, including at minimum, as applicable, the resin and fabric tube. The measurements shall be submitted a minimum of seven days prior to each liner installation.

(b) Documentation:

(1) Infrared spectrograph chemical fingerprint and Certificate of Analysis for each lot of material:

Lot number  
 Product name  
 Manufacturer  
 Brookfield Viscosity  
 Thix Index  
 Gel time at cure temperature  
 Peak temperature for failure  
 Percent of non-volatile solids  
 Specific Gravity  
 Catalyzed Stability time at optimum temperature  
 Catalyst to resin ratio  
 Analysis signature  
 Date tested  
 Batch ticket for each resin-catalyst-colorant batch made up and impregnated into felt liner material.

(2) Shipping Manifest:

Date shipped  
 Origination and delivery locations

Shipping method and carrier  
 Shipping order number  
 Purchase order number  
 Shipped item  
 Stock number  
 Lot number  
 Manufacturer  
 Any shipping, storage, or safety requirements  
 Received by, and date  
 Signature of Receiver

- (c) Quality assurance and quality control information from product manufacturer including recommended installation procedures (including any heating and cooling temperatures at specified time intervals, pulling speed, ultraviolet light intensity, rate of travel of the ultraviolet assembly, pressures, etc.) from the rehabilitation system supplier.
- (d) Procedure for disposal of any superheated water.
- (e) Hydrophilic waterstop, or equal, proposed for sealing the mainline connection at the manhole.
- (f) Samples of the liner material shall be provided for prior approval of the County.

**2731.01.18 Submittals – Prior to Payment.** The Contractor shall submit the information listed below for review and approval. Final payment will not be issued until all of the listed information has been reviewed and approved by the County.

- (a) The curing log of temperatures at the upstream and downstream manholes during the curing process, rate of travel of the ultraviolet assembly (if used), pressures maintained, and any other documentation used to verify the completion/adequacy of the curing process (Sections 2732 and 2733).
- (b) Results of testing for materials provided for this job, as specified in the respective rehabilitation Specification Sections (Sections 2732 and 2733).
- (c) Two complete sets of DVDs from each of the television inspections performed (Pre-Installation, Post-Installation, and Final Acceptance TV Inspection), as specified in Section 2742, Television Inspection. All work, including manhole rehabilitation and connection grouting and/or lining shall be completed prior to Final Acceptance inspection. Main line rehabilitation line item will not be compensated until rehabilitation work is complete and Post-Installation CCTV inspections showing completion of work have been submitted to the County. Related rehabilitation tasks, including manhole rehabilitation and service connection grouting, lining, and/or replacement may be compensated upon completion and approval; however, final acceptance of all work and final payment under this contract will not be made until the Final Acceptance TV Inspection has been received, reviewed, and accepted by the County as described in Section 2742.

- (d) **Post Installation:** If repairs need to be made to the liner, as a result of defects caused during manufacturing, transporting and/or installation, the Contractor shall prepare calculations supporting the recommended repair liner thickness(es), assuming a fully deteriorated host pipe condition. The calculations shall be sealed by a registered Professional Engineer. The data shall include both the sealed calculated thicknesses and the thicknesses proposed to be installed. Upon review and approval by the County, the proposed installed thicknesses will be considered the contracted design thickness. The thickness test results will be compared against these proposed installed thicknesses, not the minimum design thicknesses.

**2731.01.19** The on-site person-in-charge shall have good verbal communication skills, and shall be able to communicate clearly with the County's inspectors.

**2731.02 MATERIALS**

**2731.02.01 Accuracy of the Plans.** To the greatest practical extent, the plans accurately depict the details of the work, including the locations and numbers of all manholes, etc. However, the Contractor shall determine the locations of all structures and verify all dimensions, including lengths between manholes, by field measurement. The Contractor shall also be aware that minor variations in pipe diameter and circumference and joint offsets will occur, that it is not intended that such minor variations be indicated on the plans and that such variations will not be considered as grounds for additional claims for compensation. Prior to initiating the project, the Contractor shall thoroughly review pre-lining CCTV inspection logs and/or videos of all piping to be relined. Available DVDs/video tapes and/or inspection logs of piping to be lined will be made available to the Contractor for inspection prior to initiation of the project. The Contractor shall note the dates of the television inspections and make reasonable assumptions about deterioration and root growth/intrusion in the line since the inspections. The County will not accept responsibility, nor incur additional costs for unanticipated deterioration or root growth/intrusion in the line.

**2731.02.02** All materials and equipment used in the lining and in the insertion process shall be of their best respective kinds, without multiple patches (vacuum, repair or other patches), and shall be as approved by the County. Any materials not approved by the County prior to insertion into the piping shall be rejected and shall be removed and replaced with approved materials at the Contractor's expense.

**2731.02.03 Design Thicknesses.** The County reserves the right to change specified thicknesses based on new information.

**2731.02.04 Flow Capacity.** Maintenance of flow capacity of existing pipes is essential. Rehabilitated pipe shall have minimum of no change in capacity. An increase in flow capacity following rehabilitation is preferred, and in no case shall the flow capacity of rehabilitated pipes be reduced.

**2731.02.05 Liner Sizing.** The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the pipe to be lined. The Contractor shall make

allowance for longitudinal and circumferential stretching of the liner during installation.

**2731.02.06 Length.** The length of the liner shall be that which is deemed necessary by the Contractor to effectively carry out the insertion, provide test samples, and seal the liner at the inlet and outlet of the manhole. Individual inversion runs may be made over one or more manhole to manhole sections as determined.

**2731.02.07** The Contractor shall provide a liner exhibiting the properties described in these Specifications. Prior approval of shop drawings related to any or all materials or methods of installation shall not relieve the Contractor of this responsibility.

**2731.02.08 Manufacture Information.** It shall be necessary for the Contractor to obtain the County's prior approval for all materials or processes and the County shall have the power at any time to order the Contractor to modify or discontinue any practice. All such orders shall be given in writing.

**2731.02.09 Wall Color.** The wall color of the interior pipe surface of the rehabilitated pipe after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.

### **2731.03 CONSTRUCTION REQUIREMENTS**

#### **2731.03.01 Inspections.**

- (a) Prior to beginning insertion of the liner, the Contractor shall inspect the cleaned line by use of closed-circuit T.V. cameras, and shall confirm to his own satisfaction the condition of the line and confirm that the lines are adequately cleaned. Insertion of the liner by the Contractor shall serve as evidence of his acceptance of the condition of the piping and the suitability of the liner insertion within the host pipe. Failure of the liner system due to inadequately cleaned host pipes shall be repaired by the Contractor at no cost to the County.
- (b) During the process of manufacture and impregnation, the County shall have reasonable opportunity to examine all operations where the manufacture and impregnation (when applicable) of the liner is being carried out. The Contractor shall give appropriate prior notice in order that the County's inspector may be on hand to observe the various processes.
- (c) **No work shall be performed by the Contractor except in the presence of the County inspection personnel, unless otherwise approved. The Contractor shall coordinate his work schedule and give 48 hours (2 working days) prior notice regarding his intentions to perform any and/or all parts of the work, in order that the County's inspector may be on hand. Any work performed in the absence of the County's inspector is subject to removal and replacement at the Contractor's expense.**
- (d) Upon substantial completion of the work the Contractor shall, in the presence of the County's inspector, inspect the line using closed-circuit

television equipment. The video file thus produced shall be accompanied by a simultaneously produced, narrated sound file. The sound narration and visual inspection shall draw attention to all recognizable defects, imperfections, etc., and the location along the length of the piping shall be accurately noted. Also, the locations and all pertinent details regarding the entrance of service laterals into the main trunk sewer shall be accurately noted on the sound file. Electronic copies of the files shall become the property of the County. Televising shall be performed as specified in Section 2742, Television Inspection.

### **2731.03.02 Preparatory Procedures.**

- (a) Coordination with the County: The Contractor shall provide a minimum of seven days advanced notice to the County, prior to initiating the work specified.
- (b) Notification of Residents: Prior to starting any and all Work, including cleaning and/or television inspection, it is the responsibility of the Contractor to notify all residents that could be affected by the Work. This notification shall consist of written information and verbal communication that outlines the tasks associated with the Work (i.e. cleaning and televisions inspection) and specific information regarding the rehabilitation and/or repair process, as well as timing of the project. The written information shall be delivered to each affected home or business at least 72 hours prior to the start of any and all work, and at minimum shall describe the work, schedule, how it affects the home/business, the project manager's name, crew foreman's name, emergency contact number, and detail how to identify crew members/vehicles. The Contractor shall communicate verbally with the homeowners/business owners the day prior to the beginning of any tasks being conducted on the section relative to the homeowners/business owners. The system being cleaned, inspected, rehabilitated and/or replaced is an active system and service must be maintained during the course of construction.
- (c) The Contractor shall implement necessary erosion and sediment control measures prior to initiating any work. These measures shall be in accordance with the most current federal, state, and local regulations.
- (d) The utilities must be marked by "Miss Utility" prior to construction layout.
- (e) The Contractor shall provide water and sewer to affected property owners in the event of extended service interruption, at no additional cost to the County. No property shall be without sewer service for more than eight (8) hours.
- (f) When necessary and approved by the County and all resident and commercial properties affected, the Contractor shall install appropriate access roads. The access road and all related items shall be removed at the end of the job. Final payment will not be made until the site is restored to original or better conditions, including removal of all gravel.



- (g) The actual sizes, lengths and materials of the pipes to be relined shall be as indicated on the plans, but shall be verified by the Contractor prior to commencing with the work, including prior to ordering of materials.
- (h) Cleaning: Cleaning of sewer lines and manholes shall be performed as specified in Section 2741, Sewer Line, Lateral, and Manhole Cleaning.
- (i) TV Inspection: Inspection of sewer lines shall be performed as specified in Section 2742, Television Inspection.
- (j) Flow Control: When required for acceptable completion of an insertion process, the Contractor shall provide for adequate flow control including but not limited to required pumping and bypassing as stipulated in Section 2740, Flow Control, of the Contract Documents.
- (k) Point Repairs: When required before lining process, point repairs shall be performed as specified in Section 2744, Point Repairs.
- (l) Intruding service connections shall be cut flush with the host pipe prior to liner installation. These connections shall be removed using remote robotic cutter equipment specifically designed for this purpose. The internal cutter shall be capable of cutting cast iron, PVC, vitrified clay pipe, and ductile iron pipe. All materials/cuttings shall be removed from the sewer and properly disposed of. NOTE: Point repairs shall be made only after remote intruding service removal methods were performed and shall be approved in advance by the County.
- (m) Material Removal: Refer to Section 2741, Sewer Line, Lateral, and Manhole Cleaning, for material removal.
- (n) Disposal of Materials: Refer to Section 2741, Sewer Line, Lateral, and Manhole Cleaning, for disposal of materials.
- (o) Visible Leaks: The Contractor shall seal all leaks and infiltration that will prevent the liner from curing properly and meeting the requirements of Specification Sections 2732 and 2733. Infiltration control is considered incidental and shall be included in the cost of the project.

**2731.03.03 Sealing at Manholes Immediately Prior to Lining.**

- (a) Contractor shall install hydrophilic end seals at all manhole penetrations prior to mainline rehabilitation, to form a watertight seal between the pipe liner and host pipe. The end seals must be composed of hydrophilic rubber and molded as a one-piece, 3-inch wide cylinder which when installed will form a 360 degree seal between the host pipe and the newly installed liner. The use of caulking, rope or band type of an end seal will not be allowed. Acceptable End Seals are the Insignia™ End Seal Sleeve by LMK, **or pre-approved equal.**
- (b) The Contractor shall repair any manhole benches and inverts that have been damaged during the liner installation.

**2731.03.04 Internal Drops.**

- (a) Internal drops shall be fully reinstated and fully cut out to original diameters and the Contractor shall brush each opening upon reinstatement.

**2731.03.05 Service Connections.**

- (a) Refer to Section 2751, Sanitary Sewer House Connection Reinstatement and Lateral Replacement for service connection reinstatement and replacement and to Section 2738, Sanitary Sewer Pipe Joint and Service Connection Testing and Grouting for grouting.
- (b) Connection of Service Laterals to the Rehabilitated Main: Tests for compliance shall be as specified in the Category 1000 of the County's Standards and Sections 2742, Television Inspection, 2738, Sanitary Sewer Pipe Joint and Service Connection Testing and Grouting, and 2751, Sanitary Sewer House Connection Reinstatement and Lateral Replacement.

**2731.03.06 Manhole, Cleanout and Pipeline Abandonment.**

- (a) When underground utilities are to be abandoned in place, permanently plug, cap, or seal with concrete at the "construction limits" or at points shown.
- (b) Remove underground utilities as specified, and backfill resulting excavation with suitable material compacted as specified in the County's Standards. Permanently plug, cap, or seal utilities with concrete at the "construction limits" or at points shown or specified.
- (c) Sanitary sewer pipeline segments to be abandoned shall be securely plugged to the satisfaction of the County. Sewer lines to be abandoned that do not terminate at a manhole and/or are connected to a manhole to remain active, shall be excavated at the main, broken off, and plugged with concrete. The concrete shall extend a minimum of 2-feet into the pipeline. Sewer lines to be abandoned under buildings shall be filled with an approved flowable fill material.
- (d) Manhole and Cleanout Abandonment: Work includes the removal of the top 2-feet of the structure below final grade including casting and cover, punching a hole at the bottom of the manhole or cleanout, filling the rest of manhole or cleanout with an approved flowable fill, mortar plugging the lines at the manhole or cleanout (prior to fill), and permanent right-of-way restoration. Casting and covers shall be properly disposed of by the Contractor.
- (e) Backfill and surface restoration shall be in accordance with the County Standards and these Specifications.

- 2731.03.07 Defective Work.** Any defects, which, in the judgement of the County, will affect the integrity or strength of the lining, impede flow or operations and maintenance (O&M) equipment, or allow leakage into the lined pipe shall be repaired or the liner replaced at the Contractor's expense. Obtain approval of the County for method and length of repair, including open cut point repairs, which may require field or workshop demonstration. Prior to and following any repairs, the Contractor shall clean and television inspect the respective pipeline section(s), from manhole to manhole, at the Contractor's expense.
- 2731.03.08 Final Cleanup.** Upon completion of rehabilitation work and testing, the Contractor shall clean and restore the project area affected by the Work, per Section 1700 of these Specifications.
- 2731.03.09 Payment and Final Acceptance.**
- (a) Payment shall detail quantities by line item and shall have backup materials, including the breakdown of billable work for each line item.
  - (b) Main line rehabilitation may be compensated once rehabilitation work is complete and post-installation CCTV inspections showing completion of work have been submitted to the County. Related rehabilitation tasks, including manhole rehabilitation and service connection grouting, lining, and/or replacement may be compensated upon completion and approval of work and submission of required post-installation CCTV inspections. If defects are observed during the post-installation CCTV inspection, the Contractor shall make the repairs as specified herein. See individual sections for descriptions of items and basis of payment. Payment for an item does not indicate final acceptance of that item.
  - (c) Upon completion of all work on each pipe segment, including repairs for defects observed during the post-installation CCTV inspections, the Contractor will reinspect the rehabilitated and/or repaired pipeline, including all related manhole and service connection/lateral work, by the use of closed-circuit TV cameras and shall submit a Final Acceptance CCTV Inspection, including color DVD and inspection log, of the work on each segment to the County for approval/acceptance of the work in accordance with Section 2742, Television Inspection. If the County deems the rehabilitated pipeline section is not clean enough for proper viewing and approval of the work, the Contractor shall clean the pipeline section in accordance with Section 2741, Sewer Line, Lateral, and Manhole Cleaning, and reinspect the respective pipeline section in accordance with Section 2742, Television Inspection, at no additional expense to the County. Payment for the Final Acceptance CCTV Inspection item will only be made once for each main-line section on which any rehabilitation, replacement, and/or repair work is performed. Payment of this item for a section indicates acceptance by the County of lining and lateral work on that section. Payment will only be made for Final Acceptance CCTV inspection footage reviewed and approved by the County.
  - (d) Final completion of the contract will not be given until all defects are repaired, television inspected, and a Final Acceptance CCTV Inspection

is submitted and approved in accordance with Section 2742 for each pipe segment and associated work included in the contract. Final Payment will only be made after the County has received and approved all required submittals and requested field data including, but not limited to, Final Acceptance Inspection Video Files, TV logs, curing logs, grouting logs, and inspector's reports for the entire rehabilitated section.

- (e) The Contractor shall be responsible for repairing all damage that is caused during the completion of the work. This includes, but is not limited to, repair of damaged water meters, sidewalks, driveways, landscaping and all other public and private property. All repairs shall be completed and the site restored to its original or better conditions before final payment is made. All repairs and site restoration shall be approved by the County Inspector before final payment is made. Damage caused as a result of negligence of the Contractor, in the opinion of the County, will not be compensated for and will be considered incidental to existing, approved bid items.

**2731.03.10 Warranty Inspection.** The Contractor may be required to clean and televise any sections (from manhole to manhole) that have been repaired as a result of defects in the work product, at the end of a two year warranty period to assure quality. The lines shall be cleaned and televised in accordance with Section 2741, Sewer Line, Lateral, and Manhole Cleaning and Section 2742, Television Inspection. This warranty inspection shall be included in the cost of the project.

#### **2731.04 MEASUREMENT AND PAYMENT**

**2731.04.01 Removal of Protruding Service Connections.** Removal of protruding service connections will be paid for at the unit price bid for each protruding connection removed.

- (a) **Basis of Payment.** Price per each shall include all labor, materials, equipment, tools and incidentals for removal of protruding service connections. Protruding connections are considered connections that protrude more than ½-inch into the main pipeline. The protruding connections shall be removed by remote methods, without excavation, unless otherwise approved by the County. Materials shall include all appurtenances necessary to complete the work as specified.

**2731.04.02 Abandonment of Existing Sanitary Sewer Manholes.** Abandonment of existing sanitary sewer manholes shall be measured in units of each abandoned.

- (a) **Basis of Payment.** The unit price per each shall be full compensation for excavating, removal and disposal of the top 2-feet of the structure below final grade including the manhole frame and cover, punching a hole at the bottom of the structure, plugging of any pipes, flowable fill, compacting, pavement removal and disposal, site cleanup, disposing of surplus or unsuitable material, and for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work as specified.

**2731.04.03 Abandonment of Existing Sanitary Sewer Force Mains, Gravity Sanitary Sewer Mains and Laterals.** Abandonment of existing sanitary sewer force mains, gravity sanitary sewer mains and laterals shall be measured in units of each line abandoned.

- (a) **Basis of Payment.** The price per each line abandoned shall be full compensation for excavating, breaking, plugging, concrete, pavement removal and disposal, site cleanup, disposing of surplus or unsuitable materials, and for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work as specified.

**2731.04.04 Access Road.** Installation of necessary access roads, as approved by the County, shall be measured per square yard of access road installed.

- (a) **Basis of Payment.** The price per square yard shall be full compensation for furnishing all materials, including mats, gravel, rollers, and planks, labor, tools, equipment and incidentals necessary to complete the work as specified. This shall include access road installation and removal, preconstruction video, as well as site restoration to original or better conditions.

END OF SECTION

## SECTION 2732

### PIPE REHABILITATION BY CURED-IN-PLACE METHOD (CIPP) (PER ASTM F1216)

#### 2732.01 DESCRIPTION

**2732.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2732.01.02 Description of Work.** These specifications include requirements for all design, materials, transportation, equipment and labor necessary to rehabilitate deteriorated sections of sewer listed in the contract documents by means of cured-in-place pipe (CIPP) liner, using the inversion and curing of a resin-impregnated tube method, per ASTM F1216. This specification is intended to identify the minimum requirements of the County.

**2732.01.03 Submittals After the Notice of Award.** The Contractor shall have ten (10) working days after the date of award to submit the following information to the County for review and approval. Failure to do so may be grounds for termination of contract. This shall be in addition to the information required pursuant to Section 2731.

- (a) Detailed description of lubricant proposed for inversion process. Lubricant shall be compatible with the County's and/or City's wastewater treatment plant operations and pretreatment program.
- (b) Certification of resin volume and required 5 to 10% addition.
- (c) Certification from resin manufacturer regarding approval of resin dye quantity and type.
- (d) Information on the maximum allowable tensile stress for the tube, from the felt manufacturer.
- (e) Shop drawings and product data to identify materials of construction (including resins, catalysts, felt, etc.), felt manufacturer, location of the felt manufacturing facility, location of the wet-out facility, etc. All CIPP liner shall be manufactured from this designated wet-out facility throughout the entire Contract unless specifically approved otherwise by the County in writing. Multiple wet-out facilities shall not be allowed.
- (f) A complete description of the proposed wet-out procedure for the proposed technology.
- (g) Provide data on the maximum allowable stresses and elongation of the tube during installation and the means in which the Contractor will monitor stress and elongation.
- (h) Temperature monitoring system, if required.

**2732.01.04 Submittals After the Notice to Proceed.** The Contractor shall submit the information listed below, after the Notice to Proceed, for review and approval. This shall be in addition to the information required pursuant to Section 2731.

- (a) Suitable documentation for each liner, indicating manufacturer, trade name, time and date of manufacture, felt thickness, number of layers, diameter, length of liner, resin types, resin content, catalyst, relevant batch numbers, storage limitations and requirements, etc.
- (b) CIPP liner curing reports documenting the liner installation for all sewer segments shall be submitted after the notice to proceed. The CIPP liner reports shall document all details of liner installation, including manhole numbers, street names/sewer location, project number, date, time, temperature, curing temperature, curing time, CIPP liner thickness, etc. A sample report shall be submitted to the County for approval prior to the installation of any CIPP lining.
- (c) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the rehabilitative product manufacturer(s), manufacturer's representative or vendor as well as the Cured-In-Place Pipe (CIPP) liner installer certifying that the product(s) they are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.

**2732.01.04 Submittals After Cured-in-Place Pipe Liner Installation.** The Contractor shall submit the information listed below, after the CIPP liners have been installed. This shall be in addition to the information required pursuant to Section 2731.

- (a) If requested, wet-out forms with detailed information including, but not limited to, roller gap settings, start times, finish times, gel times, resin injection locations, and any other pertinent data documenting the wet-out for each section of CIPP liner manufactured.

**PRODUCT WARRANTY AND CERTIFICATION FORM**

REFERENCE (PROJECT NAME AND CONTRACT NUMBER):-  
\_\_\_\_\_

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE REHABILITATION PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)



## 2732.02 MATERIALS

- 2732.02.01** The liner shall generally consist of a corrosion resistant polyester, vinyl ester, or epoxy thermosetting resin, or approved equal, impregnated tubing material consisting of one or more layers (with any layer not less than 1.5mm thick) of flexible non-woven polyester felt or fiberglass fiber. The liner system shall meet the requirements of ASTM F1216, ASTM F1743, and ASTM D5813 and shall be constructed to absorb and carry resins, withstand inversion pressures and curing temperatures, have sufficient strength to bridge missing pipe, stretch to fit irregular pipe sections, and shall invert smoothly around bends. The felt content of the CIPP liner shall be determined by the Contractor, but shall not exceed 25 percent of the total impregnated liner volume. The liner shall fit tightly to the internal circumference of the existing pipe, and an impermeable, flexible membrane integrally bonded to the internal circumference of the felt, thus forming a smooth, chemically inert internal flow surface. The membrane shall be an appropriate thickness to accommodate the installation and cure conditions and shall not be considered to impart any structural strength to the liner but considered an integral part of the liner system. The membrane (internal liner coating) shall be constructed of a material that is suitable for the liner installation/cure method used by the Contractor. The liner shall be fabricated to a size that when installed will neatly fit the internal circumference of the pipe to be lined. Allowance for longitudinal and circumferential stretching of the liner during installation shall be made by the Contractor. All CIPP linings shall be from a single manufacturer. The cured liner shall have a 50-year life span.
- 2732.02.02** The resin volume shall be adjusted by adding 5 to 10% excess resin for the change in resin volume due to polymerization and to allow for any migration of resin into the cracks and joints in the original pipe.
- 2732.02.03** **Wall Thickness:** The required structural CIPP wall thickness shall be designed in accordance with the guidelines in Appendix X1 of ASTM F1216. The minimum liner thickness for nominal pipe diameters of 8 to 12 inches shall be 6 mm. Minimum liner thickness for nominal pipe diameters of 14 to 16 inches shall be 7.5 mm. Minimum liner thickness for nominal pipe diameters of 18 inches shall be 9 mm. In cases where ovality exceeds 10%, or where pipes are egg or oval shaped, alternative methods of design may be considered by the Engineer. The categories of design parameters noted in Tables 2732-1, 2732-2, and 2732-3 shall be used, unless otherwise directed by the County. The selected thicknesses shall be uniform for each pipe diameter and shall be based on the thickest, most conservative design wall thickness calculated for each diameter.
- 2732.02.04** **Common Design Parameters:** Design inputs generally considered to be the same from site to site for a particular project are provided in Table 2732-1.

Table 2732-1 Common Design Parameters	
Safety Factor <sup>(1)</sup>	2.0
Soil Modulus <sup>(2)</sup>	700 psi
Soil Density <sup>(3)</sup>	120 pcf

Notes Table 2732-1:

1. The safety factor may be reduced to 1.5 at the discretion of the Engineer, normally in the case where there is accurate and detailed information known about the existing pipe and soil conditions.
2. In the absence of site-specific information, the County assumes a soil modulus of 700 psi.
3. In the absence of site-specific information, the County assumes a soil density of 120 pcf.

**2732.02.05**

**Site Specific Parameters:** The information listed in Table 2732-2 is specific to each manhole to manhole run of pipe. The Contractor shall use for design the information provided by the County and information the Contractor collects during site visits for each manhole to manhole run.

Table 2732-2 Site-Specific Design Parameters	
Ovality	Notes 1, 2
Ground Water Depth Above Invert	Notes 1, 3
Soil Depth Above Crown	Note 1
Live Load	Notes 1, 4
Design Condition (Fully Deteriorated)	Notes 1, 5
CIPP Thickness	Notes 1, 6, 7

Notes Table 2732-2:

1. Design thicknesses and complete site-specific designs, as stated herein, in accordance with ASTM F1216 (**Appendix X1**), shall be submitted after the Notice of Award.
2. The Contractor shall estimate the ovality by viewing the DVDs/videotapes, data and notes provided in the Contract Documents, and any other information provided by the County. If DVDs/tapes are not available, and the Contract Plans do not state otherwise, the Contractor shall assume an ovality of 3%. In

cases where the ovality exceeds 10%, the Contractor may consider employing alternative design methods (such as beam design methods) to determine the pipe thickness, at no additional cost to the County.

3. In the absence of accurate water table information or high water elevation observed during the site visit (stream, ponds, etc.), the Contractor shall assume a seasonal groundwater elevation of 0 feet below the ground surface.
4. CIPP is subjected to traffic live loads as calculated by AASHTO Standard Specifications for Highway Bridges, HS20-44 Highway Loading.
5. The Contractor shall assume the pipe segments are fully deteriorated.
6. Thicknesses specified (designed by the Contractor and approved by the County) are the final, in-ground thicknesses required. Measured sample thicknesses will not include polyurethane or polyethylene coatings, any layer of the tube not fully and verifiably impregnated with resin, or any portion of the tube not deemed by the County to be a structural component of the composite.
7. The Contractor must consider any factors necessary to ensure the final, cured-in-place pipe thickness is not less than specified (designed by the Contractor and approved by the County) above. These factors include any stress applied to the material during transportation, handling, installation and cure; the host pipe's material type, condition, and configuration; weather (including ambient temperature conditions); and any other factors which are reasonably expected to be found in existing sanitary sewer systems.

**2732.02.06 Product-Specific Design Parameters:** Certain design inputs vary by manufacturer, processes design, or installation technique. These variables are listed in Table 2732-3 with explanatory notes that follow.

Table 2732-3 Minimum Product-Specific Design Parameters	
Minimum Enhancement Factor, $K^{(1)}$	$K = 7$
Minimum Initial Flexural Strength (ASTM D790) <sup>(2)</sup>	$\Phi_s = 4500 \text{ psi}$
Minimum Initial Flexural Modulus of Elasticity (ASTM D790) <sup>(2)</sup>	$E_s = 350,000 \text{ psi}$
Minimum Retention of Properties to Account for Long-Term Effects <sup>(3)</sup>	50%
Minimum Long-Term Flexural Modulus of Elasticity <sup>(3)</sup>	$E_L = 175,000 \text{ psi}$

Notes Table 2732-3:

1. Enhancement factor (K) is the additional buckling or load resistance of the rehabilitation product due to the restraining action of the host pipe. The tighter

the fit of the product within the host pipe, the greater the value of K. Third party testing of external hydrostatic loading capacity of restrained pipe samples shall be conducted to verify the enhancement factor, K. The minimum values provided are based on the “Long-Term Structural Behavior of Pipeline Rehabilitation Systems,” Trenchless Technology Center, 1994.

2. Initial values are defined in ASTM D790. The value indicates minimum strength both in the circumferential and longitudinal direction. The County may, at any time prior to installation, direct the Contractor to make cured samples (according to ASTM F1216) and test them in accordance with the listed ASTM standards to verify initial values of physical properties. In such tests the Contractor’s samples must achieve a 95% pass-rate.
3. The initial flexural modulus is multiplied by the creep factor (or percentage retention) to obtain the long-term values used for design. Long-term values shall be verified by long-term external pressure testing of circular lengths of the pipe material by third-party labs prior to bid (e.g. Trenchless Technology Center - TTC). It is understood that the material’s modulus of elasticity will not change over time; however, by convention the modulus is reduced for design purposes for all plastic pipe sections to account for the reduced ability of plastic pipe to carry loads due to the changes in pipe geometry resulting from the effects of creep over time.

#### **2732.02.07 Resin Content**

- (a) The resin content of the liner shall be 10-15% by volume greater than the volume of air voids in the felt liner bag.
- (b) The resin used shall not contain fillers, except those required for viscosity control, fire retardance, or as required to obtain the necessary pot life. Thixotropic agents which will not interfere with visual inspection may be added for viscosity control.
- (c) Dye shall be added to resins to improve visual inspection of the cured liner. The types and quantities of dyes added shall have prior approval from resin manufacturer.

**2732.02.08 Chemical Resistance:** The corrosion resistance of the resin system shall be tested by the resin manufacturer in accordance with ASTM D543. The result of exposure to the chemical solutions listed below shall produce loss of not more than 20 percent of the initial physical properties when tested in accordance with ASTM D543 for a period of not less than 1 year at a temperature of 73.4 °F plus or minus 3.6 °F. For applications other than municipal wastewater, conduct chemical resistance tests with actual samples of the fluid to be transported in the pipe and in accordance with procedures approved by the County. The cured liner shall also be chemically and physically resistant to external exposure of soil bacteria, moisture, roots, and chemical attack that may be due to material in the surrounding ground.

<b>TABLE 2732-4</b> <b>CONCENTRATIONS OF CHEMICAL SOLUTIONS</b> <b>FOR CHEMICAL RESISTANCE TEST</b>	
<b>CHEMICAL SOLUTION</b>	<b>CONCENTRATION, %</b>
Tap Water (pH 6-9)	100
Nitric Acid	5
Phosphoric Acid	10
Sulfuric Acid	10
Petroleum Hydrocarbon Based Fuels (e.g. Gasoline, diesel, etc.)	100
Vegetable Oil <sup>1</sup>	100
Detergent <sup>2</sup>	0.1
Soap <sup>2</sup>	0.1
Domestic Sewage*	100

<sup>1</sup>. Cotton seed, corn, or mineral oil

<sup>2</sup>. As per ASTM D543

\* Contractor to include a written statement that their material and resin combination has been successfully installed in the United States and is chemically resistant to domestic sanitary sewage.

## **2732.02.09 Manufacture Information**

- (a) The Contractor shall deliver the uncured resin impregnated liner system to the site. Unless otherwise approved by the County, the bag shall not be impregnated at the site. The application of the resin to the felt tubing (wet-out) shall be conducted under factory conditions and the materials shall be fully protected against UV light, excessive heat, and contamination at all times. The liner system shall be impregnated with resin not more than 72 hours before the proposed time of installation and stored out of direct sunlight at a temperature of less than 30°F. Continuously monitor liner materials during transport and storage with a temperature recorder and data storage. If requested, the Contractor shall furnish the County with the recorder readings before installation. Material that is exposed to temperatures outside of the manufacturer's limits will be rejected. The Contractor shall provide all appropriate transport, handling and protection equipment including refrigerated, or otherwise suitably cooled, transport equipment in accordance with the manufacturer's requirements.
- (b) All fabricating and Contractor testing shall be carried out under cover and no materials shall be exposed to the weather until they are ready to be inserted. All materials should be protected from the weather and exposure

to ultra-violet light as practicable during the manufacture and installation process.

- (c) Each liner shall be accompanied by suitable documentation indicating manufacturer, trade name, time and date of manufacture, felt thickness, number of layers, diameter, length of liner, resin types, resin content, catalyst, relevant batch numbers, storage limitations and requirements, etc. and this information shall be submitted to the County.

#### **2732.02.10 Preliner.**

- (a) A preliner may be required to help control infiltration or accommodate other liner installation requirements. The preliner shall be as recommended by CIPP lining system manufacturer. If required for successful installation of the liner, the preliner shall be utilized and installed as part of the CIPP lining process at no additional cost to the CIPP lining work.

### **2732.03 CONSTRUCTION REQUIREMENTS**

#### **2732.03.01 Lining Procedures.**

- (a) The Contractor will not be compensated for liners ordered without confirmation of length and field conditions.
- (b) The liner shall be installed in accordance with ASTM F1216.
- (c) The Contractor shall conduct operations in accordance with applicable OSHA standards, including those safety requirements involving work on an elevated platform and entry into a confined space. Take suitable precautions to eliminate hazards to personnel near construction activities when pressurized air is being used.
- (d) All service locations shall be measured for location prior to liner installation. All service connection measurements and the clockwise position of the openings shall be recorded in a log to aid in the reinstatement of service connections after lining. The approximate locations of identified active service taps are shown on the Contract Drawings; however, the Contractor shall determine the exact location and number of service connections by the dye test method or other methods approved by the County. The Contractor shall accurately field locate existing service connections, whether in service or not. For rehabilitated lines, the Contractor shall use existing service locations to reconnect service lines to new liner, unless otherwise specified on the Contract Drawings or directed by the County. During the line preparation and work operation, inactive sewer house connections shall not be cut but shall be left lined over, unless directed by the County.
- (e) Temperature monitoring systems are required for all 18" or larger sewer, any sized sewer in locations with significant known groundwater infiltration, or if the pipe is within 50 feet of stream, river or lake. This

system shall be installed at the invert of the pipe and be installed per the manufacturer's recommended procedures. The temperature sensors shall be placed at intervals as recommended by the sensor manufacturer. Additional sensors shall be placed where significant heat sinks are likely or anticipated. The sensors, if installed, shall be monitored by a computer using a tamper proof data base that is capable of recording temperatures at the interface of the liner and the host pipe. Temperature monitoring systems shall be Zia Systems, Vericure by Pipeline Renewal Technologies, or approved equal.

- (f) In the event of insertion being delayed after impregnation by unexpected site conditions but prior to the start of the insertion process, the Contractor shall store, at his own cost, the liner, for a further period of at least 72 hours, below 30°F for use when conditions allow.
- (g) The liner shall be inverted into the pipeline from a suitable platform located above the manhole or other approved point of inversion. The Contractor shall be allowed to insert the liner using another process, which has been approved by the County. The free open end of the liner bag shall be firmly secured to the platform and the folded liner passed down a suitably reinforced column to a chute or bend leading to the opening of the pipe to be lined. Insert liner without twisting, cutting, tearing, separating, kinking, gouging, overstressing, resin loss, or double-ups. The loss or discharge of resin, other lining materials, or byproducts downstream is not permitted. Potable water at ambient temperature shall be supplied to the platform at a rate sufficient to cause controlled installation of the liner into the pipeline.
- (h) Liner inversion rate for the inversion method shall not exceed 32 feet per minute and the tail of the liner or the tail tag rope shall be suitably restrained to prevent liner run away, if applicable.
- (i) The Contractor shall supply a suitable heat source and recirculation equipment capable of delivering required curing temperature to the far end of the liner to uniformly raise the water temperature in the entire liner, once inverted in the pipeline, above the temperature required to commence the exothermic reaction of the resin as determined by the catalyst system employed.
- (j) The heat source shall be fitted with suitable monitors to gauge and record the pressure and temperature of the incoming and outgoing water supply to determine when uniform temperature is achieved throughout the length of the liner. Another such gage shall be placed between the impregnated tube and the pipe invert at the termination to determine the temperatures during cure. Install thermocouples at the top and bottom (12 and 6 o'clock positions) of the liner between the liner and the host pipe. If the liner is installed through manhole structures, gages shall also be placed at each structure.
- (k) Initial cure will occur during temperature heat-up and shall be completed when exposed portions of the new pipe appear to be hard and sound and

the remote temperature sensor indicates that the temperature is of a magnitude to realize an exotherm or cure in the resin. After initial cure is reached, the temperature shall be raised to the post-cure temperature recommended by the resin manufacturer. The post-cure temperature shall be held for a period as recommended by the resin manufacturer, during which time the recirculation of the water and cycling of the boiler to maintain the temperature shall continue. The curing of the CIPP must take into account the existing pipe material, the resin system, and ground conditions (temperature, moisture level, and thermal conductivity of soil).

- (l) The curing period shall be carried out under an inversion head to maintain a minimum hoop tension in the liner felt of 1 lb/in<sup>2</sup>.
- (m) If cool-down is to be accomplished by the introduction of cool water into an inversion standpipe to replace the water being drained from a small hole made in the downstream end, cool the hardened pipe to a temperature below 100 degrees F (38 degrees C) before relieving static head in the inversion standpipe. Ensure that, in the release of the static head, a vacuum will not be produced that could damage the newly installed CIPP liner.
- (n) Vent and/or exhaust noxious fumes or odors generated during and remaining after the curing process is completed. This process shall remain in place at all manholes, laterals, etc. until noxious odors have dissipated to an acceptable level in accordance with OSHA requirements for the materials used and there is no more air pollution or potential health hazard left to the general public or the construction workers.
- (o) The Contractor shall maintain a curing log of CIPP temperatures at the upstream and downstream manholes during the curing process to document that proper temperatures and cure times have been achieved. The logs shall be required to be submitted to the County.
- (p) Invert through Manholes. The invert shall be continuous and smooth through all manholes. If a liner is installed through a manhole, the bottom portion of the liner shall remain and the bench of the manhole shall be grouted and shaped as necessary to support the liner. If the liner terminates on either side of a manhole, the invert shall be built up to remove any flow restrictions and to form a continuous invert through the manhole. The cost of this work shall be included in the unit price bid for the liner.
- (q) The finished pipelining shall be continuous over the entire length of an insertion run between two manholes or structures and be as free as commercially practicable from visual defects such as fins, foreign inclusions, dry spots, air bubbles, pinholes, dimples and delamination. The lining shall be impervious and free of leakage from the pipe to the surrounding ground or from the ground to the inside of the lined pipe. Defects that will impede flow or maintenance equipment will not be permissible. Pinholes and leaking patches will not be allowed. If found they must be repaired per the manufacturer's recommendations, at the Contractor's expense.



- (r) The inner surface shall be free of cracks and crazing with smooth finish and with an average of not over two pits per 12 inch square, providing the pits are less than 0.12 inch in diameter and not over 0.04 inch deep and are covered with sufficient resin to avoid exposure of the inner fabric. Some minor waviness, that in the County's opinion will not appreciably decrease the flow characteristics or be the cause of a possible blockage, shall be permissible.
- (s) Steam cure of the liner is an acceptable method and shall meet the following requirements:
  - (1) There shall be manifolds connected at both the inlet and outlet air/steam hoses. Temperature and pressure sensors shall be located on the inlet manifold. The installation equipment shall include an inlet air/steam hose, air compressor, acceptable steam source, and monitoring and control equipment in accordance with the manufacturer's recommendations. There shall also be an outlet air/steam hose mounted to a gauge station that has a pressure adjustment valve, temperature gauge, and pressure gauge.
  - (2) The liner shall be inflated with adequate pressure to hold the liner tightly against the pipe wall. Once the correct pressure is reached, the outlet valve shall be used to maintain this pressure.
  - (3) Once the liner is inflated, the temperature shall be adjusted according to the manufacturer's recommendations. The temperature shall be monitored by the sensors that are attached to the liner until the recommended temperature is reached. Time, temperatures, and pressures shall be recorded continuously throughout the curing process and submitted to the County at the end of the installation. This log will insure that the proper curing of the liner was carried out.
  - (4) If recommended by the manufacturer, a post curing steam shall be conducted in order to fully develop the chemical resistance and resin strength of the liner.
  - (5) The Contractor shall gradually cool the liner down by replacing the steam in the line with air and water, if necessary. The temperature, measured by the sensors attached to the liner, shall be lowered to 90°F or as recommended by the manufacturer.
  - (6) Once the cure is complete, the manifolds and then the calibration hose shall be detached and removed from the line.

#### **2732.03.02      Testing**

- (a) The Contractor shall collect representative coupon samples/specimens as described below. At minimum, a coupon shall be collected for each pipe diameter that is lined and each liner thickness, unless otherwise specified in writing by the County. For every 1,000 linear feet of CIPP liner installed for the first 10,000 linear feet, the Contractor shall perform

sampling and testing at his expense and shall supply results to the County. The frequency of testing may be reduced as approved by the County after sufficient tests are performed to verify the CIPP liner design, production, and installation procedures. Likewise, the frequency of testing may be increased by the County and performed by the Contractor at no additional cost to the County when the required tests show that the installed CIPP liner does not meet the specifications. After the 10,000 feet of acceptable test results are received, the test sample frequency can be reduced to one sample every 2,000 feet as long as samples continue to meet all minimum standards and sampling results are received in a timely manner. If a test is not passed, the lining will not be accepted. The Contractor shall stamp or mark the test pieces with the date of manufacture and batch number. These samples shall be paid for under the Pay Item for sanitary sewer rehabilitation, for the respective diameter sizes.

- (b) Remove restrained samples of the installed CIPP liner at least 18-inches in length. The sample shall be captured by installing the CIPP liner through a section of PVC pipe (same diameter as the existing sewer diameter) within the most downstream manhole of the installation and at all intermediate manholes if multiple sewer segments are lined at the same time. The Contractor may elect to cut the sample longitudinally and provide half of the sample to the independent testing laboratory and keep the other half of the sample for additional testing if necessary.
- (c) Testing shall be performed by an ASTM-certified independent testing laboratory. The Contractor shall submit to the County the name and location of the independent testing laboratory, a certified statement from the laboratory indicating that they are independent from and not associated with the Contractor in any way, and the ASTM certification for the independent testing laboratory.
- (d) All expenses for sampling and testing of the installed liner shall be paid for by the Contractor. The cost of all manufacturer's testing to qualify products furnished to the project site shall be the responsibility of the Contractor.
- (e) Should the County desire to make additional independent tests, the Contractor shall, upon request of the County, furnish any reasonable number of test pieces of raw material samples as the County may require, stamped or marked with the date of manufacture and batch number if applicable.
- (f) The test specimen shall be conditioned in accordance with procedure 'A' of ASTM Designation D618, Standard Practice for Conditioning Plastics for Testing.
- (g) The test specimen shall be prepared and physical properties tested in accordance with ASTM F1216, Section 8.1. The properties shall meet or exceed the higher of the values identified in Table 1 of ASTM F1216 and Table 2732-3 of this Specification.

- (h) In addition to the testing requirements specified above, the Contractor shall verify that installed thickness of the CIPP is within minus 5 percent and plus 10 percent of the specified thickness. The ASTM-certified independent testing laboratory shall test the samples to determine the installed liner thickness (conditioned and prepared in accordance with ASTM D618 and ASTM D5813, and tested in accordance with ASTM D790).
- (i) It is preferred that all samples be shipped to the independent laboratory the same day as installation. At the Contractor's discretion, samples may be sent in batches but in no case later than 30 days after installation. The results of the measurements for each sample shall be submitted to the County within 30 days of the sample's ship date to the laboratory. The costs for testing shall be included in the bid price for rehabilitation including the cost of all manufacturer's testing to qualify products furnished to the project site.
- (j) Any CIPP lining that does not meet the specified installed strength and/or thickness requirements, regardless of the amount below the specified requirements, shall be corrected by the Contractor in a manner approved by the County at no additional cost to the County. The County's decision on how to correct the deficient CIPP liner installations shall be final. Options for correcting deficient CIPP liner installations that will be considered by the County include the following: removal of the existing CIPP liner and re-lining the sewer, open-cut replacement of the sewer from manhole to manhole, or re-lining the sewer with the existing CIPP liner in place.

## 2732.04

### MEASUREMENT AND PAYMENT

#### 2732.04.01

**Cured-in-Place Pipe Lining.** Measurement for payment will be the actual linear footage installed, measured along the centerline of the pipe. Length will be measured from edge of manhole to edge of manhole, unless the liner extends through a manhole, in which case the distance to and from that manhole will be measured to the center of that manhole. Payment is based on the CIPP thickness required for the deepest flow line of the rehabilitated segment.

- (a) **Basis of Payment.** Payment shall be made at the contract unit price bid per linear foot of pipe rehabilitated. The unit price includes all labor, incidentals, materials, resident notification, flow control, preconstruction video taping, confined space entry and equipment, sediment and root removal, debris collection and disposal, removal of protruding service connections (protruding less than ½ inch into the main pipeline), re-establishing lateral service connections, dewatering, traffic control, erosion and sediment control, excavation pits, pre- and post-cleaning, pre and post-installation CCTV inspection including submission of videos and television logs, warranty inspections, sealing the liner in the manholes and at service connections, required compliance tests, initial and general backfill and compaction, borrow for backfilling, offsite disposal of unsuitable material, pavement removal and disposal, site cleanup, and all other rehabilitation work, not included under other items, necessary to

complete the rehabilitation as specified. Payment for this item does not indicate final acceptance of this item; final acceptance is contingent on the receipt, review, and approval of the Final Acceptance TV Inspection described in Section 2742.

**2732.04.02 Mandatory Utilization of Epoxy Vinyl Ester Resin** where ordered for use in certain, specific industrial waste areas or areas with high temperature waste will be the actual per inch of nominal pipe inside diameter and per linear foot of cured-in-place pipe lining installed using the epoxy vinyl ester resin.

- (a) This item shall only be paid, where specifically ordered in the work order, in addition to the applicable unit prices paid under the sewer rehabilitation items, whether or not the Contractor is otherwise utilizing the epoxy vinyl ester resin. Each unit price bid will be full compensation for all additional costs of utilizing the epoxy vinyl ester resin. The County will not pay for this item when the Contractor elects the use of epoxy vinyl ester resin, without specific direction to do so.

END OF SECTION

## SECTION 2733

### PIPE REHABILITATION BY PULLED-IN-PLACE GLASS REINFORCED PLASTIC (GRP) CIPP METHOD (PER ASTM F2019)

#### 2733.01 DESCRIPTION

**2733.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2733.01.02 Description of Work.** These specifications include requirements for all design, materials, transportation, equipment and labor necessary to rehabilitate deteriorated sections of sewer listed in the contract documents by means of cured-in-place thermosetting resin pipe (CIPP) liner, using the pulled in place installation of glass reinforced plastic (GRP), per ASTM F2019. This specification is intended to identify the minimum requirements of the County.

**2733.01.03 Submittals After the Notice of Award.** The Contractor shall have ten (10) working days after the date of award to submit the following information to the County for review and approval. Failure to do so may be grounds for termination of contract. This shall be in addition to the information required pursuant to Section 2731.

- (a) Certification documentation concerning date, type of resin, mixing ratio, liner thickness, temperature, type of glass fiber, liner type, manufacturing date, and last installation date.
- (b) Certification from resin manufacturer regarding approval of resin dye quantity and type.
- (c) Information on the maximum allowable tensile stress for the tube, from the manufacturer.
- (d) Shop drawings and product data to identify materials of construction (including resins, catalysts, fabric, etc.), tube material manufacturer, location of the manufacturing facility, location of the wet-out facility, etc. All GRP CIPP liner shall be manufactured from this designated wet-out facility throughout the entire Contract unless specifically approved otherwise by the County in writing. Multiple wet-out facilities shall not be allowed.
- (e) A complete description of the proposed wet-out procedure for the proposed technology.
- (f) Provide data on the maximum allowable stresses and elongation of the tube during installation and the means in which the Contractor will monitor stress and elongation.
- (g) Description of monitoring system for proposed curing method.

**2733.01.04 Submittals After Notice to Proceed.** The Contractor shall submit the information listed below, after the Notice to Proceed, for review and approval. This shall be in addition to the information required pursuant to Section 2731.

- (a) If requested, wet-out forms with detailed information including, but not limited to, roller gap settings, type of resin, volume and mixing ratios, type of glass fibers, wet out start times and dates, wet out locations, finish times, gel times, resin injection locations, and any other pertinent data documenting the wet-out for each section of GRP CIPP liner manufactured.
- (b) GRP CIPP liner curing reports documenting the liner installation for all sewer segments. The GRP CIPP liner reports shall document all details of liner installation, including manhole numbers, street names/sewer location, project number, date, time, temperature, curing temperature, curing time, GRP CIPP liner thickness, etc. A sample report shall be submitted to the County for approval prior to the installation of any GRP CIPP lining.
- (c) A full protocol for time, rate of travel of the ultraviolet assembly, pressures, and amount of lamps in operation shall be maintained and recorded automatically from the beginning of inflation of the liner until the end of the curing. This information shall include project name, address, section, and date to clearly identify the rehabilitated section.
- (d) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the rehabilitative product manufacturer(s), manufacturer's representative or vendor as well as the Cured-In-Place Pipe (CIPP) liner installer certifying that the product(s) they are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.

**PRODUCT WARRANTY AND CERTIFICATION FORM**REFERENCE (PROJECT NAME AND CONTRACT NUMBER):-  
\_\_\_\_\_

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE REHABILITATION PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

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

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

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

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

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

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

## 2733.02 MATERIALS

- 2733.02.01 The Liner.** The liner shall generally consist of a corrosion resistant seamless fiberglass fabric tube impregnated with thermosetting (cross-linked) resin and filler material, if applicable. The fabric tubing material shall consist of at least two separate tubes made of corrosion resistant (E-CR or equivalent) glass fibers and external foils in accordance with ASTM D578. The liner system shall meet the requirements of ASTM F2019 and ASTM D5813 and shall be constructed to withstand a pulling force at least equal to the weight of the liner, tolerate circumferential changes in the pipe, withstand curing temperatures, and have sufficient strength to bridge missing pipe. The liner shall fit tightly to the internal circumference of the existing pipe and, once cured, the liner shall have a chemically inert internal flow surface. The liner shall be fabricated with an under measurement of at least 1% of the host pipe's nominal diameter. The liner shall also have the ability to over-expand by at least 1% of the host pipe's diameter to insure that when the liner is installed, it will neatly fit the internal circumference of the pipe to be lined. All GRP CIPP linings shall be from a single manufacturer. The cured liner shall have a 50-year life span.
- 2733.02.02 External Foils.** The tube-shaped plastic foils shall make up the outer one or more layers of the liner. The foils shall be moisture resistant, light proof (in the case of UV cure), and impermeable to styrene (when a styrene based resin is used).
- 2733.02.03 Calibration Hose.** The calibration hose is the tube shaped impermeable bladder that serves as the innermost layer of the GRP CIPP liner. During the cure of the liner, the calibration hose shall be inflated, pushing the liner firmly against the existing pipe. The calibration hose shall be a tube of either plastic foil or resin-saturated coated felt that is resistant and impermeable to moisture, styrene (when styrene based resin is used), and temperatures up to 260°F while also exposed to the installation pressure used to expand the liner. Once curing is complete, the calibration hose shall be easily removed.
- 2733.02.04 Wall Thickness.** The required structural GRP CIPP wall thickness shall be designed in accordance with the guidelines in Appendix X1 of ASTM F1216. The thickness of GRP liner shall be defined as the thicknesses of all of the fiberglass layers plus the external foils. The minimum liner thickness for nominal pipe diameters of 8 to 12 inches shall be 4.0 mm. Minimum liner thickness for nominal pipe diameters of 14 to 16 inches shall be 6.0 mm. Minimum liner thickness for nominal pipe diameters of 18 inches shall be 7.0 mm. In cases where ovality exceeds 10%, or where pipes are egg or oval shaped, alternative methods of design may be considered by the Engineer. The categories of design parameters noted in Tables 2733-1, 2733-2, and 2733-3 in Section 2733, Pipe Rehabilitation by Pulled-In-Place Glass Reinforced Plastic (GRP) CIPP Method (Per ASTM F2019) shall be used, unless otherwise directed by the County. The selected thicknesses shall be uniform for each pipe diameter and shall be based on the thickest, most conservative design wall thickness calculated for each diameter.
- 2733.02.05 Common Design Parameters:** Design inputs generally considered to be the same from site to site for a particular project are provided in Table 2733-1.



Table 2733-1 Common Design Parameters	
Safety Factor <sup>(1)</sup>	2.0
Soil Modulus <sup>(2)</sup>	700 psi
Soil Density <sup>(3)</sup>	120 pcf

Notes Table 2733-1:

1. The safety factor may be reduced to 1.5 at the discretion of the Engineer, normally in the case where there is accurate and detailed information known about the existing pipe and soil conditions.
2. In the absence of site-specific information, the County assumes a soil modulus of 700 psi.
3. In the absence of site-specific information, the County assumes a soil density of 120 pcf.

**2733.02.06**

**Site Specific Parameters:** The information listed in Table 2733-2 is specific to each manhole to manhole run of pipe. The Contractor shall use for design the information provided by the County and information the Contractor collects during site visits for each manhole to manhole run.

Table 2733-2 Site-Specific Design Parameters	
Ovality	Notes 1, 2
Ground Water Depth Above Invert	Notes 1, 3
Soil Depth Above Crown	Note 1
Live Load	Notes 1, 4
Design Condition (Fully Deteriorated)	Notes 1, 5
GRP CIPP Thickness	Notes 1, 6, 7

Notes Table 2733-2:

1. Design thicknesses and complete site-specific designs, as stated herein, in accordance with ASTM F1216 (**Appendix X1**), shall be submitted after the Notice of Award.
2. The Contractor shall estimate the ovality by viewing the DVDs/videotapes, data and notes provided in the Contract Documents, and any other information provided by the County. If DVDs/tapes are not available, and the Contract Plans do not state otherwise, the Contractor

shall assume an ovality of 3%. In cases where the ovality exceeds 10%, the Contractor may consider employing alternative design methods (such as beam design methods) to determine the pipe thickness, at no additional cost to the County.

3. In the absence of accurate water table information or high water elevation observed during the site visit (stream, ponds, etc.), the Contractor shall assume a seasonal groundwater elevation variation of 0 feet below the ground surface.
4. GRP CIPP is subjected to traffic live loads as calculated by AASHTO Standard Specifications for Highway Bridges, HS20-44 Highway Loading.
5. The Contractor shall assume the pipe segments are fully deteriorated.
6. Thicknesses specified (designed by the Contractor and approved by the County) are the final, in-ground thicknesses required. Measured sample thicknesses will not include polyurethane or polyethylene coatings, any layer of the tube not fully and verifiably impregnated with resin, or any portion of the tube not deemed by the County to be a structural component of the composite.
7. The Contractor must consider any factors necessary to ensure the final, cured-in-place pipe thickness is not less than specified (designed by the Contractor and approved by the County) above. These factors include any stress applied to the material during transportation, handling, installation and cure; the host pipe's material type, condition, and configuration; weather (including ambient temperature conditions); and any other factors which are reasonably expected to be found in existing sanitary sewer systems.

**2733.02.07 Initial Structural Properties.** Once cured, the GRP CIPP liner shall have the initial structural properties shown in Table 2733-3.

<b>TABLE 2733-3</b>			
<b>GRP CIPP INITIAL STRUCTURAL PROPERTIES<sup>(1)</sup></b>			
<b>PROPERTY</b>	<b>TEST METHOD</b>	<b>MINIMUM VALUE, PSI</b>	<b>(MPA)</b>
Flexural Strength	D790	6500 <sup>(2)</sup>	45
Flexural Modulus	D790	725000	5000
Tensile Strength	D3039/D3039M	9000	62
	D638	9000	62

## Notes Table 2733-3:

1. The values in Table 2733-3 are for test results on field specimens. The Contractor shall obtain information on the material's long-term structural properties from the manufacturer.
2. The value indicates minimum strength both in the circumferential and longitudinal direction.

**2733.02.08 Resin Content.**

- (a) The resin system shall be compatible to the installation process. The system shall consist of one of the following:
  - (1) A chemically resistant polyester or vinyl ester thermoset (heat or UV light cured) resin and catalyst system.
  - (2) An epoxy resin and hardener.
- (b) The initiating temperature for heat cured resin systems shall be less than 180°F.
- (c) When using a UV light cured resin system, a photo-initiator system must be added to the resin before the liner is impregnated.
- (d) Dye shall be added to resins to improve visual inspection of the cured liner. The types and quantities of dyes added shall have prior approval from resin manufacturer.

**2733.02.09 Chemical Resistance:** The chemical resistance of the cured inner surface of the resin/fabric matrix shall be tested in accordance with ASTM D543. The result of exposure to the chemical solutions listed in Table 2733-4 shall produce loss of not more than 20 percent of the initial physical properties when tested in accordance with ASTM D543 for a period of not less than 1 year at a temperature of 73.4 °F plus or minus 3.6 °F. For applications other than municipal wastewater, conduct chemical resistance tests with actual samples of the fluid to be transported in the pipe and in accordance with procedures approved by the County. The cured liner shall also be chemically and physically resistant to external exposure of soil bacteria, moisture, roots, and chemical attack that may be due to material in the surrounding ground.

<b>TABLE 2733-4</b> <b>CONCENTRATIONS OF CHEMICAL SOLUTIONS</b> <b>FOR CHEMICAL RESISTANCE TEST</b>	
<b>CHEMICAL SOLUTION</b>	<b>CONCENTRATION, %</b>
Tap Water (pH 6-9)	100
Nitric Acid	5
Phosphoric Acid	10
Sulfuric Acid	10
Petroleum Hydrocarbon Based Fuels (e.g. Gasoline, diesel, etc.)	100
Vegetable Oil <sup>1</sup>	100
Detergent <sup>2</sup>	0.1
Soap <sup>2</sup>	0.1
Domestic Sewage*	100

<sup>1</sup>. Cotton seed, corn, or mineral oil

<sup>2</sup>. As per ASTM D543

\* Contractor to include a written statement that their material and resin combination has been successfully installed in the United States and is chemically resistant to domestic sanitary sewage.

## **2733.02.10 Manufacture Information.**

- (a) The Contractor shall deliver the uncured resin impregnated liner system to the site. Unless otherwise approved by the County, the liner shall not be impregnated at the site. The application of the resin to the fabric tube (wet-out) shall be conducted under factory conditions and the materials shall be fully protected against UV light, excessive heat, and contamination at all times. The equipment used to impregnate the liner with resin shall contain devices that properly distribute the resin. The liner system shall be impregnated with resin not more than 72 hours before the proposed time of installation and stored out of direct sunlight. Continuously monitor liner materials during transport and storage with a temperature recorder and data storage. If requested, the Contractor shall furnish the County with the recorder readings before installation. Material that is exposed to temperatures outside of the manufacturer's limits will be rejected. The Contractor shall provide all appropriate transport, handling and protection equipment including refrigerated, or otherwise suitably cooled, transport equipment in accordance with the manufacturer's requirements.
- (1) Heat Cure: The uncured resin impregnated liner system shall be stored at a temperature within the manufacturer's acceptable range. During the transportation of the resin impregnated liner, a

data logger shall continuously record the time and temperatures experienced by the liner.

- (2) UV Light Cure: The impregnated liner shall be stored, transported, and installed according to the manufacturer's recommendations. During this time, the impregnated liner shall only be subjected to temperatures between 45°F and 95°F.
- (b) All fabricating and Contractor testing shall be carried out under cover and no materials shall be exposed to the weather until they are ready to be inserted. All materials should be protected from the weather and exposure to ultra-violet light as practicable during the manufacture and installation process.
- (c) Each liner shall be accompanied by suitable documentation indicating date, manufacturer, trade name, time and date of manufacture, liner thickness, number of layers, diameter, length of liner, resin type, resin volume, mixing ratio, temperature, type of glass fiber, liner type, catalyst, relevant batch numbers, storage limitations – with the last allowable installation date accompanying the impregnated tube - and requirements, etc. and this information shall be submitted to the County.

### **2733.03 CONSTRUCTION REQUIREMENTS**

#### **2733.03.01 Lining Procedures.**

- (a) The Contractor will not be compensated for liners ordered without confirmation of length and field conditions.
- (b) The liner shall be installed in accordance with ASTM F2019.
- (c) The Contractor shall conduct operations in accordance with applicable OSHA standards, including those safety requirements involving work on an elevated platform and entry into a confined space. Take suitable precautions to eliminate hazards to personnel near construction activities when pressurized air is being used.
- (d) All service locations shall be measured for location prior to liner installation. All service connection measurements and the clockwise position of the openings shall be recorded in a log to aid in the reinstatement of service connections after lining. The approximate locations of identified active service taps are shown on the Contract Drawings; however, the Contractor shall determine the exact location and number of service connections by the dye test method or other methods approved by the County. The Contractor shall accurately field locate existing service connections, whether in service or not. For rehabilitated lines, the Contractor shall use existing service locations to reconnect service lines to new liner, unless otherwise specified on the Contract Drawings or directed by the County. During the line preparation and work operation, inactive sewer house connections shall not be cut but shall be left lined over, unless directed by the County.

**(e) Thermocure**

- (1)** Temperature monitoring systems are required for all 18" or larger sewer, any sized sewer in locations with significant known groundwater infiltration, or if the pipe is within 50 feet of stream, river or lake. This system shall be installed at the invert of the pipe and be installed per the manufacturers recommended procedures. The temperature sensors shall be placed at intervals as recommended by the sensor manufacturer. Additional sensors shall be placed where significant heat sinks are likely or anticipated. The sensors, if installed, shall be monitored by a computer using a tamper proof data base that is capable of recording temperatures at the interface of the liner and the host pipe. Temperature monitoring systems shall be Zia Systems, Vericure by Pipeline Renewal Technologies, or approved equal.
- (f)** In the event of insertion being delayed after impregnation by unexpected site conditions but prior to the start of the insertion process, the Contractor shall store, at his own cost, the liner, for a further period of at most 72 hours, for use when conditions allow.
- (g)** Installation through Manholes. The invert shall be continuous and smooth through all manholes. If a liner is installed through a manhole, the bottom portion of the liner shall remain and the bench of the manhole shall be grouted and shaped as necessary to support the liner. If the liner terminates on either side of a manhole, the invert shall be built up to remove any flow restrictions and to form a continuous invert through the manhole. The cost of this work shall be included in the unit price bid for the liner.
- (h)** The finished pipelining shall be continuous over the entire length of an insertion run between two manholes or structures and be as free as commercially practicable from visual defects such dry spots, lifts, and delamination. The lining shall be impervious and free of leakage from the pipe to the surrounding ground or from the ground to the inside of the lined pipe. Defects that will impede flow or maintenance equipment will not be permissible. Pinholes and leaking patches will not be allowed. If found they must be repaired, per the manufacturer's recommendations, at the Contractor's expense.
- (i)** The inner surface shall be free of cracks and crazing with smooth finish and with an average of not over two pits per 12 inch square, providing the pits are less than 0.12 inch in diameter and not over 0.04 inch deep and are covered with sufficient resin to avoid exposure of the inner fabric. Some minor waviness, that in the County's opinion will not appreciably decrease the flow characteristics or be the cause of a possible blockage, shall be permissible.

**2733.03.02 Installation.**

- (a) A power winch shall be used to pull the wet-out liner through an exiting manhole into place within the pipe. The Contractor shall use one of the following installation methods:
  - (1) Sliding Foil and Winch Cable: Once the pipe is properly cleaned according to Section 2741, Sewer Line, Lateral, and Manhole Cleaning, a sliding foil and winch cable shall be pulled through the line. The sliding foil shall cover up to half of the circumference of the pipe and it shall be held in place by the plug used to block the flow in the manhole.
  - (2) Pulling Head or Pulling Manifold and Invert Roller: The liner shall be connected to the winch cable by either a pulling head or pulling manifold. The addition of a swivel connection to the pulling cable can be used to prevent the liner from twisting. An invert guide roller in the winch manhole shall be used to bring the pulling head or manifold into the manhole during the pulling operation.
    - i. A pulling head can be created by making the end of the liner into a loop. Once the pulling operation is complete, the pulling head shall be dismantled.
    - ii. If a pulling manifold is used, care shall be taken when it is attached to the end of the liner and the Contractor shall assure that the strength of the connection can adequately transfer the pulling force. The manifold shall be mounted airtight into the calibration hose.
- (b) The liner shall be pulled at the speed recommended by the manufacturer.
- (c) The liner shall be pulled carefully into place. Care shall be taken when pulling the liner through any obstacles or friction within the pipe. The liner shall not be damaged as a result of the pulling operation.
- (d) Elongation of the tube liner shall be less than 2% of the overall length after the pulling operation is complete.
- (e) The liner shall extend 1 to 2 ft into the access point and an inlet manifold shall be mounted to it.
- (f) Temperature sensors shall be located on the outside of the liner about 1 ft from the access and termination points.
- (g) For a steam cure, there shall be manifolds connected at both the inlet and outlet air/steam hoses. Temperature and pressure sensors shall be located on the inlet manifold.

**2733.03.03 Curing Methods.** The liner shall be cured using one of the following methods:

**(a) Steam Cure**

- (1)** The installation equipment shall include an inlet air/steam hose, air compressor, acceptable steam source, and monitoring and control equipment in accordance with the manufacturer's recommendations. There shall also be an outlet air/steam hose mounted to a gauge station that has a pressure adjustment valve, temperature gauge, and pressure gauge.
- (2)** The liner shall be inflated with adequate pressure to hold the liner tightly against the pipe wall. Once the correct pressure is reached, the outlet valve shall be used to maintain this pressure.
- (3)** Once the liner is inflated, the temperature shall be adjusted according to the manufacturer's recommendations. The temperature shall be monitored by the sensors that are attached to the liner until the recommended temperature is reached. Time, temperatures, and pressures shall be recorded continuously throughout the curing process and submitted to the County at the end of the installation. This log will insure that the proper curing of the liner was carried out.
- (4)** If recommended by the manufacturer, a post curing steam shall be conducted in order to fully develop the chemical resistance and resin strength of the liner.
- (5)** The Contractor shall gradually cool the liner down by replacing the steam in the line with air and water, if necessary. The temperature, measured by the sensors attached to the liner, shall be lowered to 90°F or as recommended by the manufacturer.
- (6)** Once the cure is complete, the manifolds and then the calibration hose shall be detached and removed from the line.

**(b) Ultraviolet Light Cure**

- (1)** The installation equipment shall include an inlet air hose, air compressor, and a multi-lamp ultraviolet curing assembly in accordance with the manufacturer's recommendations.
- (2)** A camera must be located on the UV light assembly to enable the video inspection of the liner and to insure that the liner has been properly inflated and any liner problems can be identified before curing begins.
- (3)** The liner shall be expanded under pressure until tightly pressed against the wall of the pipe.



- (4) The multi-lamp ultraviolet curing assembly shall be tuned or optimized to the resin's photo initiator system or the photo initiator system with the curing system.
- (5) Once the ultraviolet curing assembly and the resin's photo initiator system are in tune, the ultraviolet curing lights shall be drawn through the pipe. Sufficient pressure shall be applied to continuously keep the liner tight against the pipe wall during the curing process. The speed at which the ultraviolet curing assembly travels through the pipe shall be the calculated speed required for cross-linking/polymerization of the resin.
- (6) Time, rate of travel of the ultraviolet assembly, pressures, and amount of lamps in operation shall be recorded continuously from the beginning of inflation until the curing is complete and submitted to the County at the end of the installation. The log shall include project name, address, section, and date. This log will insure that the proper curing of the liner was carried out.

#### **2733.03.04      Testing.**

- (a) The Contractor shall collect representative coupon samples/specimens as described below. At a minimum, a coupon shall be collected for each pipe diameter that is lined and each liner thickness, unless otherwise specified in writing by the County. For every 1,000 linear feet of GRP CIPP liner installed for the first 10,000 linear feet, the Contractor shall perform sampling and testing at his expense and shall supply results to the County. The frequency of testing may be reduced as approved by the County after sufficient tests are performed to verify the GRP CIPP liner design, production, and installation procedures. Likewise, the frequency of testing may be increased by the County and performed by the Contractor at no additional cost to the County when the required tests show that the installed GRP CIPP liner does not meet the specifications. After the 10,000 feet of acceptable test results are received, the test sample frequency can be reduced to one sample every 2,000 feet as long as samples continue to meet all minimum standards and sampling results are received in a timely manner. If a test is not passed, the lining will not be accepted. The Contractor shall stamp or mark the test pieces with the date of manufacture and batch number. These samples shall be paid for under the Pay Item for sanitary sewer rehabilitation, for the respective diameter sizes.
- (b) Testing shall be performed by an ASTM-certified independent testing laboratory. The Contractor shall submit to the County the name and location of the independent testing laboratory, a certified statement from the laboratory indicating that they are independent from and not associated with the Contractor in any way, and the ASTM certification for the independent testing laboratory.
- (c) All expenses for sampling and testing of the installed liner shall be paid for by the Contractor. The cost of all manufacturer's testing to qualify

products furnished to the project site shall be the responsibility of the Contractor.

- (d) Sampling shall conform to ASTM F2019 and the following requirements: The samples shall be cut from a section of cured CIPP at an intermediate manhole or at the termination point that shall be installed through a like diameter section of conduit or other tubular restraining means. The specimens shall allow circumferential (hoop) directions of the fiberglass reinforcement in the CIPP. Each specimen shall be at least 2" wide (axial direction of the liner, along the length) to test a representative amount of fibers if glass roving mats have been used. The samples are to be tested in a curved beam configuration where the minimum beam width is 2.0 inches.
- (e) The Contractor shall verify that the installed thickness of the GRP CIPP is within minus 5 percent and plus 10 percent of the specified thickness. An ASTM-certified independent testing laboratory shall test the samples to determine the installed liner thickness, and shall be measured in accordance with ASTM D5813. Flexural properties shall be determined in accordance with ASTM D790. The Contractor shall label and date all samples and provide to the inspector or Owner's representative the same day of the installation for shipping to the independent testing laboratory. The County shall be copied on all transmittals to the independent testing laboratory.
- (f) Should the County desire to make additional independent tests, the Contractor shall, upon request of the County, furnish any reasonable number of test pieces of raw material samples as the County may require, stamped or marked with the date of manufacture and batch number if applicable.
- (g) The test specimen shall be prepared and physical properties tested in accordance with ASTM F2019. The properties shall meet or exceed the values identified in ASTM F2019.
- (h) It is preferred that all samples be shipped to the independent laboratory the same day as installation. At the Contractor's discretion, samples may be sent in batches but in no case later than 30 days after installation. The results of the measurements for each sample shall be submitted to the County within 30 days of the sample's ship date to the laboratory. The costs for testing shall be included in the bid price for rehabilitation including the cost of all manufacturer's testing to qualify products furnished to the project site.
- (i) Any GRP CIPP lining that does not meet the specified installed strength and/or thickness requirements, regardless of the amount below the specified requirements, shall be corrected by the Contractor in a manner approved by the County at no additional cost to the County. The County's decision on how to correct the deficient GRP CIPP liner installations shall be final. Options for correcting deficient GRP CIPP liner installations that will be considered by the County include the following: removal of the

existing GRP CIPP liner and re-lining the sewer, open-cut replacement of the sewer from manhole to manhole, or re-lining the sewer with the existing GRP CIPP liner in place.

## **2733.04 MEASUREMENT AND PAYMENT**

**2733.04.01 Glass Reinforced Plastic Cured-in-Place Pipe Lining.** Measurement for payment will be the actual linear footage installed, measured along the centerline of the pipe. Length will be measured from edge of manhole to edge of manhole, unless the liner extends through a manhole, in which case the distance to and from that manhole will be measured to the center of that manhole. Payment is based on the GRP CIPP thickness required for the deepest flow line of the rehabilitated segment.

- (a) Basis of Payment.** Payment shall be made at the contract unit price bid per linear foot of pipe rehabilitated. The unit price includes all labor, incidentals, materials, resident notification, flow control, preconstruction video taping, confined space entry and equipment, sediment and root removal, debris collection and disposal, removal of protruding service connections (protruding less than ½ inch into the main pipeline), re-establishing lateral service connections, dewatering, traffic control, erosion and sediment control, excavation pits, pre- and post-cleaning, pre and post-installation CCTV inspection including submission of videos and television logs, warranty inspections, sealing the liner in the manholes and at service connections, required compliance tests, initial and general backfill and compaction, borrow for backfilling, offsite disposal of unsuitable material, pavement removal and disposal, site cleanup, and all other rehabilitation work, not included under other items, necessary to complete the rehabilitation as specified. Payment for this item does not indicate final acceptance of this item; final acceptance is contingent on the receipt, review, and approval of the Final Acceptance TV Inspection described in Section 2742.

**2733.04.02 Mandatory Utilization of Epoxy Vinyl Ester Resin** where ordered for use in certain, specific industrial waste areas or areas with high temperature waste will be the actual per inch of nominal pipe inside diameter and per linear foot of GRP cured-in-place pipe lining installed using the epoxy vinyl ester resin.

- (a)** This item shall only be paid, where specifically ordered in the work order, in addition to the applicable unit prices paid under the sewer rehabilitation items, whether or not the Contractor is otherwise utilizing the epoxy vinyl ester resin. Each unit price bid will be full compensation for all additional costs of utilizing the epoxy vinyl ester resin. The County will not pay for this item when the Contractor elects the use of epoxy vinyl ester resin, without specific direction to do so.

END OF SECTION

## SECTION 2734

### PIPE REHABILITATION BY PIPE BURSTING

#### 2734.01 DESCRIPTION.

**2734.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2734.01.02 Description of Work.** The Work covered in this section specifies the method or process to include all labor, materials, tools, equipment and incidentals necessary to provide for the complete rehabilitation of deteriorated sanitary gravity sewer by pipe bursting. Pipe bursting is the construction technique of replacing an existing, underground pipe system in situ by fracturing a pipe and displacing the fragments outwards into the surrounding soil while a new pipe is drawn in to the annulus left by the expanding operation. The process can be either by pneumatic, hydraulic or static pull methods, using a conically shaped bursting head to break out the old pipe. The rear of the bursting head is connected to the new pipe, while its front is connected to a cable or pulling rod. The bursting head and the new pipe are launched from the insertion pit, and the cable or pulling rod is pulled from the receiving pit. The replacement pipe is either pulled or pushed into the bore. The replacement pipe shall not be greater than two pipe diameters larger than the existing pipe.

**2734.01.03 Safety.** Refer to Section 2731, Pipe Rehabilitation – General Requirements, Paragraph 2731.01.14.

#### 2734.01.04 Contractor Experience.

- (a) The Contractor and personnel performing the pipe bursting shall be trained by the pipe bursting equipment manufacturer in the use of the equipment. The Contractor and pipe bursting personnel shall be certified by the pipe bursting system manufacturer in operating bursting head, installing the proposed replacement pipe, and operating and maintaining all the pipe bursting equipment.
- (b) If high density polyethylene (HDPE) pipe is used, the Contractor and personnel performing the fusing of the HDPE pipe shall be trained by the thermal fusion equipment manufacturer in the use of the equipment for thermal butt-fusion of HDPE pipe. The butt-fusion method for pipe jointing shall be carried out in the field by certified operators with prior experience in fusing HDPE pipe with similar equipment using proper jigs and tools per standard procedures outlined by the pipe manufacturer. HDPE pipe shall conform to the requirements of this section.
- (c) All pipe bursting Contractors must have a minimum of 5,000 feet of pipe bursting experience as a prequalification for this project.

#### 2734.01.05 Product Experience.

- (a) The pipe bursting system must have been used successfully on a minimum of 50,000 linear feet of sewer mainline.

#### **2734.01.06 Submittals.**

After receiving the Notice of Award the low bidder shall submit the following information. The project shall not be initiated until all of the listed information has been reviewed and approved by the County:

- (a) Prior to commencement of the construction, the Contractor shall submit to the County a pipe bursting plan which shall include:
  - (1) Seismic monitoring and pre-bursting structural inspection procedures
  - (2) Methodology statement that describes the operation of the bursting tool and the winching equipment
  - (3) Site layout plan, including storage areas, equipment set up areas, construction staging areas and locations of all major supporting equipment
  - (4) Insertion and receiving pit locations
  - (5) Service line replacement
  - (6) Bursting distances and directions of the bursts to be performed
  - (7) Bypass pumping plan per Section 2740, including continuous service provisions
  - (8) Service outage and reinstatement schedule
  - (9) Pipe/manhole anchors
  - (10) Type of lubricants and MSDS (if used)
  - (11) Maximum insertion rates and forces calculations

The plan shall be carefully followed during installation. Any proposed changes in installation procedures shall require submittal of revised procedures and acceptance by the County.

- (b) Contractors using pneumatically operated equipment will provide the County with data measuring vibrations from bursting head during installation.
- (c) The bursting head shall not pass within 8 feet of a sensitive surface structure; or, within 3 feet from buried pipes or three pipe diameters of the new pipe, whichever is greater, unless special measures are taken to protect the existing structures and are approved by the County. Additional

approval(s) from the private utility companies may be required by the Contractor.

- (d) The Contractor shall carry out operations under this section in strict accordance with all applicable OSHA Standards. Particular attention is drawn to those safety requirements involving Work with entry into a confined space. It shall be the Contractor's responsibility to comply with OSHA Standards and Regulations pertaining to all aspects of the Work.
- (e) Written verification from the manufacturer that the contractor is a licensed installer of the manufacturer's system.
- (f) Written verification of training by the pipe bursting system manufacturer utilized stating that the operators have been fully trained in the use of the pipe bursting system by an authorized representative of the equipment manufacturer.
- (g) Written verification by the pipe supplier of training in the proper method for handling, joining, and installing the new pipe.
- (h) Documentation of Contractor's experience. Documentation to substantiate the Contractor's experience of at least 5,000 feet of pipe bursting shall be provided. This shall include references for all jobs within the last three years that were either completed or under construction using pipe bursting. References for a minimum of ten jobs shall be provided. Information provided shall include a description of the job (including product and method used and related diameters and footages), the location of the job, the value of the job, the Owner, and the Owner's contact for the job including name, title, address, and phone number.
- (i) Documentation of Product experience. This shall include references for jobs completed with the proposed pipe bursting method. The jobs submitted shall show that at least 50,000 linear feet of the proposed method has been used by the Contractor or other Contractors. The documentation shall include at least ten jobs which have been completed, preferably within the last two years. Information provided for each job shall include a description of the job (including pipe bursting method and replacement material used and related diameters and footages), the location of the job, the value of the job, the Owner, and the Owner's contact for the job including name, title, address, and phone number.
- (j) The Contractor shall provide logs verifying insertion rates and forces did not exceed the submitted calculations.
- (k) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the pipe manufacturer(s), manufacturer's representative or vendor as well as the (replacement) pipe installer certifying that the product(s) they are

proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.

**PRODUCT WARRANTY AND CERTIFICATION FORM**

REFERENCE (PROJECT NAME AND CONTRACT NUMBER):-  
\_\_\_\_\_

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)



**2734.01.07** The on-site person-in-charge shall have good verbal communication skills and shall be able to communicate clearly with the County's inspectors.

**2734.02 MATERIALS.**

**2734.02.01 High Density Polyethylene (HDPE) Pipe.**

- (a) HDPE pipe shall be in accordance with AWWA C906 and shall have a nominal DIPS (Ductile Iron Pipe Size) outside diameter unless otherwise specified. The nominal size and SDR of the pipe shall be as specified on the Drawings. The minimum wall thickness shall be SDR 17.
- (b) All HDPE fittings shall be molded from PE3408, following ASTM F412, polyethylene resins in accordance with the requirements of ASTM D3035 and manufactured to comply with ASTM F714 specifications. The pipe shall be marked in green to identify that it is a sewer pipe. Butt fusion fittings shall comply with ASTM D3261 requirements.
- (c) The polyethylene shall have a minimum cell classification of PE 345464C following ASTM D3350.
- (d) The Hydrostatic Design Basis shall be obtained according to ASTM D2837.
- (e) Pipe sections shall be joined on the job site above ground into continuous lengths by the butt-fusion method, which shall be performed in strict accordance with the manufacturer's recommendations. The Contractor shall provide enough extra pipe length to allow relaxing and finishing off at manholes. The butt-fusion equipment used in the joining procedures shall be capable of meeting all conditions recommended by the pipe manufacturer, including, but not limited to, temperature requirements of 400° F, alignment, and 75 psi interfacial fusion pressure. Butt-fusion joining shall be 100% efficient and shall provide a joint weld strength equal to or greater than the tensile strength of the pipe. Socket-fusion, extrusion welding or hot gas welding of HDPE shall not be used for pressure pipe applications. Flanges, unions, grooved-couplers, transition fittings, and some mechanical couplers may be used to mechanically connect HDPE pipe without butt-fusion, if specified on the Drawings and approved by the manufacturer.
- (f) Approved manufacturer's include:
  - (1) Performance Pipe, Division of Chevron Phillips Chemical Company, LP;
  - (2) Rinker Materials Poly Pipe Division;
  - (3) Or approved equal.

**2734.02.02      Fiberglass Reinforced Polymer (FRP) Pipe and Polymer Concrete Jacking Pipe.**

- (a)      Fiberglass Reinforced Polymer Pipe shall be sized, manufactured, and marked according to ASTM D3262.
- (b)      Polymer Concrete Pipe shall be sized, manufactured, and marked according to ASTM D6783.

**2734.03            CONSTRUCTION REQUIREMENTS.**

**2734.03.01      Pre-Installation Preparations.**

- (a)      Coordination with the County: The Contractor shall provide a minimum of seven days advanced notice to the County, prior to initiating the work specified.
- (b)      Notification of Residents: Prior to starting Work, it is the responsibility of the Contractor to notify all residents that could be affected by the work. This notification shall consist of written information and verbal communication that outlines the pipe bursting process and timing of the project. The written information shall be delivered to each affected home or business at least 72 hours prior to the start of the pipe bursting, and at minimum shall describe the work, schedule, how it affects the home/business, the project manager's name, crew foreman's name, emergency contact number, and detail how to identify crew members/vehicles. The Contractor shall communicate verbally with the homeowners/business owners the day prior to the beginning of work being conducted on the section relative to the homeowners/business owners. The system being replaced is an active system and service must be maintained during the course of construction.
- (c)      The Contractor shall implement necessary erosion and sediment control measures prior to initiating any work. These measures shall be in accordance with the most current federal, state, and local regulations.
- (d)      The utilities must be marked by "Miss Utility" prior to construction layout.
- (e)      The Contractor shall provide water and sewer to affected property owners in the event of extended service interruption, at no additional cost to the County.
- (f)      When necessary and approved by the County and all resident and commercial properties affected, the Contractor shall install appropriate access roads. The access road and all related items shall be removed at the end of the job. Final payment will not be made until the site is restored to original or better conditions, including removal of all gravel.
- (g)      The actual sizes, lengths and materials of the pipes to be burst and replaced shall be as indicated on the plans, but shall be verified by the Contractor

prior to commencing with the work, including prior to ordering of materials.

**(h) Site investigation information.**

- (1)** The Contractor shall carefully review the existing underground network of utilities as shown on the Drawings, surface structures, and geotechnical conditions to provide an installation consistent with existing and probable soil conditions.
- (2)** The Contractor shall perform structural inspections of nearby houses and other structures at least 20 days prior to the start of pipe bursting and excavation of entry/exit pits. Submit the list of structures/residences to inspect to the County for approval.
  - i. Notify residents adjacent to the work and the next nearest resident and request permission to enter the dwelling to perform a pre-bursting survey. If no response is received, notify the County.
  - ii. When access is permitted, survey the structures and dwellings to accomplish the following:
    - a. Determine the physical condition of the structure and document with photographs and sketches any existing damage and other factors, both inside and outside, that could be affected by the bursting.
    - b. Note the location, size, length, thickness, displacement, etc. of any cracks or structural deficiencies.
    - c. Assess the condition of pipes, cables, wells, and pavements.
    - d. Conduct the survey in the presence of the County and the property owner.
  - iii. Submit a written report for each surveyed structure to the Engineer, including diagrams, measurements and photographs. Each photograph will be labeled to identify the structure (address), location and description of deficiency and the date the photo was taken.
  - iv. Reports shall be prepared by a Professional Engineer licensed in Maryland.

- (i) Pre-Installation Television Inspection.** It shall be the responsibility of the Contractor to video (CCTV) inspect the pipe immediately before pipe bursting to assure that existing pipe conditions are acceptable for pipe bursting, and to locate all active service line connections in accordance with Section 2742 - Television Inspection.

(j) **Sags.** If pre-installation video (CCTV) inspection reveals a sag in the existing pipeline that is greater than one-half the diameter of the existing pipe, it shall be the County's responsibility to determine the method to remedy the existing conditions. The Contractor shall take necessary measures to eliminate these sags, as directed by the County including:

- (1) Replacing the pipe by digging a sag elimination pit and bringing the bottom of the pipe trench to a uniform grade in line with existing pipe invert, or
- (2) By other measures acceptable to the County.

(k) **Pipe Jointing.**

(1) HDPE Pipe.

- i. Sections of polyethylene replacement pipe shall be assembled and joined on the job site above the ground. Jointing shall be accomplished by the heating and butt-fusion method in strict conformance with the manufacturer's printed instructions and with this section.
- ii. These joints shall have a smooth, uniform, double rolled back bead made while applying the proper melt, pressure, and alignment. It shall be the sole responsibility of the Contractor to provide an acceptable butt-fusion joint. All joints shall be made available for inspection by the County before the insertion. The replacement pipe shall be joined on the site in appropriate working lengths near the insertion pit.
- iii. Data loggers shall be used to record length of heating, fusing and cooling time, temperature, and pressure of each joint. The resultant data shall be submitted to the County upon request.

(2) FRP Pipe and Polymer Concrete Jacking Pipe.

- i. Pipe sections shall be joined according to ASTM D4161 and in strict accordance with the manufacturer's recommendations. The two plain ends of pipe shall be joined using a butt joint with one of the following:

Laminated wrap

Flange with flat face gasket

Mechanical coupling

Full circle elastomeric seal clamp

Polymer molded coupling

- ii. Threaded joints will not be allowed.
- iii. The joint shall be designed such that the loss of a compression ring will not cause misalignment of the joint, leakage, or root intrusion.

(l) **Flow Control.** When required for acceptable completion of the pipe bursting, the Contractor shall provide for continuous sewage flow around the section(s) of pipe designated for the installation of replacement pipe. Bypass Pumping shall be performed in accordance with Section 2740-Flow Control.

(m) **Manhole Preparation.** Insertion and receiving holes from manholes must be enlarged to accept the new pipe as required.

**2734.03.02 Pipe Bursting.** In general, the bursting operation shall be as follows, unless otherwise approved by the County prior to construction:

- (a) Isolate the existing system and excavate insertion, receiving and service lateral pits.
  - (1) Pits shall be strategically located along the alignment of the pipe to be burst to minimize the quantity of pits.
  - (2) Locate pits where interference to vehicular traffic and inconvenience to the public is minimized.
  - (3) Prevent damage to adjacent areas during bursting process.
  - (4) Provide seismic monitoring along length of insertion and within 100' of installed pipe segment.
  - (5) The duration that pits are open shall be kept to a minimum.
  - (6) Pit locations shall consider locations of existing and proposed valves, fittings, services, and isolating sections of the existing system to minimize service interruption.
  - (7) Service pits shall be required to install service connections, fittings and reconnect the newly installed pipe to the existing system.
  - (8) All pits shall be prepared and shored in an OSHA-approved manner.
  - (9) The equipment shall have sufficient force to burst the existing pipeline, but not excessive to deform the replacement pipe.

- (10) The installation shall not exceed the approved submittal insertion rate or force at any time. Maintain logs verifying rate and force did not exceed submitted calculations. The Contractor shall provide logs to the County for review.
- (11) Use approved lubricant to ease installation friction. Match lubricants to soil and insertion conditions.

**(b) Equipment Installation.**

- (1) The static rod and cable pull machines shall be properly braced to resist the horizontal force necessary for bursting operations, including proper structural capabilities.
- (2) The insertion pit must be large enough to allow the pipe to be inserted without overstressing the new pipe in bending. Pipe manufacturer's bending radius limitations must be adhered to.
- (3) When the winch and pulling cables are used to pull the bursting tool through the pipe, place the winch into the receiving pit and pull the cable through the existing pipe and attach to the front of the bursting unit in the insertion pit.
- (4) When rigid pulling rods are used, the rods shall be threaded from the receiving pit through the existing pipe to the pipe insertion pit and attached to the bursting head.

**(c) Bursting Operation.**

- (1) An authorized representative of the pipe bursting system manufacturer shall be on site during all bursting operations.
- (2) Bursting head shall be remotely controlled.
- (3) Winch and Cable Method
  - i. Bursting of the old pipe shall be performed as a continuous action providing constant tension to the bursting head when the winch and cable method is used.
  - ii. The Contractor shall provide a system of guide pulleys and bracing at the receiving pit to minimize cable contact with the existing pipeline between the insertion and receiving pits.
  - iii. Trench shoring supports in the insertion pits shall remain completely separate from the winch boom support system. The supports shall be designed such that the winch support cable does not come in contact with them.
- (4) Rigid Rod Method

- i. When rigid rods are used as a pulling unit, the bursting operation may be temporarily halted to unthread and remove each rod section from the pit.
- (5) Continue this process until the bursting head is pulled completely back into the receiving pit.
- (6) Do not drag the replacement pipe over the ground surface. Pipe shall move over rollers or slings for insertion and transportation. Pipe ends shall be capped.
- (7) If any obstruction is encountered that cannot be burst through, the Contractor shall immediately notify the County and with County approval excavate the location of the obstruction to allow the bursting to continue with the County's approval. This Work shall be performed in accordance with Section 2744 - Point Repairs.
- (8) If the Contractor damages any existing utility, the Contractor shall immediately inform the utility owner of the location and the nature of the damage. The Contractor shall allow the utility owner time to conduct the necessary repairs prior to continuing the bursting operation. Damages to properly marked utilities and any related delays will be the financial responsibility of the Contractor.
- (9) If surface heave or subsidence occurs, the Contractor shall repair the impacted area(s) to the satisfaction of the County, as appropriate.
- (10) Remove irregular internal bead projections that are not uniform and rolled-back from butt-fused joints.
- (11) The Contractor shall remove and replace improperly burst sewer mains at no additional cost to the County as required as directed by the County.
- (d) Relax Period
  - (1) The installed pipe shall be allowed the manufacturer's recommended amount of time, but not less than four (4) hours, for cooling and relaxation due to tensile stressing prior to any cutting and trimming replacement pipe or making any manhole connections.
  - (2) If replacement pipe exhibits retraction, at end of relax period and after sealing at the manhole, anchor pipe at manholes.
  - (3) After relax period, cut and trim replacement pipe 3 inches inside upstream and downstream manholes.
- (e) Sewer Service Laterals and Reconnections

- (1) Existing service connections shall be located before initiating sewer main replacement operations. Service laterals shall not be reconnected to the new sewer line until replacement and testing are completed, and not less than the period addressed in Paragraph 2734.03.02(d) above, after completion of the pipe bursting procedure. Any services remaining off line for an extended period of time, or any connections as deemed necessary by the County to protect the customer, shall be bypass pumped until such time that they can be reconnected.
- (2) Connection of the existing service laterals to the new sewer main shall be accomplished by use of the watertight compression-fit service connection as discussed in Section 2751 - Sanitary Sewer House Connection Reinstatement and Lateral Replacement. The service connection shall be specifically designed for connection to the sewer main material being installed.

#### **2734.03.03 Sealing and Benches in Manholes.**

- (a) Following the manufacturer's recommended, but no less than the minimum 4-hour relaxation period identified above, the annular space in the manhole wall shall be sealed.
- (b) The replacement pipe shall be installed with a tight fitting seal with the existing or new manhole. This new connection shall follow the Baltimore County Department of Public Works Standard Specifications.
- (c) The top half of the pipe within the manhole shall be neatly cut off and not broken or sheared off, at least four inches away from the manhole walls.
- (d) The channel in the manhole shall be a smooth continuation of the pipe(s) and shall be merged with other lines or channels, if any.
- (e) The replacement pipe in the manhole shall be sealed as specified above before proceeding on to the next manhole section and all manholes shall be individually inspected for replacement pipe cutoffs, benches and sealing.

#### **2734.03.04 Testing and Inspection.**

- (a) **Low Pressure Air Testing.** After a manhole-to-manhole section of sanitary sewer main has been pipe burst and prior to any service lines being connected to the replacement pipe, the pipe shall be plugged at each manhole with pneumatic plugs and a Low Pressure Air Test shall be conducted in accordance with ASTM F1417.
- (b) **Post Televising of Completed Sections.** It shall be the responsibility of the Contractor to video (CCTV) inspect the pipe immediately following reinstatement of service laterals to provide a close up view showing the completed Work, including the condition of the restored service connections. The Contractor shall provide the County the CCTV



inspection on a Digital Video Disc (DVD), in accordance with Section 2742- Television Inspection.

- (c) The Contractor shall conduct post-bursting structural inspections of the same structures/residences in accordance with pre-installation preparations.

#### **2734.03.05 Pavement Replacement.**

- (a) The Contractor shall provide permanent pavement replacement in accordance with the Contract Documents for all areas disturbed by insertion/receiving pits, service connection pits, and pipe bursting operations.
- (b) All pavement replacement shall be done by a licensed and qualified paving contractor approved by the County (if applicable).
- (c) All areas shall be backfilled with compacted material and paved at the completion of Work for each day, unless otherwise directed by the County. Pavement patches shall be in accordance with Baltimore County Department of Public Works Standard Specifications.

**2734.03.06 Cleanup.** The Contractor shall replace all curb/curb and gutter, sidewalk and driveway sections (section defined as joint to joint) directly over areas where point repairs have taken place. In unpaved areas, bring surface to grade with topsoil, grade surrounding excavation, seed and fertilize, and restore to pre-construction conditions.

#### **2734.04 MEASUREMENT AND PAYMENT.**

**2734.04.01** Elimination of sags shall be performed and paid for in accordance with Section 2744 - Point Repairs.

**2734.04.02** Sealing and benching manholes shall be incidental to the other Work. However, a separate payment shall be made if no line or manhole is rehabilitated but benches are required to be improved.

**2734.04.03 Pipe Bursting.** Measurement for payment will be the actual linear footage pipe bursted, measured along the centerline of the pipe.

- (a) **Basis of Payment.** Price per linear foot shall include all labor, materials, equipment, tools and incidentals for pipe bursting. The price per linear foot of pipe bursting shall include preconstruction video-taping, pre- and post-seismic inspections, confined space entry and equipment, flow control, clearing and grubbing, debris collection and disposal, dewatering, equipment, erosion and sediment control, excavation pits, fittings, ingress and egress procedures, labor, materials, permits, pipeline cleaning, pre- and post-television inspection, re-establishing lateral service connections, removal and replacement of manhole frames and covers as necessary, removal of protruding service connections, sealing at the manholes and

service connections, replacement of pavement and restoration of areas damaged by pipe bursting activities, such as heaves, sags, etc., resident notification, root removal, testing, traffic control, required compliance tests, site cleanup, and site restoration. Materials shall include all other work, not included under other items, necessary to complete the work as specified.

END OF SECTION

## SECTION 2737

### MANHOLE REHABILITATION

- 2737.01 DESCRIPTION**
- 2737.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.
- 2737.01.02 Description of Work.** These specifications include requirements to provide a system for manhole rehabilitation that includes lining the manhole interiors, internal sealing of the frame-chimney joint area, reconstructing manhole benches and channels, manhole adjustment and exterior protection and refinishing. It is the Contractor's responsibility to stop all active leaks in association with the lining of the manhole interiors.
- 2737.01.03** This work shall include the furnishing of all materials, equipment, tools, and labor as required for the (interior and exterior) rehabilitation of the manholes.
- 2737.01.04** Rehabilitation products shall be applied to the manhole from the cover seat to and including the benches, and channel. Each system must provide a non-prorated warranty as herein described in manholes to stop infiltration, prohibit root intrusion, protect the existing structure from further deterioration, and provide a surface liner resistant to collection system gases and chemicals.
- 2737.01.05** Prior to the work, all rehabilitation products shall be kept dry, protected from weather, and stored under cover. The materials shall be stored in acceptable temperatures according to the manufacturer's recommendations. All products shall be handled according to their Material Safety Data Sheets.
- 2737.01.06** For any ASTM standard referenced, the Contractor shall use the most current active version.
- 2737.01.07 Safety.** The Contractor shall follow the safety guidelines as described in Section 2731, Pipe Rehabilitation – General Requirements.
- 2737.01.08 Contractor Experience.**
- (a) The Contractor for the rehabilitation of the manhole structures must have a minimum of two years experience using the liner product proposed and have installed at least 1,000 vertical linear feet of the proposed product for collection system manholes.
  - (b) The Contractor shall be licensed by the liner process manufacturer.
- 2737.01.09 Product Experience.** The product proposed for the rehabilitation of the manholes must have been in use for at least three years and a minimum of 1,500 vertical linear feet of the product must have been installed in collection system manholes.

**2737.01.10 Submittals - After Notice of Award.** After the Notice of Award, the Contractor shall submit the information listed below for review and approval. The notice to proceed will not be issued until all of the listed information has been reviewed and approved by the County and/or the Engineer.

- (a) Shop drawings and product data for the manhole rehabilitation method including a report outlining the process to be used in the rehabilitation of the manholes. The report shall also include information specific to the job, such as schedule, coordination issues, access, timing, manufacturer's installation instructions, curing operations and procedures, traffic control, and flow control.
- (b) Samples of all materials proposed shall be provided for approval from the County prior to initiation of the Work. The samples shall be accompanied by the manufacturer's sworn certification that components and products will be manufactured in accordance with specified reference standards for components and products.
- (c) All measurements made by the Contractor to verify manhole depths, elevations and diameters, prior to ordering of material.
- (d) Manufacturer's published literature and published data for the proposed manhole rehabilitation system, including all Material Safety Data Sheets.
- (e) The manhole rehabilitation system supplier's letter of certification for the workers who will perform rehabilitation work. If, during the installation process, any of the crew members performing the installation are not identified on this letter, then a new certification letter listing the crew member(s) must be received from the rehabilitation system supplier prior to initiation of the specific project.
- (f) Independent test report showing that the physical properties of the proposed system meet the requirements of these specifications and the requirements published in the manufacturer's literature.
- (g) The manufacturer's certification that the proposed system for the project meets the requirements of these specifications and will meet or exceed the physical properties given in the manufacturer's published literature submitted as required by Part (i) of this subsection.
- (h) Documentation of Contractor's experience. This shall include references for all jobs within the last two years that were either completed or under construction using the proposed rehabilitation method, and shall show that at least 1,000 vertical linear feet of this proposed product has been installed by this Contractor. References for a minimum of 5 jobs shall be provided. Information provided shall include a description of the job (including the liner method used and vertical feet of liner installed), the location of the job, the value of the job, the Owner, and the contact for the job including name, title, address, and phone number.

- (i) Documentation of Product experience. This shall include references for jobs completed with the proposed rehabilitation method. The jobs submitted shall show that at least 1,500 vertical linear feet of the product has been installed by the Contractor or other Contractors. The documentation shall include at least ten jobs, which have been completed, within the last three years. Information provided for each job shall include a description of the job (including the liner method used and vertical feet of liner installed), the location of the job, the value of the job, the Owner, and the contact for the job including name, title, address, and phone number.
- (j) If requested, proof of any federal, state, or local permits or licenses necessary for the project.
- (k) Calculations (or letter from the manufacturer) supporting recommended liner thicknesses or wall coverage thicknesses.
- (l) Manhole Patching Mix
- (m) Manhole Infiltration Control Mix
- (n) Manhole Sealer
- (o) Manhole Cementitious or Epoxy Liner
- (p) Internal and External Manhole Frame Seals and proof of contractor's experience using type of seals proposed.
- (q) Manhole Frame and Cover from County's approved supplier list
- (r) Manhole Inserts
- (s) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the rehabilitative product manufacturer(s), manufacturer's representative or vendor as well as the manhole liner installer certifying that the product(s) they are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.

**PRODUCT WARRANTY AND CERTIFICATION FORM**

REFERENCE: (PROJECT NAME AND CONTRACT NUMBER): \_\_\_\_\_

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE REHABILITATION PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

## 2737.02 MATERIALS

**2737.02.01 Patching and Infiltration Control Materials.** The Contractor may use the following products in conjunction with the liner material to facilitate manhole rehabilitation. Material compatibility of the products must be confirmed prior to commencement of work. If alternate patching and/or infiltration control mixes need to be used in order to be compatible with the lining material, the product specifications shall be reviewed and approved by the County before the product is ordered.

- (a) **Patching Mix:** A quick-setting cementitious material shall be used as a patching mix and is to be mixed and applied according to manufacturer's recommendations and shall have the following minimum requirements:

Compressive Strength	ASTM C109	6 hr 1,400 psi
Shrinkage	ASTM C596	0% at 90% relative humidity
Bond	ASTM C321	28 day 150 psi
Cement		Sulfate resistant
Density, when applied		105 ±5 pcf

- (b) **Infiltration Control Mix:** A rapid-setting cementitious product specifically formulated for leak control shall be used to stop minor water infiltration and shall be mixed and applied according to manufacturer's recommendations and shall have the following minimum requirements:

Compressive Strength	ASTM C109	1 hr	600 psi
Compressive Strength	ASTM C579 Method B	24 hr	1,000 psi
Bond	ASTM C321	1 hr	30 psi
Bond	ASTM C321	24 hr	80 psi

- (c) **Grouting Mix.** A cementitious grout shall be used for stopping very active infiltration and filling voids and shall be mixed and applied according to the manufacturer's recommendations. The cementitious grout shall be volume stable and have a minimum 28 day compressive strength of 250 psi and 1 day strength of 50 psi. Chemical grouts may be used for stopping very active infiltration and shall be mixed and applied per the manufacturer's recommendations.

- (d) **Manhole Sealer.** The manhole sealer material shall be an Acrylamide or Urethane Base Gel as specified in Specification Section 2738, Sanitary Sewer Pipe Joint and Service Connection Testing and Grouting.

- (e) **Other Materials:** No other material shall be used with the above mixes without prior approval or recommendation from the manufacturer and the County.

- (f) **Water:** Water shall be clean and potable.

**2737.02.02 Cementitious Liner Mix.**

- (a) The cementitious liner mix shall be a cement-based, fiber-reinforced calcium aluminate mortar specifically designed to prevent infiltration and restore structural integrity, and to be spray applied to form the structural/structurally enhanced monolithic cementitious liner covering all interior manhole surfaces. The material shall be applied at a minimum ½ inch thickness; but application must be at a thickness to ensure a structurally stable manhole, while forming an infiltration barrier to water and gases.
- (b) The material shall be premixed and specially formulated to withstand hydrogen sulfide bacterial corrosion and abrasion in municipal sanitary sewer systems.
- (c) The standard material shall have the following minimum requirements at 28 days.

Compressive Strength	ASTM C109	8,000 psi
Flexural Strength	ASTM C293	700 psi
Shrinkage @ 90% Humidity	ASTM C596	0%
Tensile Strength	ASTM C496	> 600 psi
Sulfide Resistance	ASTM C267	No visible attack @ pH 2 or greater.

- (d) The high performance material shall have the following minimum requirements at 28 days.

Compressive Strength	ASTM C109	9,000 psi
Flexural Strength	ASTM C293	1,200 psi
Shrinkage @ 90% Humidity	ASTM C596	0%
Tensile Strength	ASTM C496	> 800 psi
Sulfide Resistance	ASTM C267	No visible attack @ pH 2 or less

- (e) Provide Strong-Seal System, Permacast Process, or approved equal.
- (f) The liner mix shall have a five-year labor and materials, non-prorated warranty to stop infiltration and further deterioration of the structure.
- (g) The manufacturer shall warrant that the products are produced in conformity with its standard specifications or formulations within recognized tolerances, free of adulteration or contamination, and that the product will perform in accordance with representations in the manufacturer's literature and technical data sheets when properly applied in strict conformance with the printed instructions on the container and prescribed in technical data instructions and when applied to a properly prepared surface.
- (h) Use additives to increase corrosion resistance or bond strength at manufacturer's direction, with the County's approval.



**2737.02.03 Epoxy Liner.**

- (a) The monolithic high-build epoxy liner shall consist of a 100% solids epoxy formulated with exceptionally high physical strengths and broad range chemical resistance. The liner system coverage shall be a minimum of 100 mils and shall be determined by the manufacturer. The manufacturer shall provide documentation for the recommended thickness.
- (b) The epoxy liner shall have the following minimum requirements:

Test	Property	Results
ASTM D790	Flexural Strength	12,443 psi
ASTM D695	Compressive Strength, Yield	12,870 psi
ASTM D638	Tensile Strength	6,640 psi
ASTM D638	% Elongation @ Max Load	1.53%
ASTM D2240	Hardness, Shore D	80
ASTM D256	Impact, IZOD	0.345 ft. lb/in of notch

- (c) The epoxy liner shall have the following minimum requirements after seven day curing:

Test	Property	Results
ASTM D2240-75	Hardness	82 Shore D
ASTM D638	Ultimate Elongation	6%

- (d) Chemical Resistance: The corrosion resistance of the epoxy lining shall be tested by the lining manufacturer in accordance with ASTM D543. For the chemical resistance requirements, refer to Table 2732-4 in Section 2732, Pipe Rehabilitation by Cured-in-Place Method (CIPP) (Per ASTM F1216).
- (e) The epoxy liner shall have a five-year labor and materials, non-prorated warranty to stop infiltration and further deterioration of the structure.
- (f) The manufacturer shall warrant that the products are produced in conformity with its standard specifications or formulations within recognized tolerances, free of adulteration or contamination, and that the product will perform in accordance with representations in the manufacturer's literature and technical data sheets when properly applied in strict conformance with the printed instructions on the container and prescribed in technical data instructions and when applied to a properly prepared surface.

**2737.02.04 Internal and External Manhole Frame Seals.**

- (a) An internal or external frame seal may be required to be installed where indicated on the drawings. The internal frame seal shall either be an internal cured-in-place (CIP) frame seal or a fiberglass and epoxy hand

applied frame seal as specified in these Contract Specification or a combination of the two.

- (b) The internal frame seal shall either be an internal cured-in-place (CIP) frame seal or a fiberglass and epoxy hand applied frame seal as specified in these Contract Specifications or a combination of the two. Both of these methods are considered CIP methods, but will be referred to separately within these specifications. Internal manhole frame seals shall be installed at the locations indicated on the Contract Drawings or as directed by the Engineer. The internal frame seal shall be installed after all other repairs and/or rehabilitation have been completed on the manhole structure. Site conditions may preclude the Contractor from mobilizing the installation equipment near the manhole. Remote installations may be required.
- (c) Internal Manhole Cured-in-Place Frame Seals: Internal cured-in-place (CIP) manhole frame seals consist of a one-piece resin impregnated liner that is cured in place under pressure. The liner is pressed tightly against the existing manhole by a pressurized bladder until the thermo-set resins have cured in ambient conditions. The liner shall start at the manhole cover seat and overlap onto the existing cone/corbel section of the manhole a minimum of 2-feet or longer as needed to allow for a tight and watertight seal. The cured-in-place manhole chimney liner shall be tightly fitted to the contours of the existing structure, significantly increase structural integrity, eliminate inflow and infiltration, eliminate exfiltration, have a 50-year life span, stop corrosion, and provide a surface resistant to sewer gases.
  - (1) General: The rehabilitation is accomplished using a stretchable coated non-woven textile tube of particular length and a silicate based thermo-set resin with physical and chemical properties appropriate for the application. The liner is impregnated (saturated) on-site with the silicate based thermo-set resin. The saturated liner is then lowered into the manhole and is temporarily held in position. The installation device is then lowered and properly positioned inside the liner. The bladder on the installation device is then pressurized so that the liner is pressed tightly against the configuration of the existing structure. Once the resin-saturated liner is cured, the installation device is removed. The liner shall be able to cure in wet or dry conditions. The liner is then trimmed flush with the manhole cover seat. The liner shall be beveled or recessed to prevent delamination when the cover is removed and/or replaced.
  - (2) Material: The liner shall be continuous in length and consist of one or more layers of a stretchable absorbent textile material. The liner is designed to prevent leakage associated with inflow and infiltration, withstand hydrostatic pressures, bridge missing mortar or brick segments, accommodate variations in manhole configuration, withstand freeze/thaw cycles, and conform to the contours of the existing structure. The saturated liner shall have uniform thickness and have excess resin distribution that when

compressed at installation pressures will meet or exceed the design thickness after cure and provide a watertight seal.

- (i) The exposed layer of the stretchable liner shall be coated with an impermeable, translucent, flexible membrane. The liner shall be marked correlating to the address or manhole identification number, and date of installation.
  - (ii) The liner shall be a one-piece assembly sewn in the shape of a tube or other configuration at a predetermined length to seal the casting and to overlap onto the cone/corbel. The sewn seams shall be sealed using a tape compatible with the liner. The liner wall thickness shall be uniform throughout. The liner will be capable of conforming to offset bricks and grade rings, missing mortar gaps, disfigured and deteriorated chimneys, offset frames or other segments of the manhole and provide a tight-fitting, watertight installation.
- (3) All active leaks must be stopped prior to installation of the CIP frame seal.
  - (4) Minor rebuilding of the manholes transition, adjustment or cone section may be required to provide a smooth and uniform surface needed to accommodate the installation of the CIP frame seal to create a tight-fitting watertight connection.
  - (5) Resin System: The resin system shall be corrosion resistant silicate resin and catalyst system that when properly cured within the stretchable liner, forms a tenacious bond with well prepared surfaces, withstands freeze/thaw cycles without cracking, and meets the physical properties stated herein.

Table 2737-1 Cured-In-Place Manhole Structural Properties

PROPERTY	TEST	MINIMUM VALUE
Compressive	ASTM D 695	1500 psi
Bond	Peel Test	Concrete Failure
Hardness	ASTM D 2240	74
Freeze/Thaw Resistance	Simulated Freeze/ Thaw	No Cracking or Bond Failure

Design Considerations:

1. The existing structure is carrying the soil and live loads.
2. The liner will only be subjected to hydrostatic pressure, therefore the pressure exerted on the liner will be uniform around the structure, placing the liner in compression. Therefore, the minimum liner thickness ( $T_{min}$ ) shall be based on the following formula:

$$T_{min} = \frac{(0.036 \text{ lbs/in}^3 * H * D * FS)}{2(C)}$$

H= Height of liner in inches

D = Diameter of liner in inches

FS = Factor of safety (2 is suggested)

C = Compressive strength of liner in psi

0.036 lbs/in<sup>3</sup> unit weight of water

**(d) Internal Fiberglass and Epoxy Hand Applied Frame Seal.**

- (1)** This seal is a fiberglass and epoxy hand applied chimney/frame seal that when properly installed forms a monolithic seal that is completely bonded to the host structure. The frame seal shall conform to the structure regardless of the shape or size. The liner shall start at the manhole/structure cover seat and overlap onto the existing cone/corbel section of the manhole/structure a minimum of two (2) feet or longer as needed to allow for a tight and watertight seal. The chimney liner shall be bonded to the contours of the existing structure, significantly increase structural integrity, eliminate inflow and infiltration, and provide a surface resistant to sewer gases.
- (2)** Material. The chemical-resistant fiberglass and epoxy composite liner shall be composed of fiberglass fabric that is encapsulated by a modified epoxy resin system. The fiberglass reinforces the epoxy and insures a minimum finished liner thickness of 125 mils (1/8"). When cured, a rigid barrier is formed that bridges any potential weak point of adhesion.
- (3)** The reinforcing fabric shall be an 11 oz. fiberglass bonded fabric of Type E glass having a tensile strength of 500,000 PSI, a modulus of elasticity of 10.5 million PSI, and a maximum elongation of 4.8%. The fabric shall be stitch bonded construction with a chemical binder to enhance wet out, handling and adhesion.
- (4)** The modified epoxy resin system shall be a bisphenol A epoxy resin cross linked with a modified polyamide curing agent. This resin systems shall be 100% solids, emitting no toxic odors. The resins shall exhibit high tensile and flexural strengths (see below for properties of the fiberglass/epoxy composite system). They shall adhere to moist surfaces and cure even when submerged in water. Adhesion shall exceed the tensile strength of the concrete substrate. The epoxy mastic shall be capable of bonding to multiple surfaces including concrete, brick, carbon steel, galvanized steel, aluminum, wood, and some plastics.

PROPERTY	TEST	MINIMUM VALUE
Hardness	ASTM D-2240	72 Shore D
Tensile Strength	ASTM D-638	29,200 PSI
Compressive Strength	ASTM D-695	16,800 PSI
Flexural Strength	ASTM D-790	34,300 PSI
Ultimate Elongation	ASTM D-638	4.50%
Bond	ASTM D-4541 (Concrete)	Substrate Failure
Flexural Modulus	ASTM D-790	1,590,000 PSI
Shear Strength	ASTM D-2344	4,060 PSI

- (5) The fiberglass and epoxy hand applied internal frame seal shall be the PerpetuWalls™ as manufactured by Protective Lining Systems or approved equal.
- (e) External Manhole Frame Seal: External frame seals shall be used when specified in the Contract Drawings, which generally is when excavation of the manhole is completed that would allow the installation of the external seal per the requirements of this Section. External seals shall be Wrapidseal™ or approved equal. The external seals shall be a heat shrinkable seal specifically designed to eliminate inflow and/or infiltration from exposed or buried sections of the manhole. The seal shall be UV resistant for external installations. The seal when applied to the structure shall provide a tight-fitting completely watertight seal between the manhole structure and the frame and cover allowing for movement and any expansion and contraction of the connection.

#### 2737.02.05 Manhole Inserts.

- (a) Manhole inserts shall be manufactured from corrosion-proof material suitable for atmospheres containing hydrogen sulfide and diluted sulfuric acid and other gases associated with waste water collection systems.
- (b) The insert shall be manufactured to fit the manhole frame rim upon which it rests.
- (c) Ventilation shall be provided by a vent hole and/or a valve. The hole or valve shall allow a maximum release of 0.5 to 1.5 psi and 5 gallons of water per 24 hours and is not affected by debris that may collect in the bottom of the dish.
- (d) The manhole inserts shall be stainless steel inserts.
- (1) The insert body shall be manufactured of 304 stainless steel with a thickness of not less than 18 gage.
  - (2) The dish shall have a handle of 3/16" plastic coated stainless steel cable installed on the body of the dish. The handle shall be attached with a #6 high grade stainless steel rivet.
  - (3) The stainless steel inserts shall be "Rainstopper" or equal.

**2737.03 CONSTRUCTION REQUIREMENTS**

- 2737.03.01 Cleaning.** Cleaning of the manhole structures shall be performed as specified in Section 2741 – Sewer Line, Lateral, and Manhole Cleaning, and per recommendations of manufacturer of product to be installed.
- 2737.03.02 TV Inspection.** Inspection of the sewer system shall be performed as specified in Section 2742 - Television Inspection.
- 2737.03.03 Flow Control.** When required for acceptable completion of manhole rehabilitation, the Contractor shall provide for adequate Flow Control including but not limited to required pumping and bypassing as stipulated in Section 2740 - Flow Control, of the contract documents.
- 2737.03.04** Prior to performance of the actual work, the Contractor shall carefully inspect the entire site and locate the manholes designated to be rehabilitated. If a flow meter is encountered in any manhole, the contractor shall notify the County inspector 48 hours prior to needed removal of meter. The Contractor shall not remove the flow meter themselves. The cost for any flow meters damaged by the contractor or his subcontractors is the contractor's responsibility.
- 2737.03.05** Site conditions may preclude the Contractor from mobilizing the sealing and lining equipment near the manhole. If the manhole is inaccessible, as determined by the Contractor and the County, the Contractor shall hand apply the sealers and liners per the manufacturer's instructions and recommendations. Hand application shall be completed at no additional cost to the County.
- 2737.03.06** All materials shall be delivered to the job site in the manufacturer's original sealed containers that bear identifying labels. All materials shall be used in strict accordance with the sealers and liners equipment manufacturer's printed directions.
- 2737.03.07** The Contractor shall be licensed by the sealer and liner process manufacturer.
- 2737.03.08** The Contractor shall conduct operations in accordance with applicable OSHA standards, including those safety requirements involving entry into a confined space. Make suitable precautions to eliminate hazards to personnel near construction activities when pressurized air is being used.
- 2737.03.09 Manhole Step Removal:** The Contractor shall remove steps prior to manhole lining, unless otherwise specified by the County. Step removal shall consist of neatly cutting the steps flush with the wall prior to any lining installation. The Contractor shall be responsible for proper disposal of the steps.
- 2737.03.10 Preparation of Surfaces to Receive Sealing and Lining.**
- (a) Throughout the entire surface preparation process, any nearby installations, equipment vehicles, structures, etc. shall be protected from blasting grit and dust.

- (b) Place covers over bench to prevent extraneous material from entering the sewer lines during cleaning and rehabilitation work.
- (c) Filter solids-laden water through an approved de-silting device. No material shall be allowed to travel downstream.
- (d) Sludge or other surface impurities (including, but not limited to, oils, grease, incompatible existing coatings, waxes, form release, curing compounds, efflorescence, sealers, salts, or other contaminants) shall be removed by fresh water blasting (3,000 psi minimum). Should this operation be insufficient to remove surface impurities, abrasive blasting shall be performed. An environmentally acceptable detergent may be used in conjunction with the water blast as long as it is thoroughly rinsed out with fresh water after application.
- (e) Loose and protruding brick, mortar, and concrete shall be removed using a mason's hammer and chisel and/or scraper.
- (f) Concrete or brick to be coated shall be prepared by fresh water or abrasive blasting using properly graded, clean, sharp angular abrasive blast media to produce a sound surface, with no evidence of laitance, loose concrete contaminants or debris, and shall display a surface profile suitable for lining. Minor rebuilding of the manhole may be required to provide a smooth surface; this may include patching, reshaping, and/or replacement of missing bricks with new bricks or a solid layer of concrete mortar. Previously applied coatings, if any, shall be completely removed during abrasive blasting operations.
- (g) Prior to application of the liner, all apparent leaks in structural section joints around pipe penetrations, minor cracks or leaks in other areas of the structure, shall be plugged or repaired with an approved patching mix, or infiltration control mix in accordance with this Specification. Major cracks or leaks shall be plugged or repaired with an approved chemical grout in accordance with this Specification and Section 2738 - Sanitary Sewer Pipe Joint and Service Connection Testing and Grouting. The patching mix, infiltration control mix, and chemical grout shall be mixed and applied per the manufacturer's recommendations. Any excessive cavities in wall area and around pipe penetrations shall be filled with an approved patching mix or chemical grout. Remove all protruding pipe ends no longer in use after approval is obtained from County. Remove all excess expansion joint material prior to application of the liner system.
- (h) Some leaks may require weep holes to localize the infiltration during the application, after which the weep holes shall be plugged with the quick-setting infiltration control mix prior to the final liner application. When severe infiltration is present, drilling may be required in order to pressure grout using a cementitious or chemical grout. The manufacturer's recommendations shall be followed when pressure grouting is required.
- (i) All masonry surfaces shall be washed to clean blast dust out of the pores of the brick or cement substrate.

- (j) Structure walls shall be sprayed with a chlorine solution to kill any bacteria growth in the substrate and rinsed just prior to the application of the liner.
- (k) The walls shall be tested for pH and brought to a neutral state prior to application of the liner.
- (l) Areas of manholes that are found to be structurally damaged and in need of repair beyond the scope of this specification shall be brought to the attention of the County. A suitable repair method shall be developed for each area and submitted to the County for review prior to commencing the repair.
- (m) Any bench, invert, channel, or service line repairs shall be made at this time using the quick-setting patching mix, and shall be used per the manufacturer's recommendations.
- (n) Manhole benches and inverts shall be prepared and cleaned in the same manner as prescribed above.
- (o) Invert Repair: Invert repair shall be performed on all inverts with visible damage or infiltration. After blocking flow through the manhole and thoroughly cleaning invert, the quick-setting patch mix shall be applied to the invert in an expeditious manner. The mix shall be troweled uniformly onto the damaged invert extending out onto the base of the manhole sufficiently to tie into the structural/structurally enhanced monolithic liner to be applied. The finished invert surfaces shall be smooth and free of ridges. The flow may be re-established in the manhole after the mix has properly cured. Upon completion of the invert repair and manhole lining, there shall be a smooth transition from the invert to all of the lined and unlined incoming and outgoing connections.
- (p) All surfaces shall be inspected during and after cleaning and before the manhole is lined.

**2737.03.11 Manhole Sealer.**

- (a) Sealing cracks shall mean that the entire wall and bench surface is sealed by permeation grouting the soil surrounding the manhole. Grout shall extend from manhole base to top of cone section and will include the cone-to-frame joint, bench, and where pipes enter and exit the manholes.
- (b) Chemical grout material shall conform to the requirements specified in Specification Section 2738 - Sanitary Sewer Pipe Joint and Service Connection Testing and Grouting.
- (c) Chemical grout shall be applied to exterior manhole surfaces through application holes drilled in manhole walls, which are to be located in a staggered configuration to assure adequate distribution of grout into the soil. Location of holes shall typically be at 2 feet vertical intervals, with four holes per level. Locations will depend on actual field conditions.



Chemical grout shall be applied through threaded connections into lower holes until grout is freely flowing from the next highest set of holes and a thorough grout zone is established as determined by the County. The Contractor shall be fully responsible for damage caused to the existing manhole due to his or his subcontractors' operations. Chemical grout injection pressures shall not exceed 25 psi at the inlet. Holes shall be filled with a quick setting infiltration control mix once chemical application is completed and prior to the liner application.

- (d) **Sealing of precast concrete manhole joints shall conform to the requirements of ASTM F2414 (Standard Practice for Sealing Sewer Manholes Using Chemical Grouting) and shall consist of injecting grout through holes drilled at leaking joints. Once 10 gallons of grout has been injected at a leaking joint, the County will need to approve any additional grouting at this location.**

#### **2737.03.12 Manhole Lining.**

- (a) Application of Cementitious or Epoxy Liner
  - (1) The Contractor shall take precautions to keep overspray or excess material from entering the newly installed liner pipe and any other pipes in the manhole. Any overspray or excess material shall be removed by the contractor.
  - (2) Prior to liner application onto walls, manhole bench area shall be covered with plywood sections, which conform to the internal dimensions of the manhole, to prevent accumulation of liner material on bench. No application shall be made to frozen surfaces or if freezing is expected to occur inside the manhole within 24 hours after application.
    - (i) Cementitious Liners: If ambient temperatures are in excess of 95 °F, precautions shall be taken to keep the mix temperature at the time of application below 90 °F. The mix water temperature shall not exceed 85 °F. Chill with ice if necessary.
  - (3) Mixing: For each bag of product, use the amount of materials specified by the manufacturer and mix per the manufacturer's instructions and recommendations.
    - (i) The Contractor shall empty the mixed material into the holding hopper and prepare another batch with timing such that the nozzleman can spray in a continuous manner without interruption until each application is complete.
  - (4) Spraying

- (i) Low pressure spray liner shall be applied to the manhole wall and bench surfaces and allow liner to cure in accordance with the product manufacturer's instructions and recommendations. The spray equipment shall be specifically designed to accurately apply the specified liner materials and shall be regularly maintained and in proper working order.
  - (ii) Liner application shall be completed with a minimum of two coats or as per the manufacturer's recommendations, to achieve no less than the minimum liner thickness as discussed in 2737.02. The first coat shall be applied to a surface that meets the manufacturer's requirements for a successful bond between the liner and the existing manhole. Materials shall be spray applied from the bottom of the wall to the top, to a minimum uniform thickness to ensure that all cracks, crevices, and voids are filled and a relatively smooth surface remains after light troweling, if required. The light troweling is performed to compact the material into voids and to set the bond. The second application, as necessary per the manufacturer's recommendations, shall be applied based on the manufacturer's recommendations for the time elapsed since the first application and the required consistency of the first coat for a proper bond between the applications. If the window of time is exceeded, additional procedures may be required by the manufacturer's instructions before the second coat can be applied. The second application shall be applied from the bottom up and shall be a finished smooth surface.
  - (iii) Bench Application: The plywood covers shall be removed and the bench sprayed such that a gradual slope is produced from the walls to the channel with the thickness at the edge of the channel being no less than the minimum liner thickness as discussed in 2737.02. The wall bench intersection shall be rounded to a uniform radius equal to the full circumference of the intersection. If using an epoxy lining, the sloped surfaces shall be given a non-slip finish by broadcasting aluminum oxide or silica sand into the surface prior to gelation.
- (5) Watertight Seal Between Pipe Liner and Manhole Liner: Where a manhole has been lined through with a pipeline liner, the Contractor shall prepare a watertight seal and smooth transition between the pipe liner and manhole liner system. Also refer to Specification Section 2731, Pipe Rehabilitation – General Requirements, Paragraph 2731.03. No leakage or gaps will be allowed. The method of sealing and preparing a smooth transition shall be approved by the County.

- (6) The installation of the approved liner system shall be in strict accordance with the manufacturer's written instruction. This shall include re-grouting all inlet and outlet lines and benches as needed, plus the preparation, installation, curing, and finish operation, for the completion of the rehabilitation process. Sagging of the material is not permitted.
- (7) Curing
  - (i) Caution should be taken to minimize exposure of applied product to sunlight and air movement. If application of second coat is to be longer than 15 minutes after completion of application of first coat, the manhole cover shall be set back in place. At no time should the finished product be exposed to sunlight or air movement for longer than 15 minutes before replacing the manhole cover.
  - (ii) The final application shall have a minimum of 4 hours cure time before being subjected to active flow. Total cure times shall be determined by the manufacturer.
  - (iii) Traffic shall not be allowed over manholes during or immediately after the rehabilitation. Traffic shall be allowed over the manholes after a period of time as determined by the manufacturer.

### **2737.03.13 Manhole Frame Seals.**

- (a) The manhole frame and the chimney above the cone shall be sealed and shaped in accordance with the manufacturer's installation recommendations and as specified in section 2737.02.04.
- (b) The Contractor shall be trained in the installation of the manufacturer's product and certified by the seal manufacturer.
- (c) Internal CIP Application:
  - (1) Preparation: All surfaces in contact with the internal CIP frame seal must be stringently pressure washed with a minimum of 3,000 psi @ 5 gal/min pressure washer. Other alternatives to clean the structure may be used along with pressure washing such as abrasive blasting. The existing casting shall be cleaned using a grinder, wire wheel or by sand blasting. Large voids, offsets and areas with missing or mis-aligned bricks or adjustment materials shall be filled with hydraulic cement to provide an area that liner can effectively press up against. Smaller voids and missing mortar may go un-patched, since these areas will be filled with excess resin. Steps that are located in the area to be lined shall be removed. Any voids that will be produced due to frame offsets shall have mastic used to create a smooth transition from the adjustment to the frame and accommodate the installation of the

liner. The frame seal liner shall accommodate moderate frame offsets or other irregularly shaped structures.

- (2) **Frame Seal Impregnation:** The CIP frame seal shall be impregnated (saturated) on-site under controlled conditions. The resin volume shall be measured to accommodate each specific seal. The volume of resin used shall be sufficient to fill all voids in the liner material at nominal thickness and diameter and any voids that exist in the installation manhole. No dry or unsaturated areas in the liner shall be acceptable upon visual inspection.
- (3) **Installation Device:** Once the CIP frame seal is placed in the manhole the installation device is inserted inside the liner. Spacing rings on top of the manhole allow the installation device to rest at the correct depth to accommodate the installation requirements. Once inserted, the installation device bladder is pressurized. The installation device stays in place and pressurized until the liner is fully cured. The installation device and bladder must conform to the shape of the manhole and fully expand the liner so it is pressed tightly against the shape of the existing manhole accommodating offsets or other surface irregularities. Several bladder sizes may be required to accommodate the installation requirements of this project.
- (4) **Curing:** The CIP frame seal is cured at ambient temperature as it is pressed firmly against the existing structure. The curing time must take into consideration the resin system, ground conditions (temperature and moisture level), and weather conditions. Typically, one (1) hour (minimum) is needed to cure the liner. A curing log shall document the cure time, pressure, resin usage, and other pertinent information. This shall be provided to the Engineer upon request.
- (5) **Trimming:** Once cured, the installation device shall be removed and the CIP frame seal trimmed at the manhole cover seat. The liner shall be beveled at the seat or slightly recessed to prevent debonding when the manhole cover is opened and closed.
- (6) **Completed CIP Frame Seal:** The finished CIP frame seal shall be continuous from the manhole cover seat to the overlap onto the cone/corbel/manhole wall section. The seal shall provide a smooth surface that conforms to the configuration of the existing structure. The seal shall be free of dry spots, voids, air gaps and delamination. The finished product must provide an air and watertight structural and corrosion resistant seal protecting the entire chimney section of the manhole.
- (7) **Recommended Inspection and Testing Practices:** The frame seal shall be visually inspected to insure adequate bonding, watertightness, resin saturation, complete cure, and a smooth surface free from gaps, cracks or significant hollow spots.

- (d) Internal Fiberglass and Epoxy Hand Applied Frame Seal Application.
- (1) Hand applied internal fiberglass and epoxy frame seals should be used to accommodate frame/adjustment section off-sets that cannot be accommodated with resin impregnated fixed diameter CIP frame seals.
  - (2) Area Preparation. The Contractor shall install and store the product in temperatures as recommended by the manufacturer. The Contractor shall avoid installing the epoxy products in direct sunlight and/or with rising surface temperatures as this may result in blistering of the materials due to expansion of the entrapped air or moisture in the concrete. Concrete surfaces that have been in direct sunlight must be shaded for 24 hours prior to application and remain shaded until the initial set has taken place.
  - (3) Surface Preparation. All structures to receive specified products must be properly designed and capable of withstanding imposed loads. All surfaces shall be pressure washed with a minimum of 4,000 PSI utilizing a zero degree rotating tip. Steel surfaces must be power tool cleaned in accordance with SSPC-SP3 Power Tool Cleaning. New concrete surfaces must be abrasive blasted in accordance with SSPC-SP13 Surface Preparation of Concrete to remove all laitance, loose or damaged concrete, oils, greases, and chemical contaminants. Concrete surfaces that have had coatings or sealers applied must also be abrasive blasted in accordance with SSPC-SP13. Suitably prepared concrete should have a uniform surface texture resembling coarse sand paper. Any exposed rebar must receive an approved epoxy mastic primer prior to application of the concrete re-surfacer. The blasting abrasive shall allow free silica product such as Dupont Starblast.
    - (i) All structures with surface deterioration (pitted precast concrete, holes, voids, brick with mortar missing, etc.) or as required to accommodate the requirements of the work shall be patched and reshaped. Missing bricks shall be replaced or filled solid with concrete mortar. This shall be in accordance with the Manhole Rehabilitation specification section.
    - (ii) All active leaks must be stopped prior to installation of the frame seal.
    - (iii) The area associated with the frame seals installation shall be addressed as needed to accommodate the installation of the frame seal.
  - (4) Installation. After inspecting all surfaces for suitability, installation of the internal fiberglass and epoxy hand applied frame seal shall begin by applying the epoxy mastic to the interior

walls starting just below the cover seat, at an approximate thickness of 100.00 mils. The applicator determines the workable area to be covered in the first pass. The fiberglass fabric shall be cut into the required dimensions and pressed, using a putty knife, into the mastic to achieve full wetting of the fabric. With subsequent applications of the fabric, the edges shall be overlapped a minimum of 2-inches. Epoxy shall be applied between the overlapped edges to assure a monolithic construction. The fabric shall be top-coated with the epoxy mastic to insure complete saturation and encapsulation of the fabric. The finished internal frame seal lining system shall have a minimum thickness of 125.0 mils.

- (5) Curing. Allow the epoxy to cure as recommended by the manufacturer before returning the structure to service.
- (6) The internal frame seal shall be beveled at the seat or slightly recessed to prevent debonding when the manhole/structure cover is opened and closed.
- (7) Completed internal frame seal. The finished hand applied manhole frame seal shall be continuous from the manhole/structure cover seat to the overlap onto the cone/corbel/wall section as required to make a complete and watertight seal. The seal shall provide a smooth surface that conforms to the configuration of the existing structure. The seal shall be free of dry spots, voids, air gaps and delamination. The finished product must provide an air and watertight structural and corrosion resistant seal protecting the chimney section of the manhole.
- (8) Recommended Inspection and Testing Practices. The internal frame seal shall be visually inspected to insure adequate bonding, watertightness, resin saturation, complete cure, and a smooth surface free from cracks or significant hollow spots.

Note: The internal hand applied frame seal, when indicated on the Contract Documents, shall be installed after all other forms of rehabilitation have been completed to the manhole/structure.

(c) External Application.

- (1) In preparation for the installation of the external frame seal, thoroughly clean and remove any loose or de-bonded construction materials or debris located on the exterior of the exposed manhole/structure and fill any voids with a cementitious material to provide a smooth and suitable substrate for the frame seal to be applied and a watertight seal provided (including any voids around frame gussets). The extent of this repair work shall be to the point where the exposed portion of the manhole/structure meets the ground surface (existing or proposed elevation).

- (2) In addition to these requirements, the product shall be installed per the manufacturer's installation guidelines.
- (3) The external seal shall overlap the frame and extend to cover the entire adjustment rings area to at least 12-inches below the bottom of the adjustment area on to the cone or riser section.
- (4) Seal Overlap. When multiple seals are required to cover the adjustment section. The seals shall overlap the previously installed seal a minimum of 6-inches or per the manufacturer's recommendations to produce a watertight seal. Also there should be a horizontal overlap of at least 6- to 8-inches for each of the seals.
- (5) If the seal is exposed to the environment, it shall be coated per the manufacturer's requirements to prevent ultraviolet (UV) deterioration of the installed seal.

**2737.03.14 Replace or Reset Manhole Frame and Cover.**

- (a) The Contractor shall remove and dispose of or salvage the existing manhole frames and covers as specified. It shall be the responsibility of the Contractor, at no additional cost to the County, to repair any damage to the chimney or corbel caused by the removal of the existing manhole frame.
- (b) External Manhole Frame Seals: Where frames and covers are to be excavated (replaced or reset), the Contractor shall apply an external manhole frame seal in accordance with the manufacturer's recommendations and as specified in section 2737.02.04.
- (c) Technique of Repair.
  - (1) Remove the existing pavement or other surface area adjacent to the manhole. Excavate a maximum 6' x 6' area. Excavate to expose the entire frame and a minimum of 16-inches of the existing manhole wall.
  - (2) Unless otherwise directed, replace the 2 to 3 courses of brick on brick manholes and if the manhole is made of precast concrete, remove the brick grade adjustment to top of cone.
  - (3) Clean all joint surfaces between the frame, adjustments and existing manhole wall to insure a watertight seal.
  - (4) Unless otherwise directed, obtain proper grade by using not less than 4 inches or more than 12 inches of either:
    - (i) Brick and mortar.

- (ii) Solid precast concrete adjustment rings. Rings shall be a minimum of four-inches thick. No more than two rings shall be used to achieve the proper grade. The precast concrete adjustment rings shall be set in full beds of Type M mortar not less than 1/4-inch thick nor more than 1-1/4 inch thick. Frame elevation shall be set at finished grade in traffic areas and as directed by County in other areas. All horizontal, circumferential, and vertical mortar joints inside and outside of the structure shall be pointed for their full width. Depth of pointing shall not exceed 3/8-inch.
- (5) The chimney and corbel shall be repaired or rebuilt with precast concrete grade rings as appropriate to reconstruct the chimney to the height needed for the frame and cover to meet the required grade. The manhole frame shall be sealed using either a manufactured or applied sealing method. Plastic manhole adjusting rings will not be permitted.
- (6) Newly installed grade ring transition section shall be completely coated on the inside and top with a protective liner, overlapping a minimum of 6-inches down on the existing manhole structure. The protective lining shall be in accordance with the liner specified for the precast reinforced concrete manhole sections, as specified in Paragraph 2737.02 of this Specification. Cure entire adjustment ring transition section for a minimum of 24 hours prior to backfilling.
- (7) Excavation and site restoration in paved and unpaved areas shall be in accordance with the County's Standards to a minimum of established preconstruction conditions.
- (8) Furnish and install a new frame and cover, or reuse the existing ones, as specified by the County and in accordance with the County's Standards. Also, furnish and install new frame and cover where manhole replacement is specified and in accordance with the County's Standards.
- (d) Technique of Repair in Paved Areas.
  - (1) Suitable materials (stockpiled) shall be tamped in place to form the subbase for the pavement. If additional material is needed, suitable materials shall be added before the pavement is replaced.
  - (2) The surfacing needed to cover the exposed area (concrete or asphalt) shall conform to the existing pavement. It shall be placed to the same elevation and grade and provide a smooth transition from the existing asphalt onto and over the patch and new frame and cover. All excess material, including pavement, shall be disposed of as required in the Contract Documents.



- (3) Pavement replacement not satisfactorily done by the Contractor shall be reworked at no expense to the County.
  - (4) Backfill shall be replaced and compacted to prevent settlement and to restore the setting to a condition equal to or better than that found. Backfill shall not cover the manhole.
- (e) Technique of Repair in Unpaved Areas:
- (1) Backfill shall be replaced and compacted to prevent settlement and to restore the setting to a condition equal to or better than that found. Backfill shall not cover the manhole.
  - (2) Any private property which is removed for access to the manhole shall be replaced by the Contractor in existing or better condition. If this replacement is not to the satisfaction of the County, it shall be redone at no cost to the property owner or the County.
- (f) The Contractor shall take all necessary precautions to prevent falling debris from damaging the manhole trough and/or entering the sewer. The damaged or deteriorated portions of the existing manhole chimney and corbel shall be removed, repaired or replaced, and disposed of as required in the contract documents, by the Contractor, at no additional expense to the County.

**2737.03.15 Manhole Bench/Channel Reconstruction.**

- (a) Repairs shall be performed on all benches/channels with visible damage or infiltration, and shall be completed in accordance with the County's Standards.
- (b) The Contractor shall construct the manhole channel in accordance with the Baltimore County Department of Public Works Standard Specifications and Details.
- (c) Manhole floors shall be constructed and/or repaired in accordance with the Baltimore County Department of Public Works Standard Specifications and Details.
- (d) Prior to initiating base reconstruction efforts, clean manhole bases with high pressure water blast. Loose materials, including spalled or broken concrete shall be removed and resulting surface made suitable for bonding to new manhole base. Solid debris resulting from the cleaning operations shall be removed from the manhole prior to reconstruction. The Contractor shall remove the existing channel obstructions where directed by the County based on actual field conditions.
- (e) Mortar shall be used to build up deteriorated base and channel to original elevations or to effect a smooth transition between incoming and outgoing

pipes. Bricks may be used to build-up the manhole base if desired and approved by the County.

- (f) After placing the new bench and channel, the Contractor shall apply a surface of quick set mortar to serve as a sacrificial, protective surface for the newly reconstructed manhole base. The protective surface shall be placed once underlying mortar has firmly set, and shall have sufficiently hardened prior to release of back-up sewage into the manhole so as to prevent disruption to the reconstructed base.
- (g) Sewage released into the manhole shall be in a controlled fashion without surcharging or flooding onto the new bench.

**2737.03.16 Manhole Adjustment and Protection.** The manhole shall be adjusted and protected in accordance with the County's standards, including Standard Details G-2, G-3, and G-3A and related Sanitary Sewer Standard Details. Work shall include raising of manhole to road surface or as specified.

**2737.03.17 Exterior Cone Refinishing.** The exterior cone shall be refinished with a mortar finish. The materials and re-finishing shall be in accordance with the County Standards.

**2737.03.18 Manhole Insert Installation.** The manhole insert shall be manufactured, watertight, removable, and of a size suitable for the manhole opening, and shall be installed per the manufacturer's recommendations.

**2737.03.19 Inspection and Quality Control.** The County shall have the right to inspect work at all times. Failure of the County to provide inspection services does not relieve the Contractor of his responsibility to perform the work in accordance with these Specifications.

**2737.03.20 Clean-up and Disposal.** The Contractor shall not allow waste or debris to accumulate. He shall have it removed from the job site at frequent intervals.

**2737.03.21 Defective Work.** Refer to Section 2731, Pipe Rehabilitation – General Requirements.

**2737.03.22 Quality Assurance.** The Contractor shall 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.

- (a) Testing and Inspection. All rehabilitated manholes shall be tested for acceptance for payment of line item. Tests shall be performed no sooner than five (5) days after completion of manhole sealing and lining, unless otherwise approved by the County. At the direction of the County, rehabilitated manholes shall be tested as follows:
  - (1) Visually verify the absence of leaks and that any services are reinstated and unobstructed.

- (2) The Contractor shall conduct one of the following tests:
  - (i) A Negative Air Pressure (Vacuum) Test. The test shall be conducted according to ASTM C1244 and Section 1008.03.09 of the County Standards.
  - (ii) An Exfiltration Test. The test shall be conducted according to ASTM C969.
  - (iii) A Discontinuity (Holiday) Test. The test shall be conducted according to ASTM D5162 (Test Method B unless recommended otherwise by the manufacturer). The contractor shall consult the epoxy lining manufacturer for recommendations regarding test equipment and inspection voltages.
- (3) A final visual inspection shall be made and any deficiencies in the finished lining shall be marked and repaired according to the manufacturer's recommendations.
- (4) Provide test results to county.
- (b) Cementitious and Epoxy Liner. At the direction of the County's representative, the Contractor may be directed to verify the liner thickness at any random point of the new interior surface. Any areas found to be thinner than minimum tolerances shall immediately receive additional material.
- (c) Flow control/bypass systems shall remain in place until after the manhole rehabilitation and/or replacement testing has been successfully completed.

**2737.03.23 Acceptance for Payment.** After the various types of rehabilitation work have been completed, the work shall be visually inspected for compliance and tested for water tightness and uniformity by the Contractor in the presence of the County. If the tests specified herein cannot be conducted on the proposed product and/or rehabilitated manhole, the Contractor shall note that with the manhole rehabilitation product shop drawing submittals and shall provide an alternate test method for review and approval by the County, at no additional expense to the County. If a post-rehabilitation water tightness test is not provided, the Contractor will not receive full compensation for the manhole rehabilitation tasks. The County reserves the right to inspect the rehabilitated manholes during the warranty period. Any leakage or defects in the work found by this inspection or watertightness testing shall be corrected by the Contractor within 30 days from notice, at no additional cost to the County.

#### **2737.04 MEASUREMENT AND PAYMENT**

**2737.04.01 Manhole Rehabilitation.** Shall be measured based upon vertical linear foot of manhole rehabilitated, of each manhole size, measured from the bottom of the frame to the invert of the channel at the center of the manhole.

- (a) **Basis of Payment.** Manhole Rehabilitation shall be paid for at the contract unit price bid per vertical linear foot of manhole rehabilitated, using the rehabilitation technology specified. The unit price includes all labor, surface preparation, materials, equipment, tools, confined space entry and equipment, resident notification and incidentals for cleaning, repairing, patching, sealing and waterproofing of all surfaces including walls, chimney, bench and channel, liner application, preconstruction video, sediment and root removal, debris collection and disposal, traffic control and related permits, flow control, manhole step removal, testing, site restoration, site cleanup, and all other rehabilitation work, not included under other items, necessary to complete the rehabilitation as specified and directed.

**2737.04.02 Rebuild Bench and Channel.** Shall be measured for each bench and channel repaired and approved.

- (a) **Basis of Payment.** Rebuilding the bench and channel shall be paid for at the contract unit price for each bench and channel repaired and approved.

**2737.04.03 Internal Manhole Frame Seal.** Shall be measured for each internal manhole frame seal installed and approved.

- (a) **Basis of Payment.** Internal manhole frame seals shall be paid for at the contract unit price for each internal manhole frame seal installed and includes all labor, materials, equipment, tools and incidentals for preparing the internal frame/cone area, seal installation, testing, traffic control and other incidental work.

**2737.04.04 External Manhole Frame Seal.** Shall be measured for each external manhole frame seal installed and approved.

- (a) **Basis of Payment.** External manhole frame seals shall be paid for at the contract unit price for each external manhole frame seal installed and includes all labor, materials, equipment, tools and incidentals for preparing the external frame/cone area, seal installation, testing, traffic control, site cleanup and other incidental work.

**2737.04.05 Stainless Steel Manhole Insert.** Shall be measured for each insert installed and approved.

- (a) **Basis of Payment.** Stainless steel manhole inserts shall be paid for at the contract unit price for each insert installed and includes all labor, materials, equipment, tools and incidentals for preparing the manhole, testing, traffic control, site cleanup and other incidental work.

**2737.04.06 Exterior Cone Refinishing.** The quantity of cone refinishing will be measured in vertical feet from the ground to the bottom of the cover.

- (a) **Basis of Payment.** Payment for manhole cone refinishing (exterior) is made at the contract unit prices per vertical linear foot for cone refinishing as specified. The price per vertical linear foot shall include all labor,

incidentals, materials, equipment, tools, resident notification, necessary permits, cleaning, required clearing around the manhole, debris collection and disposal, repairing and refinishing the cone, mortar application, site cleanup, and all other work, not included under other items, necessary to complete the refinishing as specified and directed.

**2737.04.07 Manhole Adjustment and Protection.** Measurement for payment will be for the actual number of manholes adjusted, protected and approved.

- (a) **Basis of Payment.** Payment for adjusting and protecting the sanitary sewer manholes is made at the contract unit prices per each manhole adjusted and protected as specified. The price per each shall include all labor, incidentals, materials, equipment, tools, offsite disposal of unsuitable material, paving, site cleanup and all other work, not included under other items, necessary to complete the adjustment and protection as shown, specified and directed.

**2737.04.08 Replace or Reset Manhole Frame and Cover (Including Replacement with a Watertight Frame and Cover).** Measurement for payment will be for the actual number of manhole frames and covers replaced or reset.

- (a) **Basis of Payment.** Payment for replacing or resetting the sanitary sewer manhole frame and cover (standard or watertight) is made at the contract unit price per each manhole frame and cover replaced (standard or watertight) or reset as specified. The price per each shall include all labor, incidentals, materials, equipment, tools, offsite disposal of unsuitable material, traffic control and related permits, paving, site cleanup and all other work, not included under other items, necessary to complete the replacement and resetting as shown, specified and directed. The Contractor shall remove and dispose of the existing manhole frame and cover. It shall be the responsibility of the Contractor, at no additional cost to the County, to dispose of the existing frame and cover and repair any damage to the chimney or corbel caused by the removal of the existing manhole frame.

**2737.04.09 Sealing Precast Concrete Manhole Joints.** Payment for sealing by chemical grout of precast concrete manhole joints will be made by Gallons (GAL), for the actual measured volume of grout injected as shown, specified and directed. The unit price includes all labor, surface preparation, materials, equipment, tools, confined space entry and equipment, resident notification and incidentals for cleaning, sediment and root removal, debris collection and disposal, traffic control and related permits, flow control, site restoration, site cleanup, and all other work, not included under other items, necessary to complete the sealing as specified and directed.

END OF SECTION

## SECTION 2738

### SANITARY SEWER PIPE JOINT AND SERVICE CONNECTION TESTING AND GROUTING

#### 2738.01 DESCRIPTION

**2738.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2738.01.02 Description of Work.** The work covered by this section consists of providing all labor, equipment, material and supplies, and performing all operations required to test and grout sanitary sewer pipe joints and/or sewer service connections, per ASTM F2304 and ASTM F2454. This specification is intended to identify the minimum requirements of the County. Unless otherwise specified, where service connections are to be tested and sealed, testing and sealing shall also include the first joint section along the lateral. The first joint section is defined as the portion of pipe/lateral from the service connection fitting to the (first) upstream lateral joint connection.

**2738.01.03 Submittals – After Notice of Award.** The Contractor shall submit the information listed below for review and approval. The Notice to Proceed will not be issued until all of the listed information has been reviewed and approved by the County.

- (a) Chemical Grouting Materials
- (b) Chemical Root Inhibitor
- (c) The installer must be able to document a minimum of 1,500 joints and/or service connections successfully sealed and tested, of the type to be used on this project, in the U.S. with the past five years.
- (d) The Contractor shall provide a minimum 48-hour advance written notice of proposed testing schedules and testing procedures for review and concurrence by the County.
- (e) Certified statement from the resin or grout injection manufacturer verifying that the Contractor is an approved installer.
- (f) Certificates of training for each crewmember involved in the injection and/or grout process.
- (g) Manufacturer's Safety Data Sheets for the resin and/or grout.
- (h) Material composition, specifications, physical properties and chemical resistance for resin and/or grout. Contractor must submit manufacturer's certification for resin and/or grout demonstrating suitability for penetrating soil/bedding and voids surrounding the lateral connection.

- (i) Manufacturer's recommended procedures for handling, storing, and injecting resin and/or grout.
- (j) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the rehabilitative product manufacturer(s), manufacturer's representative or vendor as well as the grouting installer certifying that the product(s) they are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.

**PRODUCT WARRANTY AND CERTIFICATION FORM****REFERENCE: (PROJECT NAME AND CONTRACT NUMBER):**

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE REHABILITATION PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

Address:

By: \_\_\_\_\_ (Typed Name and Title) (SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_ (Typed Name and Title) (SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_ (Typed Name and Title) (SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)



**2738.01.04 Submittals – Prior to Final Payment.** The Contractor shall submit the information listed below for review and approval. Final Payment will not be made until all of the listed information has been reviewed and approved by the County.

- (a) The Contractor shall submit records of all test results performed clearly identifying location, pipe characteristics, observations, procedures, and results data. This information shall include the test pressure before and after grouting, the pressures during grouting, the volume of grout used at each location, the gel set time used, the barrel test results, and the grouting material used (including the names and quantities of additives).
- (b) The Contractor shall submit electronic video files for joint and/or service connection grouting work for each pipeline section in accordance with Section 2742, Television Inspection, and 2738.03.04(g)(9).

**2738.02 MATERIALS**

**2738.02.01 Contractor's Equipment.**

- (a) The Contractor shall certify that back-up equipment is available and can be delivered to the site within 48 hours and shall submit an equipment list to the County for approval before commencement of work.
- (b) Before commencement of work, the Contractor shall allow the County 48 hours to inspect the equipment to be used and allow the County to measure the internal dimensions of the tanks from which the sealing materials will be pumped. The Contractor shall demonstrate an acceptable technique for measuring the volume of the sealing materials in the tanks.
- (c) No work shall be performed or accepted if the Contractor's measurement equipment and/or measuring techniques are unacceptable to the County.

**2738.02.02 Cleaning Equipment.** Shall be in compliance with Section 2741, Sewer Line, Lateral, and Manhole Cleaning.

**2738.02.03 Video Inspection Equipment.** Shall be in compliance with Section 2742, Television Inspection.

**2738.02.04 Chemical Grout Equipment.**

- (a) Equipment for joint grouting shall be a remote controlled grout injection rig type with continuous air impervious inflatable diaphragms or packers at each end and other suitable approved devices which can be positioned to completely isolate each joint or break in the pipe and simultaneously permit sewage flow. The grouting device shall be a cylindrical casing type of a size less than the pipe diameter with two cables connected to both ends to pull it back and forth for positioning it in the line. Diaphragms or packers which are not airtight and may require extreme pressures to "seat" against the periphery of the pipe will not be allowed. Expansion shall be regulated by precise pressure gauges and controls. No device which is

- expanded mechanically will be allowed. An approved agitator shall be used during the entire sealing operation.
- (b) The service connection sealing packer shall be sized to accommodate the various diameters of existing sanitary sewer connections encountered. The service connection sealing inversion tubes shall accommodate four-inch and six-inch diameter service connections and laterals. The inversion tubes shall be a minimum of four feet long, and the circumference of the sealing length shall be sized to permit the passage of grout around the annulus without excess grout. Four-inch bladders will not be permitted in six-inch service connections. The last two feet of the inversion tube shall create an air-tight seal with the existing lateral pipe, so that no grout passes beyond the inversion tube. A sensing unit shall be located in the void and shall transmit pressure within an accuracy of 0.10 psi to a remote control panel.
  - (c) The Contractor shall perform a test demonstration to verify the accuracy of calibrations of pump pressures and liquid amounts injected per stroke prior to commencing sealing operations. If this test demonstration fails to show that readings are accurate, the Contractor shall be required to make required repair or adjustments to the equipment and gauges, and retest until the results are satisfactory to the County. This test demonstration may be required at any time during the sealing operation.

**2738.02.05 Air Test Equipment.**

- (a) When requested by the County, the test equipment shall be positioned on a section of sound sewer pipe and a demonstration performed as described herein. This procedure will demonstrate the authenticity of the air test equipment and verify that test requirements are within the pipe capability. If the test is not performed successfully, the Contractor shall be required to repair or otherwise modify his equipment, and re-test until the results are successful and satisfactory to the County. Test requirements will be adjusted to within the pipe integrity limits. This test may be required at any time during the Contract period.
- (b) The basic equipment used shall consist of a television camera, joint testing device (such as a packer), and test monitoring equipment. The equipment shall be constructed in such a way as to provide means for introducing the test medium (air), under pressure, into the void area created by the expanded ends of the testing device and means for continually measuring the actual static pressure of the test medium at and within the void area only.
- (c) Void pressure data shall be transmitted electrically from the void to the monitoring equipment. Example: via a TV picture of a pressure gauge located at the void, or via an electrical pressure transducer located at the void.
- (d) All test monitoring shall be above-ground and in a location to allow for simultaneous and continuous observation of the television monitor and test monitoring equipment by the County's representative.

**2738.02.06 Grout Materials for Joints and Service Connections.**

- (a) General: The Contractor shall select an acrylamide base gel, urethane base gel, acrylate gel, acrylic base gel, or urethane base foam as described in the paragraphs to follow. A dye shall be added to the grouting material to allow for visual confirmation that the packer was positioned over the joint or service connection during grouting operations.
- (b) The chemical grout shall be a liquid of low enough viscosity to be easily pumped to the site of a leaking joint or connection and shall: react quickly to seal the joint, defect, or service connection against infiltrating ground water, be able to tolerate some dilution and react in moving water during injection, be capable of holding occurring heads of up to 20-feet of water and normal pipe movements without leaking, and able to withstand the environment of a sewage collection system.
- (c) Once cured, the grout shall not degrade under dry or wet conditions. When submerged in water the grout must prevent infiltration through the soil ring, the pipe joints, and service connections.
- (d) The cured chemical grout shall be flexible (not brittle), non-biodegradable, chemically stable, and resistant to acids, alkalis, and organics found in wastewater and storm water.
- (e) The packaging of grout components shall be conducive to safely handling and storing in the field. Field cleanup must be performed without an inordinate use of flammable or hazardous chemicals.
- (f) All mixtures for gel or foam and quantities shall be submitted to the County for approval prior to beginning the grouting operation. Additives to increase the strength, adhesion, solution density, and viscosity shall be approved by the County prior to their use. Bulk fillers such as diatomaceous earth may be added to the grout mix up to ten percent by weight of the total mix. The mixtures, quantities, and additives shall all be based on the manufacturer's recommendations.
- (g) Root inhibitors, such as dichlobenil, shall be incorporated in the mix when roots are present in the service connections and joints. The root inhibitor shall be compatible with the grout mixture, and shall be approved by the grout manufacturer. The Contractor specifically covenants and agrees that he shall make no claim against the County for any damages that may occur as a result of any adverse effect the chemical root inhibitors may have upon the Contractor's equipment or personnel.
- (1) The active component for destroying intruding roots shall be a potent nonsystemic toxin that kills contacted roots at low concentration but does not permanently affect contacted parts of the plant a distance from the treated roots. The active ingredient must be spontaneously detoxified by natural chemical or biochemical processes in a relatively short time following its use.

The active ingredients shall have no adverse effect on the performance of a wastewater treatment plant, and shall be registered with the Environmental Protection Agency.

- (h) The specified materials are considered toxic and irritants to the skin and eyes. However, none of the materials in the grouting system shall present undue hazard to contract site personnel. Mixing, handling and pumping chemicals shall be done by personnel familiar with the handling of the chemicals involved. Proper protective outerwear including eye protection and respirators for inhalation protection shall be used while mixing or when otherwise exposed to close contact.
- (i) The chemical grout shall be mixed within the isolated area formed by the grouting rig or packer.
- (j) The amount of material necessary for various sizes and types of pipe joints and connections shall be calculated by the Contractor prior to injection.
- (k) The material selected shall have a cure time that is appropriate for the conditions encountered.

**2738.02.07 Acrylamide Base Gel.** The acrylamide base gel shall be based on a two-part chemical grout. The material shall have the following minimum properties:

- (a) A minimum of 10 percent acrylamide base material by weight in the total sealant mix. A higher concentration of acrylamide base material shall be used, when directed by the County, to increase strength or offset dilution during the induction period.
- (b) A controllable reaction from ten seconds to no more than one hour.
- (c) A viscosity of approximately 2 centipoise which can be increased with additives, as approved by the manufacturer.
- (d) Viscosity to remain constant throughout the induction period.
- (e) The ability to tolerate some dilution and react in moving water.
- (f) The reaction (curing) shall produce a homogeneous and firm gel.
- (g) Latex additive to increase the strength, adhesion, solution density and viscosity shall be used when directed by the County.
- (h) Use of catalyst containing dimethyl amino propionitrile (DMAPN) is prohibited.

**2738.02.08 Urethane Base Gel.** Urethane base gel materials shall have the following minimum properties:

- (a) One part urethane prepolymer thoroughly mixed with between five and ten parts of water by weight. The recommended mix ratio is one part

urethane prepolymer to eight parts of water (11 percent prepolymer). When high flow rates from leaks are encountered, the ratio of water being pumped may be lowered.

- (b) A liquid prepolymer having a solids content of 75 percent to 95 percent, and a specific gravity of greater than 1.00.
- (c) A liquid prepolymer having a viscosity of between 100 and 1,500 centipoise at 70 °F that can be pumped through 500 feet of ½-inch hose with a 1,000 psi head at a 1 ounce/second flow rate.
- (d) The water used to react the prepolymer should be in the pH range of five to nine.
- (e) A relatively rapid viscosity increase of the prepolymer/water mix. Viscosity increases rapidly in the first minute for one to eight prepolymer/water ratio at 50 °F.
- (f) The ability to increase mix viscosity, density, gel strength, and resistance to shrinkage by the use of additives to the water is required.

**2738.02.09 Acrylate Gel.** Acrylate Gel shall have a constant viscosity during the reaction period and have the following minimum properties:

- (a) Minimum 10 percent acrylate base material by weight or as specified by the manufacturer.
  - (1) In the total grout mix, a higher concentration (percent) of acrylate base material may be used to increase strength or offset dilution during injection.
  - (2) If acrylate base material is in 40 percent solution 27.5 percent by weight of total grout mix: 11 percent base material.
- (b) The viscosity of the acrylate gel shall be approximately 2 centipoises but can be increased with additives.
- (c) A controllable reaction time of 10 seconds to no more than 1 hour.
- (d) A curing reaction which produces a homogeneous gel.
- (e) Able to prevent dehydration and to increase mix viscosity, density, and gel strength by the use of additives.
  - (1) Diatomaceous earth can be added to concentration of five percent, by volume.
  - (2) Use of other additives following manufacturer's recommendations and the County's approval.

**2738.02.10 Acrylic Base Gel.** Acrylic base gel shall have the following minimum properties:

- (a) A minimum of 10 percent acrylic base material by weight in the total sealant mix. A higher concentration of acrylic base material shall be used, when directed by the County, to increase strength or offset dilution during injection.
- (b) The ability to tolerate some dilution and react in moving water.
- (c) A viscosity of approximately 2 centipoise, which can be increased with additives, when directed by the County.
- (d) A constant viscosity during the reaction period.
- (e) A controllable reaction time from 10 seconds to no more than 1 hour.
- (f) A reaction (curing), which produces a homogeneous gel.
- (g) The ability to increase mix viscosity, density, and gel strength by the use of additives.

**2738.02.11 Urethane Base Foam (Pipe Joints Only).** Urethane base foam shall have the following minimum properties:

- (a) One part of urethane prepolymer thoroughly mixed with one part of water by weight (50% prepolymer).
- (b) A liquid prepolymer having a minimum solids content of between 75 and 95 percent and a minimum specific gravity of 1.00.
- (c) A liquid prepolymer having a viscosity of 150 to 1,200 centipoise at 72°F that can be pumped through 500 feet of ½-inch hose with a 500 psi head at a 1 ounce/second flow rate.
- (d) Expansion and viscosity increases shall occur during injection foaming.

### **2738.03 CONSTRUCTION REQUIREMENTS**

#### **2738.03.01 Maintaining Existing Sewage Flows.**

- (a) Maintaining existing sewage flows during the entire rehabilitation operations shall be the responsibility of the Contractor. Precautions and methods to prevent sewage back-ups shall be employed as required. Sewage back-up damage and/or clean-up required due to the Contractor's operations shall be the responsibility of the Contractor. Violations from sewage spills shall be the sole responsibility of the Contractor and must be reported to the County Inspector, the Baltimore County Bureau of Utilities, and Maryland Department of the Environment. Contractor must complete and submit to the County Inspector an Incident Report, included in Section 2740, Flow Control.

- (b) Sewage flow control shall be in accordance with Specification Section 2740, Flow Control.

#### **2738.03.02 Cleaning Operations**

- (a) Cleaning of the sewer lines, service connections, and laterals shall be performed as specified in Section 2741, Sewer Line, Lateral, and Manhole Cleaning.
- (b) Recleaning: If a pipeline, service connection, or lateral is found not to be properly cleaned in the opinion of the County, the television and grouting equipment shall be removed and the sewer recleaned at no additional expense to the County.
- (c) The main line, service connection and lateral shall be cleaned prior to and following the grouting operations to remove dirt, debris, mineral deposits, grease, and roots prior to grouting and excess grout material that accumulates in the sewer pipe, service connection, or lateral following grouting operations. Excess grout is defined as grout that impedes or, if dislodged, may impede flow in the line. All cleaning shall be videotaped and provided to the County for review and approval.

#### **2738.03.03 Air Testing**

- (a) After the cleaning and television inspection operations are completed, as specified, the Contractor shall proceed with service connection and joint testing on the designated lines.
- (b) Air testing is intended to identify sewer pipe joints and service connections that are defective and that can be successfully sealed by internal pipe sealing/grouting process. Air testing is also used to test the effectiveness of the seal. Testing of joints and service connections that are visibly leaking is not required and will not be paid for by the County. Testing on cracked, broken pipe will not be required and will not be paid for by the County.
- (c) All testing shall be performed in the presence of the County, unless otherwise approved in writing by the County.
- (d) Air testing shall be performed before and after grouting operations by applying a positive air pressure to each joint and service connection and monitoring the pressure in the void.
- (e) Control Test. Prior to starting the air testing phase of the work, a two-part control test shall be performed, in conformance with ASTM F2304 and ASTM F2454, respectively. If the test readings are not accurate within  $\pm 0.5$  psi for void pressure repeatability, the Contractor must repair or adjust the equipment.
  - (1) To ensure the accuracy, integrity, and performance capabilities of the testing equipment, a demonstration test shall be performed

aboveground in a test cylinder constructed in such a manner that a minimum of two known leak sizes can be simulated. The technique will establish the test equipment performance capability in relationship to the test criteria and ensure that there is no leakage of the test medium from the system or other equipment defects that could affect the testing results. If this test cannot be performed successfully, the Contractor shall be instructed to repair or otherwise modify his equipment and re-perform the test until the results are satisfactory to the County. This test may be required at any other time during the testing work if the County suspects the testing equipment is not functioning properly.

- (2)** Joint Testing (only): After entering each manhole section with the test equipment, but prior to the commencement of joint testing, the test equipment shall be positioned on a section of sound sewer pipe between pipe joints, and a test performed as specified. This procedure will demonstrate the accuracy of the test equipment, as no joint will test in excess of the pipe capability. Should it be found that the barrel of the sewer pipe will not meet the joint test requirements (void pressure cannot be held for 60 seconds), the requirements will be modified as necessary.
- (f)** The testing device shall be positioned over the joint or service connection to be tested by means of a measuring device and CCTV camera in the line.
- (g)** The testing device shall be expanded so as to isolate the joint or service connection from the remainder of the line and create a void area between the testing device and the pipe joint or service connection.
- (h)** Air shall then be introduced into the void area until a pressure equal to 0.5 psi per vertical foot of pipe depth (not exceeding a test pressure of 10 psi for pipe joints and 6 psi for service connections) is observed with the void pressure monitoring equipment. Perform testing following ASTM F2304 and ASTM F2454 respectively. If the required test pressure cannot be achieved (due to joint leakage), the joint or service connection will have failed the test and shall be sealed as specified herein.
- (i)** After the void pressure is observed to be equal to or greater than the required test pressure, the air flow shall be stopped. If the void pressure decays by more than 2 psi within 15 seconds (due to service connection leakage) and more than 1 psi in 15 seconds (due to joint leakage), the joint or service connection will have failed the test and shall be sealed as specified herein.
- (j)** Upon completing the air testing of each individual joint or service connection tested, the packer shall be deflated with the void pressure meter maintaining the established air test pressure. Should the void pressure meter fail to drop to zero, the Contractor shall be instructed to clean his equipment of residual grout material or make the necessary equipment repairs to provide for an accurate void pressure reading.



- (k) Any joint or service connection failing the air test prior to grouting shall be sealed as specified herein and retested by the same void pressure method and procedures to verify the effectiveness of the sealing. This procedure will be repeated until the joint or service connection passes the test. Additional sealing and retesting after the initial sealing and retesting shall be at no cost to the County.
- (l) During the air testing work, the contractor shall record the following information on prepared testing logs:
  - (1) Date.
  - (2) Identification of the line segment or service connection tested.
  - (3) The depth of the line segment or service connection as measured from the downstream manhole.
  - (4) The test pressure used.
  - (5) Location (footage) of each joint tested.
  - (6) A statement indicating the test results (passed or failed) for each tested.

#### **2738.03.04 Grouting Joints, Defects, and Service Connections**

- (a) At the direction of the County, the Contractor shall be required to grout any or all pipe joints, defects, breaks, holes and other sources of possible ground water infiltration, and service connections within a sewer line as may be observed or recorded by television inspection in existing sanitary sewers of the size stated in the Bid Schedule, and as described herein. In addition thereto, the Contractor shall be required to seal any or all pipe joints, service connections, defects, breaks, or other portions of a sewer line, as directed by the County. Any joint, service connection, or defect that is sealed shall subsequently be tested by air testing procedures described herein. Costs related to the air test following the sealing will not be measured for payment nor constitute additional cost to the Contract Price, and shall be considered as incidental to the Contract.
- (b) Before the commencement of work, the Contractor shall provide a test demonstration of the fluid pumping equipment. The readings shall be accurate within  $\pm 0.1$  gal of chemical pumped or else the Contractor shall repair or adjust the equipment.
- (c) All pipe joints, service connections, and defects directed to be grouted shall be sealed by internal chemical grouting. The method used shall not damage, break, move or cause settlement of sewer pipe or manhole structures, and shall be such that the original cross-sectional area and shape of the interior of the sewer shall not be permanently reduced or changed. Any sewer that the County may deem damaged as a result of the

Contractor's operations shall be promptly repaired to the County's satisfaction at no expense to the County.

- (d) Sealing materials that set to a hard, rigid product capable of intrusion into the sewer line will not be acceptable. Areas of severely broken, crushed, eroded, misaligned, or otherwise damaged pipe or manholes which require excavation and replacement will be repaired within this Contract; or their exact location shall be determined and recorded by the Contractor during the conduct of the work.
- (e) If roots were detected during the Contractor's pre-construction CCTV inspection, these roots shall be removed immediately prior to any grouting operations. Cost related thereto will not be measured for payment nor constitute additional cost to the Contract Price, and shall be considered as incidental to the Contract. Roots must be cut. Foaming is not permitted.
- (f) Once the grout sealing is complete, the Contractor shall view each finished seal with a pan and tilt camera as the joint or service connection is put back into operation. The Contractor shall verify that the grout does not obstruct the flow through the pipe, service connection, or lateral. The Contractor shall correct this blockage at no cost to the County.
- (g) Application of Chemical Grout
  - (1) Each time a new batch of grout chemicals is mixed, the gel time shall be measured and recorded. A small quantity of the chemicals shall be taken from the ends of the packer hose and mixed in a paper cup and witnessed by the County. The gel time shall also be measured and recorded at the end of a shift. The gel time should be within the range specified by the manufacturer. If the grout does not gel per the manufacturer's recommendations, the Contractor shall discard the batch and create a new batch at the Contractor's expense.
  - (2) Jetting or driving pipes from the surface that could damage or cause undermining to the pipelines, will not be allowed. Excavating the pipe, which would disrupt traffic, undermine adjacent utilities and structures, will not be allowed.
  - (3) Provide chemical grouting of sewer joints, service connections, leaks, and breaks in the pipe when directed by the County by forcing sealing materials into and through any or all pipe line joints, service connections, leaks or defects from within the sewer pipe. If grouting operations restrict or prevent simultaneous sewage flow passage, the Contractor shall provide an approved plug and/or by-pass pumping system and shall be responsible for damage caused by sewage backup that may occur during the sealing operation. Maximum interruption of existing flows shall be limited to one hour.

- (4) The grouting injection rig shall be positioned over the sewer joint, service connection, leak, or defect in the pipe by means of a closed circuit television camera in the line. Accurate measurement of the location of the joint or service connection to be sealed shall be made, using a portion of the grouting rig as a “Datum” or measurement point. Such measurement or point shall also be used to record measurement of the repaired joint or service connection. A tight seal shall be obtained before the grouting process begins. If a tight seal is not obtained, the Contractor shall remove the equipment and make such adjustments as are required to obtain a tight seal. The chemical sealant shall be pumped into the isolated void area, through hose lines leading from aboveground. The chemical sealants shall be pumped with instant reading, metered flow controlled, positive displacement, proportioning pumps with pressures in excess of ground water pressures.
- (5) The pumping and mixing of the chemical grout material shall be performed in accordance with the manufacturer’s recommendations. The void pressure monitoring equipment described herein shall be operating during the sealing operations. The television, grout pumping and air pressure monitoring equipment shall be integrated so that proportions, quantities, and void pressures for materials and sealing can be instantly monitored and regulated in accordance with the type and size of the joint, service connection, and/or break in the pipe or leak.
- (6) In the event that large voids are encountered on the outside of the sewer, including the possibility of “piping” holes to the ground surface which could cause excessive use of grout, a change in operating pressures and pumping rates shall be made as directed by the County. In such instances, changes in operating procedures shall be accomplished by reducing pressures and pumping rates followed by a termination of pumping until a temporary “set” of the gel is obtained on the outside of the pipe. After a sufficient lapse of time, followed by an increase in pressure, resumption of pumping will occur until a proper seal of the joint or service connection is obtained.
- (7) Upon completion of the injection, the grouting rig shall be moved forward and backward, wiping away the excess grout and allowing the television camera to move to a suitable position for inspection and/or air test. Each joint, service connection, crack, or hole shall then be again air tested as specified hereinbefore. Should any joint, service connection, or defect fail to pass the air test, it shall be resealed and retested until the test requirement can be met. No additional payment shall be made for multiple attempts to seal a joint, service connection, or defect. No payment will be made for grouted joints and/or service connections (sealing plus sealing material) that do not meet test requirements.

- (8) The excess grouting material removed from the joint, service connection, or break by the grouting equipment shall be flushed or pushed forward to the next downstream manhole, removed from the sewer system and disposed of by the Contractor, and as recommended by the chemical grout manufacturer and in accordance with local, State and Federal regulations. In no case shall excess grout material from succeeding sections be allowed to accumulate and be flushed down the sewer.
- (9) The Contractor shall video tape the complete procedure during the sealing operation. The CCTV inspection shall be identified by manhole numbers and submitted as an electronic video file to the County for review and approval. The CCTV and grouting log shall include the date, manhole numbers, footage to the joint, defect, or service connection and void pressure readout. All data obtained during the sealing operation shall be recorded on the grouting log and submitted to the County. The Contractor shall record the following information on prepared testing logs:
  - i. Date.
  - ii. Location of the service connection tested.
  - iii. The distance of the joint or service connection as measured from the downstream manhole.
  - iv. The test pressure used.
  - v. A statement indicating the test results (passed or failed) for each tested joint or service connection.

#### **2738.03.05 Pipe Joint or Defect Grouting and Testing**

- (a) Pipe joint and/or defect grouting shall begin with the grouting device in position to isolate the defective joint or defect. The sleeves mounted on the casing of the device shall be pneumatically expanded from the center to both ends. When in an inflated state, two widely spaced annular bladders shall have been formed, each of an elongated shape and producing an annular void around the center portion of the casing. The pneumatically expanded sleeves shall seat against the inside periphery of the pipe in such a way as to form a void area completely isolated from the remainder of the line. The grouting material shall pass throughout one end of the casing and shall be adapted to supply the sealing material, under pressure, to the space at the center of the casing. The amount of chemical grout pumped is based on the number of strokes delivered to each pipe joint or defect. The number of strokes and amount of grout applied shall be recorded on the pipe joint or defect grouting log.
- (b) The gel time is typically between 20 and 40 seconds.

- (c) For successful sealing, the grout is pumped to refusal while under continual pressure. Refusal, as defined for pipe joint or defect repair, is up to ½ gallon per inch diameter pipe size. If the grout cannot be pumped to less than or equal to refusal, the pumping shall stop and grout staging shall be attempted, as directed by the County.
- (d) Once the joint or defect is sealed, the packer shall be deflated and moved at least one packer length in each direction to remove the extra gel. The grouted joints or defects shall be left reasonably flush with the existing pipe. The packer shall then be repositioned over the joint or defect and another air test shall be performed.
- (e) The air test shall result in a loss of less than or equal to 1 psi in 15 seconds for a successful seal. If the pressure drop is greater than 1 psi in 15 seconds, the joint or defect sealing will have failed and the Contractor shall grout the joint or defect again at no cost to the County.

#### **2738.03.06 Service Connection (Only) Grouting and Testing**

- (a) Service connection grouting shall begin with the packer in position to isolate the connection. With the packer remaining in position, chemical sealant is pressure injected into the annular space between the inversion tube and the lateral pipe. Under pressure, the grout material is forced out into the soil through leaking joints, cracks and other defects in the existing connection. The amount of chemical grout pumped is based on the number of strokes delivered to each service connection. The number of strokes and amount of grout applied shall be recorded on the service connection grouting log.
- (b) A gel time of 25 seconds is acceptable when using a low void packer and grouting 4 feet of the lateral from the connection.
- (c) The pump must be able to fill the void with grout before the grout begins to gel. After the void is filled, the pump shall maintain a back pressure of 8 psi into the void at the mainline level. Once the drop in pressure from 8 to 6 psi takes longer than 20 seconds after the pumping stops, the grouting will be considered complete.
- (d) If the effective quantity of grout required to fill the void exceeds 1 gallon/foot of sealing distance plus 3 gallons, it will be assumed that there are large voids on the outside of the pipe. In this case, grout staging shall be attempted, as directed by the County, until the refusal pressure of 8 psi is reached. If the grout consumption is too high, the County may call for an alternate sealing method.
- (e) Any extra grout shall be removed after the sealing operation and the service connection and lateral shall be left flush with the existing pipes.
- (f) Upon completion of the grout process, each service connection shall be air tested to verify the sealing of the connection. Air pressure shall be applied to the isolated void and recorded, and the pressure shall be recorded again

after 15 seconds. If the void pressure drop is greater than 2 psi, the service connection will be considered to have failed the air test and shall be grouted a second time at no cost to the County.

**2738.03.07 Monitoring Operations.** Shall be in compliance with Specification Section 2742, Television Inspection.

**2738.03.08 Photographs.** Furnish all equipment and film required to take digital photographs of the views which appear on the monitor. In the course of the inspection, the County will indicate the specific views which are to be photographed as a permanent record.

**2738.03.09 Records**

- (a) For each section of sewer or service connection grouted, complete, accurate and legible records of the grouting operations shall be kept by the Contractor, and copies in triplicate furnished to the County. A representative of the County shall be present during testing and sealing operations.
- (b) These records shall show the location of each operation or point of information relative to the centerline distance from adjacent manholes clearly defined. Measurement of location shall be readable at ground level by means of a measuring device. Marking on cable or the like will not be allowed. As each repair is accomplished, notations shall be made on the pertinent location record showing the amount of grout solution used, and any other pertinent information relative to the repair or as directed by the County.

**2738.03.10 Obstructions.** Obstructions may be encountered during the course of the sealing operations that prevent the travel of the packer and camera. Should an obstruction not be passable, the Contractor shall withdraw the equipment and begin sealing operations from the opposite end of the sewer reach.

- (a) Should additional obstructions be encountered after the equipment is reset and no means are available for passing the obstructions without damage to the equipment, these locations shall be noted and corrected by the Contractor as directed by the County in accordance with the bid items. Passing material from section to section which could be detrimental to pumping equipment or cause accumulations in wet wells will not be permitted. An approved dam, weir or screening device shall be constructed in the downstream manhole in such a manner that construction debris and solids will be trapped, retained and removed from the sewer.

**2738.03.11 Quality Assurance**

- (a) All sealing/grouting performed shall be guaranteed against faulty workmanship and/or materials for a period of one year after the completion and acceptance of the project.

- (b) Prior to the expiration of the guarantee period, an initial retest area consisting of specific line segments or service connections may be selected by the County. Line segments or service connections to be retested shall be randomly selected throughout the project area and shall be representative of the majority of the sealing work originally performed. The initial test area shall consist of at least 5%, but not exceed 10%, of the number of joints, defects, and/or service connections in the original project.
- (c) At the County's option, within the initial retest area, the Contractor shall retest all previously sealed joints, defects, or service connections as specified. Any joints, defects, or service connections failing the retest shall be resealed. If the failure rate of the retested joints, defects, or service connections is less than 5% of the joints retested, the work shall be considered satisfactory and no further retesting will be required. Payment for retesting the initial area shall be at the unit price bid for each item of work required (e.g.: cleaning, TV inspection, testing, etc.). No compensation shall be provided for resealing (grouting) joints, defects, or service connections that fail.
- (d) If, in the initial retest area, the failure rate of the retested joints, defects, or service connections exceeds 5% of the joints, defects, or service connections retested, an additional retest area of equivalent size shall be selected and all previously sealed joints, defects, and/or service connections shall be retested. This additional retesting and sealing, if necessary, will continue until a failure rate of less than 5% is met. Any additional testing/sealing required beyond the initial retest area shall be accomplished at no cost to the County.

## 2738.04 MEASUREMENT AND PAYMENT

**2738.04.01 Air Testing Joints.** Shall be measured in place per each joint tested, per pipe diameter.

- (a) **Basis of Payment.** Joint testing will be paid on a per joint basis for the initial test. Any joint testing performed in association with verifying joint sealing shall be incidental to the joint sealing work. The unit price includes all labor, incidentals, materials, resident notification, flow control, preconstruction video recording, confined space entry and equipment, sediment, debris, mineral deposits, grease, and root removal, chemical root treatment, traffic control, cleaning, television inspection, required testing, necessary permits, site cleanup, and all other work, not included under other items, necessary to complete the joint testing as specified.

**2738.04.02 Test and Chemically Grout Defects.** Shall be measured on the volume, in gallons, of grout pumped for each defect, including joints, and shall include air verification testing, in accordance with the Contract Documents and this Section.

- (a) **Basis of Payment.** Payment shall be made at the contract unit price bid per gallon of grout pumped for each defect, including joints, and shall include air verification testing. The unit price includes all labor,

incidentals, materials, setups, flow control, sediment, debris, mineral deposits, grease, and root removal, cleaning of main lines, chemical root treatment, confined space entry and equipment, dewatering, traffic control, pre- and post-cleaning and television inspection, sealing, necessary permits, testing, verification testing, and all other work, not included under other items, necessary to complete the sealing and testing as specified. No additional payment shall be made for verification testing of any defects. This cost shall be included in the sealing of defects.

**2738.04.03 Test and Chemically Grout Service Connections and First Joint Section.** Shall be measured on the volume, in gallons, of grout pumped for each service connection, including the first joint section, and shall include air verification testing, in accordance with the Contract Documents and this Section.

- (a) **Basis of Payment.** Payment shall be made at the contract unit price bid per gallon of grout pumped for each service connection, including the first joint section, and shall include air verification testing. The unit price includes all labor, incidentals, materials, setups, flow control, sediment, debris, mineral deposits, grease, and root removal, cleaning of main lines and service connections, chemical root treatment, confined space entry and equipment, dewatering, traffic control, pre- and post-cleaning and television inspection, sealing, necessary permits, initial air testing, verification testing, and all other work, not included under other items, necessary to complete the sealing and testing as specified. No additional payment shall be made for verification testing of any joints and/or service connections. This cost shall be included in the sealing of joints and/or service connections.

**2738.04.04 Air Test Service Connections and First Joint Section.** Shall be measured in place per each service connection, including the first joint section, tested in accordance with the Contract Documents and this Section.

- (a) **Basis of Payment.** Payment shall be made at the contract unit price bid per service connection, including the first joint section, tested. Any service connection or joint testing performed in association with verifying service connection sealing shall be incidental to the service connection sealing work. The unit price includes all labor, incidentals, materials, setups, flow control, sediment, debris, mineral deposits, grease, and root removal, cleaning of main lines and service connections, chemical root treatment, confined space entry and equipment, dewatering, traffic control, pre- and post-cleaning and television inspection, necessary permits, initial air testing, verification testing, and all other work, not included under other items, necessary to complete the testing as specified.

END OF SECTION



## SECTION 2740

### FLOW CONTROL

#### 2740.01 DESCRIPTION

**2740.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2740.01.02 Description of Work.** The Contractor shall furnish all labor, materials, equipment and supplies, and shall perform all work related to the control of sewage flow. The Contractor shall provide all pumps, piping and other equipment necessary to accomplish bypass pumping; perform all construction; obtain all permits; pay all costs; and perform complete restoration of all existing facilities and areas disturbed to conditions equal to or better than pre-construction conditions and to the satisfaction of the County. Flow control and routing methods shall be subject to review by the County prior to work commencing on each portion of the system.

#### 2740.01.03 General.

- (a) When the depth of flow in the sewer line being televised or repaired is above the maximum allowable for the proposed work (as specified in Section 2742), then the Contractor shall reduce the flow to the levels specified by manual operation of pump stations, plugging or blocking of the flow or by pumping and bypassing of the flow as acceptable to the County. Plugging or blocking of the flow shall only be allowed when the Contractor can demonstrate that the upstream gravity collection system can accommodate the surcharging without any adverse impact to the collection system or private property.
- (b) The depth of flow in the sewer line being televised or repaired shall not exceed that shown below for the operations indicated. Television inspection shall be performed as specified in section 2742 – Television Inspection.
  - (1) **Television Inspection Before and After Lining Installation.** Refer to Section 2742.
  - (2) **Pipe Lining Installation.** For the pipe lining installation the sewer line shall be blocked completely. No flow or flow depth, except infiltration, will be allowed through the sewer line. Infiltration shall be addressed as specified in the Contract Documents and on the Drawings.
- (c) Violations from sewage spills shall be the sole responsibility of the Contractor and must be reported to the County Inspector, the Baltimore County Bureau of Utilities, and Maryland Department of the Environment. Contractor must complete and submit to the County Inspector an Incident Report, which is included in this section. The “Basement - Sewage Backup Report” shall be used for basement back-ups. The “Telephone

Sewage Overflow Report” shall be used for all other back-ups, stoppages, and/or overflows.

- (d) The bypass system shall meet the requirements of all codes and regulatory agencies having jurisdiction.
- (e) As part of flow control plans, the Contractor shall be responsible to notify sewer customers where that service will be disturbed for each segment of rehabilitation and replacement. The Contractor shall advise the customers by written notice that service will be interrupted. Service shall promptly be restored and will not be shut off for extended periods of time.

**2740.01.04 Submittals.** The Contractor shall submit to the County a detailed plan and description outlining all provisions and precautions that the Contractor shall take regarding the handling of wastewater flows during sewer rehabilitation. The plan shall be submitted to the County for review and approval at least 7 days prior to commencing work on each portion of the system to be rehabilitated. Flow control includes, but is not limited to, plugging, bypass pumping or trucking as deemed appropriate for the work performed. The plan must be specific and complete, and shall include, but not be limited to, the following details:

- (a) Schedule for installation and maintenance of bypass pumping system.
- (b) Staging areas for pumps and site access point(s), including design plans and computation for access to bypass pumping locations. Contractor shall indicate locations on the drawings.
- (c) Bypass pump sizes, including calculations to validate size selected, capacity, number of each size to be on site, and power requirements.
- (d) Unless otherwise noted in the construction documents, the bypass shall be sized for ~~<1.0>~~ ~~<1.25>~~ ~~<1.5>~~ **(choose one)** times the maximum calculated capacity of the pipe for pipes 10" in diameter and greater.
- (e) Calculations of static lift, friction losses, and flow velocity (pump curves showing pump operating range shall be submitted).
- (f) Road crossing details, where applicable.
- (g) Sewer plugging methods, type of plugs, and bypass time duration for each sewer section.
- (h) Size, number, length, material, location and method of installation for suction and discharge piping.
- (i) Sections showing suction and discharge pipe depth.
- (j) Method of noise control for each pump and/or generator.
- (k) Standby power generator size and location.

- (l) Downstream discharging plan.
- (m) Methods of protecting discharge manholes or structures from erosion and damage.
- (n) Restraining lengths for piping. Thrust blocks will not be allowed as a method of restraint for bypass pumping systems.
- (o) Temporary pipe supports and anchoring required.
- (p) Location of fuel tank(s) and other potential contaminants.
- (q) Reliability methods including float switches, visual and audible alarms, and pump controls.
- (r) Overflow Prevention, Contaminant and Cleanup Plan.
- (s) Procedures to monitor upstream mains for backup impacts.
- (t) Procedures for setup and breakdown of pumping operations.
- (u) Emergency plan detailing procedures to be followed in event of pump failures, sewer overflows, service backups, and sewer spillage. Maintain a copy of this emergency plan on site for the duration of the project.

## **2740.02 MATERIALS**

### **2740.02.01 General.**

- (a) The Contractor shall provide the necessary operating controls for each pump.
- (b) The Contractor shall provide either bypass redundancy for the largest pump or a minimum of 50% pump capacity of the total required flow within the system, whichever is greater with respect to flow volume. The intent of the redundant pump capacity is to ensure adequate back-up pumps are immediately available to the system. Back-up pumps shall be on-line, isolated from the primary system by a valve. Keep and maintain spare parts for pumps and piping on site, as required. Maintain adequate hoisting equipment and accessories on site for each pump.
- (c) Pumps shall be fully automatic, self-priming units that do not require the use of foot valves or vacuum pumps in the priming system. The pumps shall also be electric or diesel powered and constructed to allow dry running for long periods of time to accommodate the cyclical nature of effluent flows.
- (d) Discharge Piping. In order to prevent the accidental spillage of sewage, all discharge systems shall be temporarily constructed of rigid pipe with

positive, restrained joints. Only materials that withstand pressures greater than the peak bypass system pressures, as determined according to flow calculations and system operating calculations, may be used. All materials shall be suitable for contact with domestic sanitary sewage. Under no circumstances will aluminum "irrigation" type piping or glued PVC pipe be allowed. Discharge hose will only be allowed in short sections and by specific permission from the County. The bypass pumping system shall be 100% watertight. The Contractor shall perform leakage and pressure tests on discharge piping using clean water, before operation.

- (e) Bypassed flows shall be discharged to the sanitary sewer system, trucked using appropriate watertight vehicles or watertight containers, or otherwise handled to prevent flows from interfering with the work to be performed on that portion of the system.

### **2740.03 CONSTRUCTION REQUIREMENTS**

#### **2740.03.01 Preparation.**

- (a) The Contractor is responsible for locating any existing utilities in the area where the Contractor selects to locate the bypass pipelines. The Contractor shall locate his bypass pipelines to minimize any disturbance to existing utilities and shall obtain approval of the pipeline locations from the County and affected utility agencies. All cost associated with relocating utilities and obtaining all approvals are considered incidental and shall be paid by the Contractor.
- (b) When working inside a manhole or force main, the Contractor shall exercise caution and comply with OSHA requirements when working in the presence of sewer gases, combustible or oxygen-deficient atmospheres, and confined spaces.
- (c) The Contractor is responsible for obtaining any approvals for placement of the temporary pipeline within public ways from the Maryland State Highway Administration and Baltimore County.
- (d) Transport, deliver, handle, and store pipe, fittings, pumps, ancillary equipment and materials to prevent damage and following the manufacturer's recommendations. Inspect all material and equipment for proper operation before initiating work.
- (e) Material found to be defective or damaged due to the manufacturer or shipment shall be repaired or replaced, as recommended by the manufacturer, at no cost to the County.
- (f) Remove manhole sections or make connections to existing sewer and construct temporary bypass pumping structures as required to provide adequate suction conduit.

**2740.03.02 Plugging and Blocking.** Plugging or blocking of sewage flows shall incorporate a primary and secondary plugging device. Sewer line plugs shall be inserted into

the line upstream of the section being televised or repaired. The plugs shall be so designed that all or any portion of the upstream flow can be released. During the television inspections and repair operations, the flow through the line being worked on shall be reduced to within the maximum limits stated in this specification section. When plugging or blocking is no longer needed for performance and acceptance of work, remove in a manner that permits the sewage flow to slowly return to normal without surge, to prevent surcharging or causing other major disturbances downstream.

### **2740.03.03 Pumping and Bypassing.**

- (a) When pumping and bypass pumping is required, the Contractor shall supply all necessary pumps, conduits, engines, and other equipment to divert the flow around the pipe section in which work is to be performed. The contractor shall calculate the maximum carrying capacity of the system to be rehabilitated, at the diameters and slopes provided on the Contract Drawings. The Contractor shall have backup equipment available should the primary system fail, and the pumping/bypass system shall be adequate in size to handle the existing peak use flows and additional flows that occur with rainstorms or snowmelt events.
- (b) The Contractor shall be responsible for furnishing the necessary labor and supervision to set up, maintain, and operate the pumping and bypassing system at all times. Pumps and equipment shall be continuously monitored by the Contractor during the periods that pumping and bypassing are required. If pumping is required on a 24-hour basis, engines shall be equipped in a manner to keep noise to a minimum, as specified in the paragraph below.
- (c) The Contractor shall select pumping/bypassing equipment that will not have excessive noise levels and shall be restricted to a maximum of sixty-nine (69 dB) at a distance of 30-feet.
- (d) Unless otherwise approved by the County in writing, the bypass system shall remain in place until all pipeline, manholes, and lateral replacement and/or rehabilitation have been complete and tested. If tasks are not complete as per the Contract Documents, full compensation will not be received for that respective task. The County will not incur costs for re-mobilization of the bypass system due to Work deemed unacceptable.

### **2740.03.04 Flow Control Precautions**

- (a) When flow in a sewer line is plugged, blocked or bypassed by the Contractor, he shall take sufficient precautions to protect the public health and to protect the sewer lines from damage that might result from sewer surcharging. Further, the Contractor shall take precautions to insure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved. The Contractor shall be responsible for any damage resulting from his flow control operations.

- (b) When flow in a sewer line is plugged or blocked by the Contractor, he shall monitor the conditions upstream of the plugs and shall be prepared to immediately start bypass pumping, if needed. Any liquid or solid matter which is bypass pumped from the sewer collection system shall be discharged to another sewer manhole or appropriate vehicle or container only. No such liquid or solid matter shall be allowed to be discharged, stored or deposited on the ground, swale, road, stormwater drainage system or open environment. The Contractor shall protect all pumps, conduit and other equipment used for bypass from traffic, vandalism, or other possible sources of damage.
- (c) Should any liquid or solid matter from the sewer collection system be spilled, discharged, leaked or otherwise deposited to the open environment or private property, including but not limited to basements, as a result of the Contractor's flow control operations, he shall be responsible for all cleanup and disinfection of the affected area and all associated costs, including any fines or penalties resulting from the discharge. The Contractor shall also be responsible for notifying the sewer system operating personnel and appropriate regulatory agencies and performing all required cleanup operations at no additional cost to the County. Any sewer spills shall be reported within 24 hours to the Baltimore County Bureau of Utilities (at 410-887-7415) and to MDE (at 410-537-3510 during working hours and 866-633-4686 after hours and on weekends) and an Incident Report shall be completed and provided to the County Inspector.

#### **2740.04 MEASUREMENT AND PAYMENT**

**2740.04.01 Flow Control for Typical Rehabilitation and Replacement Projects.** This item will not be measured for payment.

- (a) **Basis of Payment.** Payment for flow control will be considered incidental and the cost for flow control shall be included in the prices bid for items in the proposal and as defined in these Specifications.

**2740.04.02 Ancillary Flow Control, in excess of 1 MGD.** The quantity for Bypass Pumping of Sewage above 1 MGD (amount less is considered incidental and no separate payment is made) as required to complete the sewer system work covered in this contract.

- (a) **Basis of Payment.**

- (1) **Bypass Setup.** The unit price will be full compensation provided for all labor, materials, equipment, tools and incidentals for pump setup, plugging, pumping and diversion of sewage flow from sewer pipelines for each bypass pumping setup performed. Compensation will be based on the maximum flow capacity (MGD) as described in Section 2740.03.03.a. The maximum flow capacity shall be approved by the County prior to the start of work.

- (2) **Bypass Operation.** Payment for sewer flow control operation shall be based on the unit price each day (ED), as stipulated by the maximum bypass flow capacity. The contract price shall include the complete operation and maintenance of a fully functional and operational flow control system.

END OF SECTION



**BALTIMORE COUNTY  
DEPARTMENT OF PUBLIC WORKS  
BASEMENT – SEWAGE BACKUP REPORT**

E-mail completed form with pictures to: [utilities@baltimorecountymd.gov](mailto:utilities@baltimorecountymd.gov)

DATE \_\_\_\_\_ RESPONSIBLE PARTY \_\_\_\_\_

AREA \_\_\_\_\_ SEWER LINE SEGMENT(S) ID \_\_\_\_\_ ☐ M/L ☐ Lateral County

OWNER/RESIDENT \_\_\_\_\_ PHONE #1 \_\_\_\_\_

ADDRESS \_\_\_\_\_ ZIP \_\_\_\_\_ PHONE #2 \_\_\_\_\_

CLAIM INFORMATION PROVIDED? \_\_\_\_\_

DESCRIBE DAMAGE TO BASEMENT (PICTURES REQUIRED) \_\_\_\_\_

**CAUSE (Check all that apply):** ☐ Cleaning ☐ Debris ☐ Defective Pipe ☐ Offset Joints ☐ Lining Operation (Contractor)

☐ Unknown ☐ Other \_\_\_\_\_ ☐ Vandalism \_\_\_\_\_

BASEMENT CLEANED BY: ☐ Baltimore County ☐ Property Owner ☐ OTHER \_\_\_\_\_  
NAME (if known)

WORK DONE: ☐ PUMPED ☐ WET-VAC ☐ MOP ☐ DISINFECT ☐ OTHER \_\_\_\_\_

LOCATION OF SEWAGE DISPOSAL: ☐ Trash ☐ Sanitary Sewer System ☐ Unknown

TIME STARTED BASEMENT \_\_\_\_\_ FINISHED BASEMENT \_\_\_\_\_

OTHER PROPERTIES/ADDRESSES AFFECTED \_\_\_\_\_

REMARKS: \_\_\_\_\_

**GALLON CALCULATION:** LENGTH \_\_\_\_\_ (FT) X WIDTH \_\_\_\_\_ (FT) X DEPTH \_\_\_\_\_ (NOTE: 1" =

.083) X 7.48 = \_\_\_\_\_ # GALLONS

REPORT PREPARED BY:

PRINT NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_



**SEWAGE OVERFLOW REPORT**  
BALTIMORE COUNTY BUREAU OF UTILITIES

<b>OVERFLOW Location – FULL address</b>		
<b>Manhole(s) # or Segment(s):</b>		
<b>Zip Code:</b>		
<b>Estimated Overflow of Gallons:</b>		<b>SSA:</b>
<b>Name and Type of Facility:</b> MH / Pipe / Force Main / PS / WWTP		
<b>Cause of Overflow:</b>		
<b>Date Overflow Occurred:</b>	<b>Time Started:</b>	<b>Time Stopped:</b>
<b>Ongoing or Repaired:</b>	<b>Duration:</b>	
<b>Correction:</b>		
<b>Type of Clean up or Mitigation:</b>		
<b>Additional Comments:</b>		
<b>Contractor's Contact Name:</b>		
<b>Contractor's Contact Number:</b>		
<b>Contractor's Signature:</b>		<b>Date:</b>
<b>Inspector's Name:</b>		
<b>Inspector's Contact Number:</b>		
<b>Inspector's Signature:</b>		<b>Date:</b>

## SECTION 2741

### SEWER LINE, LATERAL, AND MANHOLE CLEANING

#### 2741.01 DESCRIPTION

**2741.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2741.01.02 Description of Work.** The work covered by this section consists of providing all labor, equipment, material and supplies and performing all operations required to clean sewer lines, laterals and manholes prior to the internal television inspection(s) and repair operations.

**2741.01.03 Sewer Line and Lateral Cleaning.** The intent of sewer line cleaning is to remove foreign materials (sediment, grease, broken pipe, roots, etc.) from the pipes, laterals, and manholes to prepare the lines for television inspection and repair operations. Since the success of other phases of work depends a great deal on the cleanliness of the lines, the importance of this phase of the operation is emphasized. It is recognized that there are some conditions such as broken pipe and major blockages that prevent cleaning from being accomplished or where additional damage would result if cleaning were attempted or continued. Should such conditions be encountered, the Contractor shall immediately coordinate with the County to determine the necessary course of action.

- (a) Light cleaning is defined as the removal of debris from a sewer system, using up to three passes with approved cleaning equipment, with minimal or no material removal upon the completion of the three passes. Light cleaning typically requires the use of hydraulic high pressure sewer cleaners.
- (b) Heavy sewer cleaning is defined as cleaning required, in addition to the light cleaning, to remove large amounts of debris from a sewer system. Debris can include excessive grease, large stones, bricks, and heavy root growth from trees. Heavy cleaning typically requires the use of bucket machines and mechanical cleaning equipment such as scrapers, scooters, heavy duty brushes, metal pigs and other approved debris removing equipment.

**2741.01.04 Manhole Cleaning.** All concrete and masonry surfaces must be clean prior to repair. Grease, laitance, loose bricks, mortar, unsound concrete, wall mounted steps (cut flush with wall), and other materials must be completely removed. Water blasting (minimum 1200 psi) utilizing proper nozzles shall be the primary method of cleaning; however, other methods such as wet or dry sandblasting, acid wash, concrete cleaners, degreasers or mechanical means may be required to properly clean the surface. Surfaces on which these other methods are used shall be thoroughly rinsed, scrubbed, and neutralized to remove cleaning agents and their reactant products.

**2741.01.05** Satisfactory precautions shall be taken to protect the sewer lines and laterals from damage that might be inflicted by the improper use of cleaning equipment. Sewers, including service laterals, damaged as a result of the Contractor's or his subcontractor's improper operations shall be promptly repaired by the Contractor at no cost to the County.

**2741.01.06** **Submittals.** The Contractor shall submit a disposal plan for review and acceptance by the County prior to beginning any work that may generate waste materials. A plan shall be submitted for each job order. The plan shall include a complete description of the materials that are expected to be encountered and their proposed disposal site(s). The Contractor may change his disposal plan only by written notice to the County. The acceptance of a plan and/or any related notice to the County must be evidenced by a written response from the County. The Contractor shall insure that all permits related to his disposal operations have been obtained, and the Contractor shall comply with all requirements of those permits. The Contractor shall show evidence that all required permits have been obtained for all disposal sites by submitting a copy of all such permits to the County as part of the Contractor's disposal plan. The Contractor shall also submit copies of records of all disposals of solids or semisolids resulting from cleaning operations. Expenses related to the disposal plan and related disposal activities, including debris disposal, shall be considered incidental and included in the cost of the project.

## **2741.02 MATERIALS**

**2741.02.01** **General.** The Contractor shall certify that backup equipment is available and can be delivered to the site within 24 hours.

### **2741.02.02 Cleaning Equipment**

- (a) It is at the Contractor's discretion which type of equipment shall be used for cleaning of the manholes, mainline sewers, and service laterals. However, the equipment may be subject to approval by the County.
- (b) The Contractor shall provide all equipment necessary for proper rodding, bucketing, brushing, root cutting and flushing of the sewers in the sizes indicated in the Bid Schedule. When selecting the appropriate cleaning equipment, the Contractor shall note the condition and ovality of the pipe based on available data, including the Contract Plans and existing television inspection data. The Contractor shall note the dates of the television inspections and make reasonable assumptions about deterioration and root growth/intrusion in the line since the inspections. The County will not accept responsibility, nor incur additional costs for reasonable deterioration or root growth/intrusion in the line. The equipment used for cleaning shall be that of a heavy duty power rodding machine which is capable of rodding distances of up to 1,000 feet in one setup. It shall have the ability to spin the rod either clockwise or counterclockwise, be able to be pushed straight out or pulled back without rotating the machine. It shall also be capable of pulling pipe-size swabs or brushes back through the pipeline for cleaning and flushing purposes.

- (c) The Contractor shall also provide heavy-duty bucket machines, as necessary, for use on dragline work to clean the pipeline with buckets, brushes, scrapers, swabs or other similar devices in order to effectively remove the debris and provide a clean sewer for the inspection. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. The equipment used will be subject to approval by the County.
- (d) Hydraulic high-pressure sewer cleaners used for sanitary sewer cleaning shall be specifically designed and constructed for such cleaning. The sewer cleaner shall have a minimum usable water capacity of 600 gallons and a pump capable of delivering at least 30 gallons per minute (gpm) at 100 psi. Pressure to the nozzle shall be regulated by a relief valve adjustable from 1-1500 psi minimum. The equipment will be subject to approval by the County.
- (e) All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high-velocity gun for washing and scouring manhole walls and floor. The gun shall be capable of producing flows from a fine spray to a solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel.
- (f) Pigging: The hydraulically propelled equipment used shall be a movable dam type and be constructed in such a way that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the sewer. The movable dam shall be equal in diameter to the pipe being cleansed and shall provide a flexible scraper around the outer periphery to insure removal of grease. If sewer cleaning balls or other equipment, which cannot be collapsed, are used, special precautions to prevent flooding of the sewers and public or private property shall be taken.
- (g) All equipment, devices, and tools required for this Contract shall be owned (or leased) and operated by the Contractor.

### **2741.03 CONSTRUCTION REQUIREMENTS**

#### **2741.03.01 General.**

- (a) Refer to Section 2731 for Preparatory Procedures.
- (b) Approval for potable water withdrawn from hydrants must be obtained from the County prior to any cleaning operations. Refer to Section 2731 for additional requirements. The Contractor is responsible for hauling and delivery of all potable water.

- (c) The designated sewer sections shall be cleaned using hydraulically propelled, high-velocity jet, or mechanically powered equipment. The equipment shall be capable of removing loose scale, tuberculation, oil, remains of old coating materials, accumulations of debris, dirt, grease, rocks, sand, and other materials and obstructions from the sewer lines, laterals, and manholes. A minimum of three passes of the cleaning equipment shall be required.
- (d) If cleaning of an entire sewer section cannot be successfully performed from one manhole, the equipment shall be set up on the other manhole and cleaning again attempted. If, again, successful cleaning cannot be performed or the equipment fails to traverse the entire manhole section, it will be the responsibility of the Contractor to provide CCTV evidence to the County for further instruction. If successful cleaning cannot be performed then supplemental heavy cleaning may be required upon approval by the County.
- (e) Cleaning shall be performed immediately before in-situ repair or lining of the sanitary sewer line, manhole, and/or lateral. If deemed necessary by the County, cleaning shall also be performed prior to post-CCTV inspections.
- (f) Existing flows shall not be interrupted for periods longer than one hour. The Contractor shall take necessary precautions to prevent sewage backup and shall be responsible if damage results therefrom. Sewage diverted during cleaning operations shall be returned to the sanitary system and not discharged into the streams, any surface, or storm drain system.
- (g) Debris accumulated during the cleaning operations shall be removed from the sewer and properly disposed of in accordance with the approved disposal plan. Debris shall not be returned to the sanitary system, streams or storm drain system.

#### **2741.03.02 Cleaning Precautions.**

- (a) During all cleaning and preparation operations all necessary precautions shall be taken to protect the sewer from damage. During these operations, precautions shall be also taken to insure that no damage is caused to public or private property adjacent to or served by the sewer or its branches. Any damage caused to public or private property as a result of such cleaning and preparation operations shall be restored to preexisting conditions by the Contractor at no additional costs to the County.
- (b) Satisfactory precautions shall be taken in the use of cleaning equipment. When hydraulically propelled cleaning tools (which depend upon water pressure to provide their cleaning force) or tools which retard the flow in the sewer line are used, precautions shall be taken to insure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. When possible, the flow of sewage in the sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices. When additional water from fire hydrants is necessary

to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. Adequate backflow prevention will be required on each fire hydrant, per Section 2731. Access to fire hydrants for the purpose of fire protection shall be maintained at all times.

- (c) Violations from sewage spills shall be the sole responsibility of the Contractor and must be reported to the County Inspector, the Baltimore County Bureau of Utilities, and Maryland Department of the Environment. Contractor must complete and submit to the County Inspector an Incident Report, which is included in this section. The "Basement - Sewage Backup Report" shall be used for basement back-ups. The "Telephone Sewage Overflow Report" shall be used for all other back-ups, stoppages, and/or overflows.
- (d) Contractor shall not surcharge the sewer beyond the elevation that could cause overflow of sewage into area waterways, homes, or buildings or onto the ground.
- (e) Sewer damaged, as a result of the Contractor or his subcontractors' improper operations, shall be promptly repaired by the Contractor at no cost to the County.
- (f) Chemical, mechanical, and herbicidal cleaning shall be completed prior to any repair or relining work.

**2741.03.03 Obstruction Removal.** The line shall be cleared of obstructions such as solids, dropped joints or collapsed pipe that may prevent liner installation. If inspection reveals an obstruction that cannot be removed by conventional remote in-situ sewer cleaning equipment, then a point repair excavation shall be made to remove or repair the obstruction. Point repairs shall be made only after cleaning methods were performed and shall be approved in advance by the County.

**2741.03.04** Protruding service connections shall be removed prior to liner installation. These connections shall be removed using remote in-situ removal equipment. Point repairs shall be made only after remote protruding service removal methods were attempted and shall be approved in advance by the County.

**2741.03.05 Root Removal.** Roots shall be removed in all pipe sections, laterals, and manholes where root intrusion is a problem and where authorized by the County. Special attention should be used during the cleaning operation to assure almost complete removal of roots from the joints. Any roots which could prevent the proper seating of the packer or could prevent the proper application of chemical sealants, or could prevent the proper seating and application of liners, shall be removed. Procedures may include, but are not limited to, the use of equipment that can be used and operated remotely, mechanical equipment such as rodding machines, bucket machines and winches using root cutters and porcupine, and equipment such as high-velocity jet cleaners. Contractor shall capture and remove all roots from the line at the downstream manhole.

**2741.03.06 Waste Material Removal and Disposal.**

- (a) All sludge, dirt, sand, rocks, grease, roots, and other solid or semisolid waste material resulting from the cleaning operation shall be removed at the downstream manhole of the section being cleaned. When hydraulic cleaning equipment is used a suitable dam or weir shall be placed in the downstream manhole to trap all such materials. Passing material from pipeline section to pipeline section, which could cause line stoppages, accumulations of debris in wet wells, or damage pumping equipment, shall not be permitted.
- (b) Under no circumstances shall sludge or other debris removed during these operations be dumped or spilled into streets, ditches, storm drains or other sanitary sewers. All solids or semisolids resulting from the cleaning operations shall be removed from the site and disposed of by the Contractor in a legal and sanitary manner, in accordance with the approved disposal plan, as approved by appropriate authorities at the Contractor's cost. In addition to the disposal plan, the Contractor shall furnish copies of disposal records to the County, indicating disposal site, date, amount and a brief description of material disposed. All materials shall be removed from the site no less often than the end of each workday. Under no circumstances will the Contractor be allowed to accumulate debris, etc., on the site of work beyond the stated time, except in totally enclosed containers and as acceptable to the County. The Contractor is advised that he shall not dispose of this material by legal or illegal dumping on private or public property, by sale to others, or any means other than those given above.
- (c) The Contractor shall keep his haul route and work area(s) neat and clean and reasonably free of odor, and shall bear all responsibility for the cleanup of any spill which occurs during the transport of cleaning/surface preparation by-products and the cleanup of any such material which is authorized by or pursuant to this Contract and in accord with applicable law and regulations. The Contractor shall immediately clean up any such spill, or waste. If the Contractor fails to clean up such spill, or waste immediately, the County shall have the right to clean up or arrange for its cleanup and shall charge to the Contractor all costs, including administrative costs and overhead, incurred by the County in connection with such cleanup. The County shall also charge to the Contractor any costs incurred or penalties imposed on the County as a result of any spill, dump or discard. Under no circumstances is this material to be discharged into the waterways or any place other than where authorized to do so by the appropriate authority. The term "Contractor" as used in this section shall include the Contractor's subcontractors and other Contractors.
- (d) The general requirements for vehicles hauling such waste material are as follows: Transport vehicles must be of type(s) approved for this application by the political jurisdictions involved. General requirements are that the vehicles have watertight bodies, that they be properly equipped and fitted with seals and covers to prohibit material spillage or drainage, and that they be cleaned as often as is necessary to prevent deposit of material on roadways. Vehicles must be loaded within legal weight limits and operated safely within all traffic speed regulations.

- (e) The routes used by the Contractor for the conveyance of this material on a regular basis shall be subject to approval by the governing authority having jurisdiction over such routes.

#### **2741.03.07 Acceptance of Cleaning Operation.**

- (a) In Support of Pre- and/or Post-Rehabilitation Activities: In support of pre-rehabilitation activities, sewer line and lateral cleaning shall be deemed acceptable when the pipe is clean enough for installation of the particular rehabilitation method, in accordance with the manufacturer's recommendations and to the satisfaction of the County. If internal sealing is to follow the television survey, particular attention should be given to the adequacy of the cleaning to insure that proper seating of the sealing packer can be achieved. In support of post-rehabilitation activities, acceptance of sewer line cleaning shall be deemed sufficient when the pipe is clean enough for post-CCTV inspections, per Section 2742, and the County's approval.
  - (1) CCTV inspection shall be performed immediately following cleaning of the line and in no case more than 24 hours later. If the television inspection shows the cleaning to be unsatisfactory, the Contractor shall be required to re-clean and re-inspect the sewer line and/or laterals until the cleaning is shown to be satisfactory, at the Contractor's expense.
- (b) Sewer Cleaning Only: Sewer line cleaning shall be accepted when all debris has been removed from the sewer line section.
- (c) In addition, on all sewer lines which have sags or dips, to an extent that the television camera lens becomes submerged for two (2) or more feet during the television inspection, the Contractor shall pull double squeegee and/or sponges through the line in order to remove the water from the dips or sags. Water removal through squeegees and/or sponges shall be performed until the television camera lens will no longer be submerged. This requirement may be waived by the County if the water in which the camera lens is submerged, is clear enough to allow the identification of pipe defects, cracks, holes and location of service connections. The Contractor shall notify the County of any dips or sags in excess of two feet in length.

#### **2741.04 MEASUREMENT AND PAYMENT**

##### **2741.04.01 Cleaning for Pipes, Laterals, and/or Manholes to be Lined and/or Repaired.** This item will not be measured.

- (a) **Basis of Payment.** Payment for sewer line, lateral, and manhole cleaning, for the purpose of pre- or post-lining operations, will be included in the prices bid for items in the proposal and as defined in these Specifications.



**2741.04.02      Cleaning for Laterals to be Rehabilitated.** This item will not be measured.

- (a)      **Basis of Payment.** Payment for sewer lateral cleaning, for the purpose of pre- or post-lining operations, lateral grouting, sealing, lining and/or any other lateral rehabilitation work will be included in the prices bid for items in the proposal and as defined in these Specifications.

**2741.04.03      Supplemental Heavy Cleaning of Main Lines.** The quantity of sewer lines cleaned will be measured in linear feet, of each size range, for the length requiring heavy cleaning, horizontally along the center line of the cleaned pipes. This item will only be measured for payment if identified as a specific bid item and/or if approved by the County on a case-by-case basis.

- (a)      **Basis of Payment.** The payment for supplemental heavy cleaning, including root, obstruction, and grease removal, will be paid at the prices bid per linear foot for the size ranges given, in addition to the unit price quoted for cleaning and video inspection, as approved by the County, when the sewer being cleaned contains sediments and debris accumulations which exceed one-third of the pipe's vertical diameter. The unit price per linear foot will be full compensation for providing for all labor, confined space entry and equipment, traffic control, flow control, materials, equipment, tools, waste material removal and disposal, and incidentals for cleaning of sewer of pipe size 6 to 18 inches. The unit price per linear foot shall also include reconstruction of manholes which are dismantled for access of cleaning equipment, and repair of any damages caused by the dismantling or cleaning equipment.

**2741.04.04      Supplemental Heavy Cleaning of Laterals.** The quantity of service laterals cleaned will be measured in linear feet, of each size range, from the centerline of the mainline service connection to the centerline of the upstream access structure (i.e. cleanout) horizontally along the center line of the cleaned laterals. This item will only be measured for payment if identified as a specific bid item and/or if approved by the County on a case-by-case basis.

- (a)      **Basis of Payment.** The payment for supplemental heavy cleaning, including root, obstruction, and grease removal, will be paid at the prices bid per linear foot for the size ranges given, in addition to the unit price quoted for cleaning and video inspection, as approved by the County, when the lateral being cleaned contains sediments and debris accumulations which exceed one-third of the pipe's vertical diameter. The unit price per linear foot will be full compensation for providing for all labor, confined space entry and equipment, traffic control, flow control, materials, equipment, tools, waste material removal and disposal, and incidentals for cleaning of laterals 4 to 6 inches.

END OF SECTION



**Baltimore County**  
**Department of Public works**  
**Basement – Sewage Backup Report**

E-mail completed form with pictures to: [utilities@baltimorecountymd.gov](mailto:utilities@baltimorecountymd.gov)

DATE \_\_\_\_\_ RESPONSIBLE PARTY \_\_\_\_\_

AREA \_\_\_\_\_ SEWER LINE SEGMENT(S) ID \_\_\_\_\_ ☐ M/L ☐ Lateral County

OWNER/RESIDENT \_\_\_\_\_ PHONE #1 \_\_\_\_\_

ADDRESS \_\_\_\_\_ ZIP \_\_\_\_\_ PHONE #2 \_\_\_\_\_

CLAIM INFORMATION PROVIDED? \_\_\_\_\_

DESCRIBE DAMAGE TO BASEMENT (PICTURES REQUIRED) \_\_\_\_\_

**CAUSE (Check all that apply):** ☐ Cleaning ☐ Debris ☐ Defective Pipe ☐ Offset Joints ☐ Lining Operation (Contractor)

☐ Unknown ☐ Other \_\_\_\_\_ ☐ Vandalism \_\_\_\_\_

BASEMENT CLEANED BY: ☐ Baltimore County ☐ Property Owner ☐ OTHER \_\_\_\_\_  
NAME (if known)

WORK DONE: ☐ PUMPED ☐ WET-VAC ☐ MOP ☐ DISINFECT ☐ OTHER \_\_\_\_\_

LOCATION OF SEWAGE DISPOSAL: ☐ Trash ☐ Sanitary Sewer System ☐ Unknown

TIME STARTED BASEMENT \_\_\_\_\_ FINISHED BASEMENT \_\_\_\_\_

OTHER PROPERTIES/ADDRESSES AFFECTED \_\_\_\_\_

REMARKS: \_\_\_\_\_

**GALLON CALCULATION:** LENGTH \_\_\_\_\_ (FT) X WIDTH \_\_\_\_\_ (FT) X DEPTH \_\_\_\_\_  
 (NOTE: 1" = .083) X 7.48 = \_\_\_\_\_ # GALLONS

REPORT PREPARED BY:

PRINT NAME \_\_\_\_\_ SIGNATURE \_\_\_\_\_

**SEWAGE OVERFLOW REPORT**  
BALTIMORE COUNTY BUREAU OF UTILITIES

<b>OVERFLOW Location – FULL address</b>		
<b>Manhole(s) # or Segment(s):</b>		
<b>Zip Code:</b>		
<b>Estimated Overflow of Gallons:</b>		<b>SSA:</b>
<b>Name and Type of Facility:</b> MH / Pipe / Force Main / PS / WWTP		
<b>Cause of Overflow:</b>		
<b>Date Overflow Occurred:</b>	<b>Time Started:</b>	<b>Time Stopped:</b>
<b>Ongoing or Repaired:</b>	<b>Duration:</b>	
<b>Correction:</b>		
<b>Type of Clean up or Mitigation:</b>		
<b>Additional Comments:</b>		
<b>Contractor's Contact Name:</b>		
<b>Contractor's Contact Number:</b>		
<b>Contractor's Signature:</b>		<b>Date:</b>
<b>Inspector's Name:</b>		
<b>Inspector's Contact Number:</b>		
<b>Inspector's Signature:</b>		<b>Date:</b>

## SECTION 2742

### TELEVISION INSPECTION

#### 2742.01 DESCRIPTION

**2742.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2742.01.02 Description of Work.** The work covered by this section consists of providing all labor, equipment, material and supplies and performing all operations required to conduct the internal closed-circuit television inspection of designated sewer lines, manholes, and/or laterals.

#### 2742.01.03 Submittals.

- (a) Copies of video for each pipeline section inspected, **including video and database**. Videos shall be uploaded to Baltimore County's FTP site and submitted to Engineer via approved digital method..
- (b) Sample of television survey log, CCTV inspection, and equipment list for approval before commencement of work, if requested.
- (c) TV Inspection Log: Each TV Inspection Log shall include all pertinent information for the respective inspection section and shall be submitted to the County, accompanied by the respective inspection video.
- (d) PACP Operator Certification: Prior to initiating CCTV Inspection work associated with condition assessment assignments, the Contractor shall present the County with copies of PACP certifications of operators that will be performing the work.

#### 2742.01.04 Definitions.

- (a) Pre-Installation TV Inspection. Pre-installation TV is a video inspection by the Contractor of sewer lines specified for rehabilitation to confirm cleaning, location of service connections, and constructability of line rehabilitation according to the Specifications.
- (b) Post-Installation TV Inspection. Post-installation TV is a video inspection to determine that rehabilitation and/or replacement of a sanitary sewer main(s), manhole(s), and/or laterals including service connections, as required, has been completed.
- (c) Final Acceptance TV Inspection. Final Acceptance TV is a complete PACP video inspection to determine that all work on a segment of pipe, including rehabilitation and/or replacement of a sanitary sewer main(s), manhole(s), and/or laterals including service connections, as required, has been completed according to the Specifications.

- (d) TV Inspection Log. Information collected and recorded by each TV operator for any TV inspection effort that is submitted to the County. All TV inspection logs shall be submitted in electronic and hard copy format.
- (e) PACP: Pipeline Assessment and Certification Program. A CCTV inspection standardization certification and observation coding system sponsored by the National Association of Sewer Service Companies (NASSCO).
- (f) MACP: Manhole Assessment and Certification Program. A voluntary manhole inspection standardization certification and observation coding system sponsored by NASSCO.
- (g) LACP: Lateral Assessment and Certification Program. A voluntary standardization certification and coding system for defects in laterals, sponsored by NASSCO.

## **2742.02 MATERIALS**

**2742.02.01 Closed Circuit Television Equipment.** Select and use closed-circuit television equipment that will produce a color video.

**2742.02.02 Pipe Inspection Camera.** Produce a video using a pan-and-tilt, radial viewing, pipe inspection camera that pans  $\pm 275$  degrees and rotates 360 degrees. The television camera used for the inspection shall be specifically designed and constructed for such inspection. The camera shall be operative in 100% humidity conditions and shall have either automatic or remote focus and iris control. The camera shall be able to inspect laterals as small as 4-inches, up to 70 feet from the sewer mainline. Use a camera with an accurate footage counter which displays on the monitor the exact distance of the camera (to the nearest tenth of a foot) from the centerline of the starting manhole. Use a camera with camera height adjustment so that the camera lens is always centered at one-half the inside diameter, or higher, in the pipe being televised. Additional lighting may be required to allow a clear picture of the entire periphery of the pipe. A reflector extending at least 10 feet in front of the camera may be required to enhance lighting in dark or large diameter pipes, including black High Density Polyethylene (HDPE) pipe. Operator narration shall follow NASSCO Standards. Vehicles capable of transporting TV equipment and accessing remote easements shall also be provided. The video camera shall be capable of showing the Owner name, Contractor name, date, line size and material, line identification (Owner's manhole numbers at both ends) and ongoing footage counter. The camera, television monitor, and other components of the video system shall be capable of producing picture quality to the satisfaction of the County (minimum 470H-line resolution color video picture); and if unsatisfactory, equipment shall be removed and replaced with adequate equipment. No payment will be made for an unsatisfactory inspection.

## **2742.02.03 Data Media.**

- (a) **The television inspection software shall be PACP version 7.0 or later, as accepted by the County. The data shall be exported as a PACP**

**export, including database and media files. Videos will be MPEG4 format.** All television inspections shall be uploaded to Baltimore County's ftp site. The submittal shall include the inspection video in mpeg4 format, inspection logs in pdf format, PACP database in version 7.0 or later and observation photos in jpeg format. The submittal shall be equipped with an appropriate software viewer, to be supplied by the Contractor at no additional cost to the County. All programming to accomplish the download shall be borne by the Contractor. Use observation terminology during audio narration consistent with PACP, MACP, and LACP. The video and inspection logs shall be submitted to the County within 10 working days of the inspection. All submittals will become the property of the County.

- (b) So that the County can import data from different contractors, the following steps must be completed:
  - 1) Complete a NASSCO compliant PACP/MACP/LACP inspection utilizing NASSCO certified software.
  - 2) Import the completed inspection database into the NASSCO exchange server. This is a free service provided by NASSCO (410-442-7473). The purpose of the exchange server is to ensure that the completed inspection is PACP/MACP/LACP compliant and to convert the inspection database from a particular vendor's format to a format that can be read by all vendors.
  - 3) Submit the database exported from the exchange server to Baltimore County.
- (c) Filenames. The filenames for the CCTV inspections shall be provided in the following format: Upstream Manhole ID\_Downstream Manhole ID\_Date. The Date shall be provided in the following format: month day year (mmddyyyy).

## **2742.03 CONSTRUCTION REQUIREMENTS**

**2742.03.01 Service Locations.** All service locations shall be measured for location prior to liner installation. All service connection measurements and the clockwise position of the openings shall be recorded in a log to aid in the reinstatement of service connections after lining. The approximate locations of identified active service taps are shown on the Contract Drawings; however, the Contractor shall determine the exact location and number of service connections by the dye test method or other methods approved by the County. The Contractor shall accurately field locate existing service connections, whether in service or not. For rehabilitated lines, the Contractor shall use existing service locations to reconnect service lines to new liner, unless otherwise specified on the Contract Drawings or directed by the County. During the line preparation and work operation, inactive sewer house connections shall not be cut but shall be left lined over, unless otherwise directed by the County.

### **2742.03.02 Pre-Installation Inspection.**

- (a) **Procedure.**

- (1) Where point repairs are identified, the Contractor shall televise the entire sewer line (from manhole to manhole) prior to the point repair work. This inspection shall be used to confirm the location, length, and nature of the defects to be repaired, and to confirm that the point repair is appropriate for the defects observed.
- (2) Perform pre-installation TV inspection immediately after all point repairs and line and/or lateral cleaning and immediately before line and/or lateral rehabilitation work. Pre-installation TV is not required for sewer lines designated as remove and replace from manhole to manhole. Verify that the line and/or lateral is clean and ready to accept the line and/or lateral rehabilitation. Prepare Television Inspection Logs. Maintain copies of CCTV inspections and reports for reference by the County for the duration of the project.
- (3) Prior to any repair work, the entire sewer line (from manhole to manhole) shall be televised. The pre-installation TV inspection shall be used to determine whether the line and/or laterals has been cleaned sufficiently; to confirm the location and nature of defects; and to confirm that the proposed method of repair is proper for the defects observed.
- (4) The camera shall be moved through the line in either direction at a moderate rate, stopping when necessary to permit proper documentation of the sewer's condition. In no case shall the television camera be pulled at a speed greater than 30 feet per minute. Maintain technical quality, sharp focus, and a distortion free picture. Manual winches, power winches, TV cable, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer conditions shall be used to move the camera through the sewer line.
- (5) The camera shall be placed at the center of manhole and video shall commence before entering the pipe. Show the inside of manhole walls, manhole channel, and pipe connection to wall at both upstream and downstream manhole and lateral connections. For mainlines, the camera shall be mounted on a transport platform that will keep it centered along the longitudinal axis of sewer mainline and above water. Footage for laterals shall commence before entering laterals at connection.
- (6) Use a hydraulic jet nozzle if necessary to remove standing water from the line. Eliminate steam in the line for the duration of the inspection.
- (7) Lateral inspections may be conducted from the main line or an upstream lateral access point, such as a cleanout.

- (8) If, during the inspection operation, the television camera will not pass through the entire pipe section due to blockage or pipe defect, the Contractor shall set up his equipment so that the inspection can be performed from the opposite manhole or access point, at no additional cost to the County. If, again, the camera fails to pass through the entire pipe section, the inspection shall be considered complete and no additional inspection will be required at that time. If a protruding tap impedes a main line inspection, trim protruding tap to ½ inch or less. Improper cleaning will not be a reason for incomplete televising of a line section. If the line is determined impassable, the Contractor shall contact the County to identify subsequent actions.
- (9) During the internal inspection the television camera shall be temporarily stopped at each defect along the line. The Contractor shall record the nature and location of the defect. Where defects are also active infiltration sources, the rate of infiltration in gallons per minute (gpm) shall be estimated by the Contractor and recorded. The camera shall also be stopped at active service connections where flow is discharging. Flows from service connections which are determined to be infiltration shall also be recorded. The camera shall be stopped at all service connections and identified by footage and clock orientation. All service connections shall be “panned” 360 degrees so that the complete connection to the mainline pipe can be viewed.
- (10) Camera operator shall slowly pan and tilt at beginning and ending manholes and/or access points, each service connection, joints, visible defects and when pipe material transitions from one material to another.
- (11) TV inspection videos shall be continuous for pipe segments between manholes. Any inspection videos received with gaps in the pipe segments or footages will be considered incomplete and will be rejected. Do not leave gaps in the inspection of a segment between manholes and do not show a single segment on more than one inspection video, unless specifically allowed by the County.
- (12) Inspections displaying poor video quality (including but not limited to: grease or debris on lens, camera under water, image too dark, washed out, distorted or out of focus, lines improperly cleaned or poor/no audio) shall be re-televised and resubmitted at no cost to the County.

**(b) Flow Control.**

- (1) Perform flow control as specified in Section 2740, Flow Control, of these Contract Documents.



- (2) Pre- and Post-Installation and Final Acceptance Inspections: Perform survey TV inspection on one pipeline section or lateral at a time. Adequately control the flow in the section being televised. Do not allow the depth of wastewater flow to exceed 20% of the pipe diameter.
- (3) If during survey TV inspection of a pipeline section, the wastewater flow depth exceeds that specified previously, reduce the flow depth by performing the survey TV inspection during minimum flow hours, by diversion pumping, plugging and/or by pulling a camera with swab, high-velocity jet nozzle or other acceptable dewatering device. A video made while floating the camera is not acceptable unless approved by the County.

**(c) Documentation of Television Inspection.**

- (1) The Television Inspection shall be documented using a computerized datalogger and reporting system that is NASSCO certified and also PACP, MACP, or LACP certified, respective of the structure being televised.
- (2) Television Inspection Logs: CCTV Inspection logs shall be kept by the Contractor and shall clearly show the location and orientation in relation to an adjacent manhole of each infiltration point observed during inspection. In addition, other points of significance such as locations, orientations, and activity of service connections, building sewers, unusual conditions, roots, storm sewer cross connections, broken pipe, presence of scale and corrosion, and other discernible features shall be recorded and a copy of such records shall be supplied to the County. Logs shall be prepared for the pre- and post-installation and final acceptance TV inspections. This includes any inspections conducted to address repairs made to the new or rehabilitated pipeline section(s).
- (3) Video Recordings: The purpose of video recording shall be to supply a visual and audio record of problem areas of the lines that may be replayed. Video recordings shall include an audio track recorded by the inspection technician during the actual inspection work describing the parameters of the line being inspected (i.e. location, depth, diameter, pipe material), as well as describing connections, defects and unusual conditions observed during the inspection. Video recording playback shall be at the same speed that it was recorded. Slow motion or stop-motion playback features may be supplied at the option of the Contractor. Once recorded, the submittal becomes the property of the County. The Contractor shall have all media and necessary playback equipment readily accessible for review by the County during the project.

### 2742.03.03 Post-Installation TV Inspection.

#### (a) Procedure.

- (1) Post-Installation TV inspection shall be completed and submitted when lining work is complete on a section of line. The Post-Installation TV inspection videos shall be submitted to the County within ten (10) working days of the inspection. If defects are observed during the Post-Installation inspection, the Contractor shall make the repairs as specified herein.
- (2) Follow procedures as specified for pre-installation TV inspection, except as specified below.
- (3) The Post-Installation TV inspection shall be completed by the Contractor in the presence of the County. The Post-Installation TV inspection shall be completed to confirm completion of rehabilitation and replacement work and any repairs, review the location and nature of any defects, and to verify that the rehabilitation work is free of defects and conforms to the requirements of these Specifications. Provide a color CCTV inspection video showing the completed work, including the condition of restored service connections and replaced laterals as specified on the contract drawings and/or required by the County. Prepare and submit Television Inspection Logs providing location of service connections along with location of any discrepancies.
- (4) For Post-Installation TV inspection, exercise the full capabilities of the camera equipment to document the completion of the rehabilitation and replacement work and the conformance of the work to the Specifications. Provide a full 360 degree view of pipe, manhole, joints, service connections, and laterals.
- (5) Digital Photographs: Noted post-rehabilitation defects and lateral connections shall be documented as digital files. Photo logs shall accompany each photo submitted.
- (6) Flow Control and Documentation of Television Inspection shall be conducted as specified in paragraph 2742.03.01 of this specification.

### 2742.03.04 Final Acceptance TV Inspection.

#### (a) Procedure.

- (1) **Final Acceptance TV inspection shall not be completed until all work, including lateral replacement or rehabilitation, is complete on a section of line.** The Final Acceptance TV inspection shall be submitted to the County within ten (10) working days of the inspection via the County's FTP site. If defects are observed during the Final Acceptance inspection, the

Contractor shall make the repairs as specified herein. Final Completion will not be given until all defects are repaired, television inspected, and approved by the County.

- (2) Follow procedures as specified for pre-installation TV inspection, except as specified below.
- (3) The Final Acceptance TV inspection shall be completed by the Contractor in the presence of the County. The Final Acceptance TV inspection shall be completed to confirm completion of rehabilitation and replacement work and any repairs, review the location and nature of any defects, and to verify that the rehabilitation work is free of defects and conforms to the requirements of these Specifications. Provide a color video inspection showing the completed work, including the condition of manholes, restored service connections, service connection sealing and/or rehabilitation, lateral rehabilitation, and replaced laterals as specified on the contract drawings and/or required by the County. Prepare and submit Television Inspection Logs providing location of service connections along with location of any discrepancies. All manhole work, including benches, inverts and pipe penetrations into manhole, shall be complete prior to Final Acceptance TV work.
- (4) Length of Final Acceptance TV Inspections: If the entire pipe is being lined, regardless of whether there is other work being performed, the TV inspection shall be the entire length of pipe. If only a point repair is being performed or a segmental liner is being installed, the TV inspection shall be from the closest manhole to just beyond the end of the repair or segmental liner, with the realization that reverse set-up may be needed. If the only work is being performed on the laterals and the pipe is already CIPP lined, the TV inspection shall be the entire length of pipe. If the only work is being performed on the laterals and the pipe is not lined, the TV inspection shall be to the farthest lateral on which work is being performed.
- (5) For Final Acceptance TV inspection, exercise the full capabilities of the camera equipment to document the completion of the rehabilitation and replacement work and the conformance of the work to the Specifications. Provide a full 360 degree view of pipe, manhole, joints, service connections, and laterals.
- (6) Digital Photographs: Noted post-rehabilitation defects and lateral connections shall be documented as digital files. Photo logs shall accompany each photo submitted.
- (7) Flow Control and Documentation of Television Inspection shall be conducted as specified in paragraph 2742.03.01 of this specification.

- (8) Final Acceptance Television inspection results will be accepted by the County when the inspection video in mpeg4 format, inspection logs in pdf format, PACP database in version 7.0 or later and observation photos in jpeg format meet the requirements of this and related specification sections and upon review and approval by the County.

## 2742.04 MEASUREMENT AND PAYMENT

### 2742.04.01 **Pre- or Post-Installation Television Inspection for Pipes, Manholes, and/or Laterals to be Rehabilitated.** This item will not be measured.

- (a) **Basis of Payment.** Payment for television inspection for the purpose of pre- or post-lining operations, will be included in the prices bid for items in the proposal and as defined in these Specifications. Any or all payment may be withheld until the final inspections showing all completed work described have been completed and submitted.

### 2742.04.02 **Television Inspection, Without Main/ Lateral Rehabilitation.** The quantity of sewer lines televised will be measured in linear feet, of each size range, from center line of manhole to centerline of manhole for main lines, and service connection to the point of termination for laterals, horizontally along the center line of the televised pipes. Payment will only be made for accepted CCTV inspection footage.

- (a) **Basis of Payment.** The payment for sewer inspection televising shall be based on the linear feet of pipeline televised as measured in the field at grade, for the size ranges given. The unit price per linear foot will be full compensation for providing for all labor, traffic control, confined space entry and equipment, flow control, materials, equipment, tools and incidentals for inspection televising of sewer of pipe size 4 to 18 inches. Payment will not be made for the following: poor or unacceptable quality videos, re-televising any segment without prior approval of the County, portions of the sewer not televised, linear feet of sewer through which the camera could not pass, and reverse setups required to bracket an obstruction. Payment for television inspection will be considered incidental if completed in coordination with manhole and pipeline rehabilitation, or joint and service connection testing and sealing.

### 2742.04.03 **Final Acceptance Television Inspection for Pipes, Manholes, and/or Laterals to be Rehabilitated.** The quantity of sewer lines televised will be measured in linear feet, of each size range, from center line of manhole to centerline of manhole for main lines, horizontally along the center line of the televised pipes, except as otherwise defined in Section 2742.03.04 (a) (4). Payment will be at a fixed price per linear foot set by the County. Payment will only be made for CCTV inspection footage reviewed and approved by the County.

- (a) **Basis of Payment.** The payment for sewer inspection televising shall be based on the linear feet of pipeline televised as measured in the field at grade, for the size ranges given. See 2742.03.04 (a) (4) for the required and payable length for Final Acceptance Television Inspections. The unit

price per linear foot will be full compensation for providing for all labor, traffic control, confined space entry and equipment, flow control, materials, equipment, tools and incidentals for inspection televising of sewer of pipe size 6 to 30 inches. Payment will not be made for the following: poor or unacceptable quality inspections, re-televising any segment without prior approval of the County, portions of the sewer not televised, linear feet of sewer through which the camera could not pass, and reverse setups required to bracket an obstruction. Payment will only be made once for each main-line section on which any rehabilitation, replacement, and/or repair work is performed. Payment of this item for a section indicates acceptance by the County of lining and lateral work on that section.

END OF SECTION

## SECTION 2743

### CURED-IN-PLACE PIPE (CIPP) SPOT REPAIR

#### 2743.01 DESCRIPTION

**2743.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2743.01.02 Description of Work.** These specifications include requirements for all design, materials, transportation, equipment and labor necessary to repair defective rehabilitated sections of sewer, either listed in the Contract Documents or required as a result of work completed under this contract. This specification is intended to identify the minimum requirements of the County. It is the intent of this Section to provide general guidelines for the in-situ (in-place) reconstruction of short lengths of sewers by the installation of a resin- impregnated fiberglass tube which is wrapped around a carrier packer and then inflated and cured at a defect in the pipeline to form a hard, tight-fitting, air and water tight, impermeable, corrosion resistant pipe-within-a-pipe type repair. Curing shall be accomplished by either ambient curing or by steam. When cured, the Cured-In-Place Pipe (CIPP) spot repair will be formed to the size and shape of the original pipe. These repairs may or may not be specifically indicated on the Contract Drawings, but this Section is provided as reference should this repair method be required.

**2743.01.03** For any ASTM standard referenced, the Contractor shall use the most current active version.

**2743.01.04 Safety.** The Contractor shall follow the safety guidelines as described in Section 2731, Pipe Rehabilitation – General Requirements.

**2743.01.05 Product Experience.** The product proposed for the pipe rehabilitation of sewers must have been in use for at least three years in this country for pipeline diameters 18-inch and below.

**2743.01.06 Contractor Experience.** The prospective Contractor must be approved, in writing, by the County prior to the award of contract. The Contractor shall provide any information or documentation, which the County may require as proof of the Contractor's competency to perform work of the type herein specified. The Contractor shall have a minimum of three (3) years of experience installing CIPP spot repairs of a similar size, length and configuration as the sewers contained in this project. Each of the lead personnel including the superintendent, the foreman and the lead crew personnel for the inspection, resin wet-out and spot repair installation must have a minimum of three (3) years of total experience with the CIPP technology proposed for this Contract and must have demonstrated competency and experience to perform the scope of work contained in this Contract.

**2743.01.07 Submittals.** The Contractor shall submit the information listed below for review and approval. This shall be in addition to the information required pursuant to

Sections 2731 and 2732. The notice to proceed will not be issued for this item of work until all of the listed information has been reviewed and approved by the County.

- (a) Detailed description of lubricant proposed for the installation process. Lubricant shall be compatible with the County's and/or City's wastewater treatment plant operations and pretreatment program.
- (b) Certification of resin volume and required 5 to 10 percent addition.
- (c) Certification from resin manufacturer regarding approval of resin dye quantity and type.
- (d) Information on the maximum allowable tensile stress for the tube, from the felt manufacturer.
- (e) Product Experience documentation (2743.01.05).
- (f) Contractor Experience documentation (2743.01.06).
- (g) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the rehabilitative product manufacturer(s), manufacturer's representative or vendor as well as the Cured-In-Place Pipe (CIPP) in-situ spot repair installer certifying that the product(s) they are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.

**PRODUCT WARRANTY AND CERTIFICATION FORM**

REFERENCE: \_\_\_\_\_

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE REHABILITATION PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

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

By: \_\_\_\_\_ (SEAL)  
(Typed Name and Title)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

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

By: \_\_\_\_\_ (SEAL)  
(Typed Name and Title)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

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

By: \_\_\_\_\_ (SEAL)  
(Typed Name and Title)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)



- 2743.01.08 Flow Capacity.** Maintenance of existing flow capacity of existing sewers is essential. Repaired rehabilitated pipes shall have minimal or no change in capacity. In no case shall the flow capacity in the pipe be dramatically reduced as a result of the spot repair.
- 2743.01.09 Traffic Control.** The Contractor shall obtain all necessary traffic control permits and be responsible for controlling traffic during all installation operations. Final scheduling shall be coordinated with the County for the purpose of defining detours, closing and/or interruptions of traffic flow.
- 2743.01.010 Accuracy of the Documents.** To the greatest practical extent, the Contract Documents accurately depict the details of the project area, including the locations and numbers of the manholes. However, the Contractor shall determine the locations of all structures and verify all dimensions, including lengths between manholes and pipe sizes by measurement. The Contractor shall also be aware of variances in pipe diameters or circumferences. These minor variations are not specifically mentioned in these documents and such variations shall not be considered grounds for additional compensation or a change in condition claim.
- 2743.01.011 Bypass Pumping.** For acceptable installation of the spot repair, the Contractor shall provide adequate flow control including, but not limited to pumping or bypass pumping as specified in the Flow Control Section of these Specifications, Section 2740. The Contractor shall continuously monitor weather forecasts before and during the spot repair installation. Installations shall only proceed when the weather forecast is not anticipating wet-weather events.

## **2743.02 MATERIALS**

- 2743.02.01 Fiberglass Tube.** The fiberglass tube used for the spot repair should consist of two or more layers of 0/90° bias woven fiberglass with a Tervara felt coating on one side prescribed to the circumference and length of the repair being made. It shall be capable of carrying resin, withstanding installation pressures and curing temperatures. The fiberglass tube should be compatible with the resin system used. The fiberglass tube will stretch during installation to form a tight fit to the internal circumference of the existing pipe.
- 2743.02.02 Resin.** A two-component, silicate based, ambient cure, low viscosity and corrosion resistant resin that is compatible with the installation process should be used. The CIPP spot repair can be expected to have the following minimum structural properties:

<u>Property</u>	<u>Test Method</u>	<u>Minimum Value</u>
Flexural Strength	D790	10,000 psi
Flexural Modulus	D790	750,000 psi

- 2743.02.03 Design.** The CIPP spot repair shall be designed as per ASTM F1216.

- (a) The existing pipe to be repaired should be considered fully deteriorated and the spot repair shall not rely on any support from the host or rehabilitated pipe.

**2743.02.04 Length.** The minimum length shall be determined to effectively span the designated defective section, plus one foot at either end. The lengths shall be verified in the field before pulling the tube into the pipe.

**2743.03 CONSTRUCTION REQUIREMENTS**

**2743.03.01 Cleaning.** Cleaning of the sewer system shall be performed as specified in Section 2741 – Sewer Line, Lateral, and Manhole Cleaning.

**2743.03.02 TV Inspection.** Inspection of the sewer system shall be performed as specified in Section 2742 - Television Inspection.

**2743.03.03 Preparation and Installation.**

- (a) The surface to receive the spot repair shall be prepared in accordance with the manufacturer's requirements.
- (b) Inspect defect in pipe using TV inspection and record detail. Estimate the dimensions of the defect and length of the repair required.
- (c) Clean pipe by whatever method is deemed suitable for the type of deposits/debris encountered and condition of the pipe. Cleaning of the sewer pipe shall be carried out immediately before TV inspection.
- (d) TV inspection of the sewer pipe shall be carried out immediately before insertion of the tube to ensure that the sewer is clean and that the pipe conditions have not changed.
- (e) All infiltration shall be controlled as necessary prior to installation.
- (f) The fiberglass tube shall be thoroughly wet-out with the two-component resin in accordance with the manufacturer's recommendations.
- (g) All wet-out procedures shall be carried out under cover and the repair section shall not be exposed to the elements until installation.
- (h) The impregnated fiberglass tube shall be wrapped around the carrier packer and secured in place using ties supplied by the manufacturer.
- (i) The ends of all spot repairs shall be straight and neatly finished. Frayed, torn, jagged, or otherwise rough ends shall not be allowed.
- (j) The carrier packer shall be winched to the damaged area and positioned by closed circuit TV (CCTV) camera guiding the installation. The carrier packer shall be inflated not to exceed the pressures recommended by the manufacturer, and held in place until the spot repair cures.
- (k) Fully reinstate all house connections.

- (l) Refer to Section 2731 Pipe Rehabilitation – General Requirements for additional information.

**2743.03.04 Installation and Final Acceptance Inspections.**

- (a) The finished installation shall be internally inspected by CCTV, in accordance with Section 2742, Television Inspection. Variations from true line and grade may be inherent because of the conditions of the original piping, but should not adversely affect the flow characteristics of the sewer where the repair is made.
- (b) The finished CIPP spot repair should be continuous over the length of the repair area plus one foot extending into structurally sound pipe on both sides of the repair. The spot repair shall be free from waviness, visual defects, damage, deflection, holes, delamination, uncured resin, and the like. There shall be no visible infiltration through the spot repair or from behind the spot repair.
- (c) Contractor shall take video showing the installation process for the CIPP spot repairs and submit this video to the County prior to payment for the repairs.
- (d) Final acceptance of this work is contingent on the receipt, review, and approval of the Final Acceptance TV Inspection described in Section 2742.

**2743.03.05 Cleanup.** Upon acceptance of the installation work and testing, the Contractor shall clean the project area affected by the operations.

**2743.03.06 Warranty.** During the two year warranty period, any defects which affect the integrity or strength of the pipe shall be repaired at the Contractor's expense. Prior to the repair of the defective work, the Contractor shall submit a shop drawing indicating the method of repair for the County's approval. The Contractor shall obtain approval from the County for method of repair, which may require field or workshop demonstration.

**2743.04 MEASUREMENT AND PAYMENT**

**2743.04.01 CIPP Spot Repair.** CIPP spot repairs will be measured per linear foot of CIPP spot repair installed and accepted in place.

- (a) **Basis of Payment:** Payment will be per linear foot CIPP spot repair installed complete and accepted in place by the County. The unit price includes all labor, incidentals, materials, flow control, preconstruction video taping, confined space entry and equipment, sediment removal, debris collection and disposal, re-establishing lateral service connections, traffic control, erosion and sediment control, pre- and post-cleaning, pre

and post- CCTV inspection, warranty inspections, sealing at manholes and service connections, site cleanup, and all other work, not included under other items, necessary to complete the spot repair as specified.

- (b) If this type of repair is not indicated on the Contract Documents but is needed at time of construction, the Contractor shall notify the County immediately, and provide the necessary documentation for the County to determine if the repair is required. The costs associated with completing the repair shall be per the contingent item identified in the Contract.
- (c) If a CIPP spot repair is required as a result of defective work by the Contractor or his subcontractors, this item will not be measured and will be included in the prices bid for items in the proposal.

END OF SECTION

## SECTION 2744

### POINT REPAIRS (EXCAVATE AND REPAIR)

#### 2744.01 DESCRIPTION

**2744.01.01 Reference.** All applicable requirements of other portions of the Contract Documents apply to the Work of this Section.

**2744.01.02 Description of Work.** The work covered by this section consists of providing all labor, equipment, material and supplies and performing all operations required to perform the designated point repairs, including the replacement of outside drop connections. This includes supplying all labor, materials, equipment, and apparatus not specifically mentioned herewith or noted on the plans but which are incidental and necessary to complete the work specified.

**2744.01.03** This Section shall supplement and amend the Baltimore County Department of Public Works Standard Specifications and Maryland State Highway Administration Standards.

**2744.01.04** Point repairs (excavate to make repair) are considered sewer pipe repairs required to repair defective sections of existing sewers when “insitu or in-place” pipe rehabilitation methods cannot successfully repair a defect. Excavation from the surface is required to accomplish the necessary repairs. Generally, the work will require repair of existing pipe sags, offset joints, protruding laterals which cannot be removed internally, removal and replacement of short sections of damaged pipe, sewer house connections and/or any other defects deemed necessary by the County after defects are identified through review of the initial closed-circuit televised (CCTV) inspection.

**2744.01.05 Sequencing:** Lateral repairs, including reconnection/replacement, identified in the contract documents shall be completed prior to rehabilitation of the main sewer line.

**2744.01.06** Flow control, if required to accomplish the repair, shall be performed as described in the Flow Control Section of these Specifications, Section 2740. The Contractor shall complete point repairs only after determining that it is absolutely necessary and has been approved by the County. The work shall include: verifying the location of the point repair, locating all interfering utilities, providing temporary flow bypassing or control, installing suitable access to the site, permitting, excavating, shoring, dewatering, completing the required pipe repairs or section replacement, backfilling, and surface restoring.

**2744.01.07** All point repairs discovered through subsequent investigations, and/or directed by the County, shall be completed prior to rehabilitating the pipe by grouting or cured-in-place pipe (CIPP) lining or other method of repair. The defects shall be recorded on DVD and submitted for prior approval by Baltimore County Engineering. Once approved, the exact location of the point repairs will be determined by the Contractor and approved by the County after the pipe is exposed. All work to expose and correct the defects, and the materials and methods used, shall conform

to Baltimore County Standards. All point repairs shall be visually inspected and shall be measured by the County prior to backfilling.

**2744.01.08** The Contractor shall excavate and repair all sections of pipe which are obstructed (after mechanical or jet hose cleaning has been attempted) which prevent the insertion of a liner, as directed or approved by the County. Pipe material for point repairs shall be compatible or adaptable to the existing sewer and meet County Standard Specifications. The County will not accept responsibility, nor incur additional costs for point repairs required as a result of the liner set-up or installation. All repairs shall be as detailed and specified within the contract documents and drawings.

**2744.01.09** Pavement patches in County roads shall be as per the County Standard Specifications. Pavement patches in SHA roads shall be as per the Maryland State Highway Administration Standards. Final bituminous overlay shall be done by a prequalified contractor with an A2 classification (at time of bid) as approved by the Baltimore County Bureau of Engineering and Construction; temporary paving does not apply.

**2744.01.010** Point Repairs Identified on the Contract Documents: Point repairs identified prior to rehabilitation and addressed in the Contract Documents will include, to the best extent possible, pertinent information such as main line diameter, approximate depth at manholes, description of line location, the number of points to be repaired, and the location of each point. The depths shown do not necessarily reflect the excavation depth required to make the repair, but are for reference only.

**2744.01.10** **Site Conditions.** The Contractor shall conduct operations and shall schedule cleanup in a manner which causes the least possible inconvenience to traffic, pedestrians, and adjacent property owners or tenants.

**2744.01.11** **Submittals.** The Contractor shall submit the information listed below

- (a) Detailed plan, including the location, method, and linear footage of point repairs
- (b) Pipe material and fittings
- (c) Bedding and backfill material
- (d) The Contractor shall submit a plan for bypassing or controlling sewage flows around the work area and facilities where sewage flows must be interrupted to complete the work. The plan shall be reviewed by the County and shall be acknowledged as acceptable before any work is started. Bypass Pumping shall be performed in accordance with Section 2740- Flow Control.

## **2744.02 MATERIALS**

**2744.02.01** Pipe materials used for completing point repairs shall be of the same internal dimensions as the pipe section being repaired and shall be acceptable to the installation conditions.

**2744.02.02** Repairs shall provide a watertight seal between the existing pipe sections and point repair pipe.

**2744.03 CONSTRUCTION REQUIREMENTS**

**2744.03.01 Test Pits.** Test pits should be utilized as determined by the Contractor when point repairs (excavate and repair) are required to locate pipes to be repaired or existing utilities that may be within the influence of the Contractor's construction activities.

**2744.03.02 Notification.** The Contractor shall notify the County not less than 48 hours in advance of the time he plans to begin point repair work at a particular location within the project area.

- (a) After the point repair is located and exposed, the County shall inspect the damaged pipe and shall confirm the required repair and methods proposed by the Contractor. Prior to performing the work, the sewer shall be inspected to verify the location of the repair, the requirements of the repair, and the necessity of the repair.

**2744.03.03 Repair Method.** The following method will be used to complete the required repair.

- (a) Remove and Replace Pipe and Fittings: Excavate and remove defective pipe or fittings to the nearest pipe joint, or saw cut a straight line in a pipe section which is perpendicular to the pipe axis to leave a plain end. Prepare a replacement section of replacement pipe with the same internal dimensions as the pipe to be replaced, or as otherwise approved by the County. Make connections using standard joints or couplings. All connections shall be watertight.

**2744.03.04 Steel Plating.** Any excavation that will be required to convey traffic, or will remain open when the Contractor's forces are not present, shall have steel road-crossing plates installed over the excavation. Plating shall be of suitable size and thickness to accommodate the excavation and installation requirements.

**2744.03.05 Backfill.** Backfill, including pipe bedding, shall be placed and compacted as specified in the Baltimore County Department of Public Works Standard Specifications. Flow shall be returned into the repaired section prior to placement of backfill.

- (a) The Contractor shall correct any settlement of backfill which may occur within the warranty period at no cost to the County.  
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**2744.04 MEASUREMENT AND PAYMENT**

**2744.04.01 Point Repairs.** Measurement for payment will be the actual linear footage measured horizontally along the centerline of the trench for the length of the repair of each pipe size, including fittings.

- (a) **Basis of Payment.** Payment shall be made per linear foot completed. Pricing shall include, but shall not be limited to, the following: all labor and materials, permits, resident notification and access requirements needed, flow control, removal and disposal of existing sewer pipe and unsuitable material, furnishing and placing all pipe, fittings, house connections, and joining materials, unclassified excavation and refill removal, Class 3 Excavation, storage and re-handling of excavated materials, bracing, pipe to manhole connector, No. 6 aggregate bedding, sediment and erosion control, flow control, excavation and shoring, excavation steel plating, traffic control, concrete encasement as necessary, dewatering, all pre- and post-installation CCTV inspection, debris collection and disposal, installation of repair and connection materials, fittings, testing, initial and general backfill and compaction, borrow for backfilling as necessary, pavement removal and disposal, roadway repair and site restoration, and all items necessary to successfully complete the point repairs as specified herein or as required to complete the work.
- (b) If this type of repair is not indicated on the Contract Documents but is needed at the time of construction, the Contractor shall notify the County immediately and shall provide the necessary documentation for the County to determine if the repair is required. The costs associated with completing the repair shall be per the contingent item identified in the Contract.
- (c) If a point repair is required as a result of defective work by the Contractor or his subcontractors, this item will not be measured and will be included in the prices bid for items in the proposal.

**2744.04.02 Replace Outside Drop Connection.** Measurement for payment will be for each outside drop connection replaced, including fittings, based on the depth the drop connection extends below the existing ground surface.

- (a) **Basis of Payment.** Payment shall be made per each outside drop connection replaced. Pricing shall include, but shall not be limited to, the following: all labor and materials, permits, resident notification and access requirements needed, flow control, traffic control, removal and disposal of existing sewer drop connection and unsuitable material, furnishing and placing all pipe, fittings, house connections, and joining materials, unclassified excavation and refill removal, Class 3 Excavation, storage and re-handling of excavated materials, bracing, pipe to manhole connector, No. 6 aggregate bedding, sediment and erosion control, excavation and shoring, excavation steel plating, concrete encasement as necessary, dewatering, all pre- and post-installation CCTV inspection, debris collection and disposal, installation of repair and connection materials, fittings, testing, initial and general backfill and compaction, borrow for backfilling as necessary, pavement removal and disposal, site restoration, and all items necessary to successfully complete the point repairs as specified herein or as required to complete the work.
- (b) If this type of repair is not indicated on the Contract Documents but is needed at the time of construction, the Contractor shall notify the County



immediately and shall provide the necessary documentation for the County to determine if the repair is required. The costs associated with completing the repair shall be per the contingent item identified in the Contract.

END OF SECTION

## SECTION 2751

### SANITARY SEWER HOUSE CONNECTION REINSTATEMENT AND LATERAL REPLACEMENT

#### 2751.01 DESCRIPTION

**2751.01.01 Reference.** All applicable requirements of other portions of the Contract Documents, including Section 1007 of the Baltimore County Department of Public Works Standard Specification for Construction and Materials, apply to the Work of this Section.

**2751.01.02 Description of Work.** Work included in this Section consists of reconnection/reinstatement of service laterals or connections of new service laterals along a rehabilitated sanitary sewer main. Reinstated service connections and replacement service connections and laterals shall be watertight, constructed in accordance with the County's Standard Specifications and Details, and as specified herein. The Contractor shall perform all required permanent landscape restoration of disturbed areas on private property and within County, State, or City rights-of-way upon completion of the service reconnections, to the satisfaction of the County.

**2751.01.03 Sequencing.** Lateral repairs, including reconnection/replacement, identified in the contract documents shall be completed prior to rehabilitation of the main sewer line. Requirements of this section apply to connection or reconnection of laterals to sewer main lines which have been previously rehabilitated.

**2751.01.04 Submittals – After Notice of Award.** After the Notice of Award, the Contractor shall submit the information listed below for review and approval. The notice to proceed will not be issued until all of the listed information has been reviewed and approved by the County and/or the Engineer.

- (a) The Contractor shall submit the type of watertight service fitting (wye, saddle wye, inserta tee, etc.) to be installed for the re-establishment of service connections at replaced or new laterals. This information shall also include the type of cutting device used to re-establish the service connection. The County only accepts the shell cutting method for re-establishing service connections. Reciprocal saws shall not be used to re-establish service connections. The Contractor shall provide shop drawings and product data for the reconnection method.
- (b) The Contractor shall submit a schedule of anticipated duration of service interruptions, for approval by the County.
- (c) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the fitting manufacturer(s), manufacturer's representative or vendor as well as the (replacement) fitting installer certifying that the product(s) they

are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.

**PRODUCT WARRANTY AND CERTIFICATION FORM**

REFERENCE (PROJECT NAME AND CONTRACT NUMBER): \_\_\_\_\_

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

Address:

By: \_\_\_\_\_

(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_

(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_

(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

## **2751.02 MATERIALS.**

### **2751.02.01 Flexible Connectors between Manhole Structures and Pipes or Laterals.**

- (a) Pipe to manhole connection shall be sealed with a flexible boot, gasket, or sleeve.
  - (1) When the boot is used, the port shall be cored to the size, shape, surface finish, and location required and not cast in the manhole. Angular adjustments through 20 degrees shall be allowed. The flexible boot shall meet ASTM C923 specifications. The boot shall be secured to the port with an internal aluminum expanding band and to the pipe with a nonmagnetic corrosion resistant steel external band. Boot seal shall be "Kor-N-Seal" as manufactured by Trelleborg Pipe Seals Milford, Inc., or equal.
  - (2) When gasket is used, the gasket shall be a rubber pressed wedge gasket cast into the manhole as manufactured by Press-Seal Gasket Corporation, or equal.
  - (3) When sleeve is used, the sleeve shall be a flexible rubber sleeve cast into the manhole complete with stainless steel strap.
    - i. Pipe to sleeve sealant shall be grouting compound. Grouting compound shall be as manufactured by 3M Company or be an equivalent product having strength properties of 80 psi tensile and 700 percent elongation in accordance with ASTM D3574-81 test E, and linear dimension change shall not exceed 18 percent when subject to wet and dry cycles in accordance with ASTM D1042-51 (1978).
    - ii. Mechanical type pipe to wall sleeve seals shall be "Link-Seal" pipe to wall closures "S-316" model with Type 316 stainless steel bolts, or equal. Seals shall be modular mechanical type, consisting of interlocking synthetic rubber links shaped to fill annular space between pipe and wall opening and shall provide watertight seal between pipe and wall opening.

### **2751.02.02 Service Connection.**

- (a) Unless otherwise noted on Contract Drawings or directed by the County, the service connections shall be 6 inches in diameter.
- (b) Connection of service pipe to rehabilitated pipes shall be made with a watertight connection between the new rehabilitated pipe liner and the new service connection. A watertight connection between the existing "host" pipe and new service connection only is not acceptable.
  - (1) An inserta type tee or PVC saddle wye and gasket with mechanical strap connection shall be used for connection to lined pipes.

- (2) The inserta tee shall be sized to accept 6-inch service lines on sewer mains 10-inches and larger in diameter. The PVC saddle wye and gasket shall be sized to accept 6-inch service lines on sewer mains 8-inches and larger in diameter.

**2751.02.03 Inserta Tee.**

- (a) Use pipe inserta tees on rehabilitated sanitary sewer mains only.
- (b) The inserta tee is comprised of three parts; PVC hub, stainless steel band and rubber boot as manufactured by Fowler Manufacturing Co., Inc.
- (c) PVC hub and rubber boot shall be engineered to accept the wall thickness and internal radius of the pipe. The PVC hub and rubber boot shall not protrude more than ½ inch into the sewer pipe.
- (d) The PVC hub shall be in accordance with ASTM D3034.
- (e) The rubber boot shall be in accordance with ASTM C443.
- (f) All hardware shall be stainless steel in accordance with ASTM F593 and F594.
- (g) The inserta tee shall be sized to accept 6-inch service lines unless indicated otherwise by the Contract Drawings.

**2751.02.04 Pipe Saddle Wye (or Tee) and Gasket with Mechanical Strap**

- (a) Use the saddle wye (or tee) and gasket with mechanical strap on rehabilitated sanitary sewer mains only.
- (b) Use one-piece prefabricated saddle wye, either PVC or polyethylene, and neoprene gaskets only on rehabilitated sanitary sewer mains. Use ½ inch stainless steel bands for securing saddles to liner pipe. Bands shall be resistant to corrosion for a minimum service life of 50 years. Saddle wyes shall only be used when the existing connection is a wye. Saddle tees may be used when the existing connection is a tee.
- (c) Materials: All PVC fittings shall meet the requirements of ASTM specification D3034 for 6-inch through 8-inch SDR 35. All fittings shall be made from virgin PVC compound and/or the manufacturer's own clean reworked material to provide physical and mechanical properties that equal or exceed cell class 12454 as defined in ASTM D1784.
- (d) Fittings: All fittings shall be suitable for use as gravity sewer conduit. Provisions must be made for expansion and contraction at each joint with an elastomeric ring. The joint design shall meet the qualification requirements of ASTM D3212, under both 25 ft of head pressure and 22 in. Hg vacuum. Pipe installation and usage shall be in compliance with the JM Eagle™ Publication JME-05B, "Ring-Tite™ Gravity Sewer Installation Guide" or equal.

- (e) Drop Impact Test: Minimum impact strength shall be a minimum of 75 ft/lbf for 6- or 8-inch fittings, in accordance with ASTM method of test D2444. No shattering or splitting is acceptable when the impact energy is applied.
- (f) Load Support: When subjected to 1970 lbf for 6-inch fittings and 2630 lbf for 8-inch fittings, per ASTM F1336, there shall be no cracking or separation of the fitting.
- (g) Heat Reversion: When fittings are subjected to the heat reversion test, per ASTM F610, the fitting shall not split, delaminate, or show weld line separation of more than 50% of the wall thickness at the point of penetration.
- (h) All hardware shall be stainless steel in accordance with ASTM F593 and F594.
- (i) The saddle wye or tee shall not protrude into the waterway of the fitting.

#### **2751.02.05 Cleanout**

- (a) Vacuum excavated vertical tee pipe.
  - (1) Four inch diameter vertical pipe attached with watertight seal.
    - i. Approved manufacturers.
      - 1.) LMK Vac-a-Tee.
      - 2.) Jed Saddle Clean-out.
      - 3.) Or equal.
- (b) Open cut excavated cleanout.
  - (1) Refer to the County Standard Specifications and Details.

#### **2751.03 CONSTRUCTION REQUIREMENTS.**

##### **2751.03.01 Preparation.**

- (a) Provide a minimum of 72 hours' notice to customers whose sanitary sewer service will potentially be interrupted. This includes delivering written notices to each home or business including a local telephone number for inquiries or complaints. Provide the owner or occupant with the summary of work to be completed, and the time and duration of service interruption to the building. Contact any home or business that cannot be reconnected within the time stated in the written notice. Fax or email copies of all delivered notices to the County. No house shall be without sewer service for more than 8 hours.

- (b) The approximate locations of identified active service taps are shown on the Contract Drawings; however, the Contractor shall determine the exact location and number of service connections by the dye test method, CCTV, or other methods approved by the County. The Contractor shall accurately field locate existing service connections, whether in service or not. For rehabilitated lines, the Contractor shall use existing service locations to reconnect service lines to new liner, unless otherwise specified on the Contract Drawings or directed by the County. During the line preparation and work operation, inactive sewer house connections shall not be cut but shall be left lined over, unless directed by the County.

**2751.03.02 Reconnection on Rehabilitated Segments.**

- (a) During the terms of the Contract, the Contractor shall maintain an emergency crew fully equipped and capable of reactivating sewer house connections and responding to customer problems after normal work hours. Any costs incurred because of an emergency response to a misidentified house connection, and reinstatement thereof, will be the responsibility of the Contractor and performed at no extra cost to the County and will be considered as incidental to the Contract and not measured for payment. The Contractor will be responsible for all damages to homeowner property that results from deficient house connection reactivations, misidentification of house connections or sewage back-ups resulting from bypass operations. Costs to reinstate service if County emergency utility personnel have to respond shall be billed to the Contractor.
- (b) Contractor shall be responsible for monitoring and supplying sewer service to affected parcels during main line, service lateral, and connection rehabilitation activities as necessary to prevent any sanitary sewer overflows.
- (c) Contractor shall allow liner to normalize to ambient temperature and recover from imposed stretch. For cured-in-place and pulled-in-place glass reinforced plastic liners, verify that liner is completely cured.
- (d) The Contractor shall isolate the lateral to be reinstated or reconnected, as necessary, from the remainder of the sewer in a manner approved by the County. Such method may include bypassing the flow from the section or temporarily plugging the upstream manhole. The Contractor shall conduct operations so as to prevent backflow into residences. Flow control/bypassing shall be completed in accordance with Section 2740.
- (e) Connection Reinstatement Only: After the liner pipe has cured, the Contractor shall reactivate existing sewer house connections. Activation of the connections shall be from the interior of the lined sewer by means of a television camera-directed cutting device that locates the covered sewer service connections and cuts away liner pipe in such a way that a smooth edge is established between the connection and the liner pipe. A standard router bit and wire brush shall be used to complete all service



connection reinstatements. The use of “ball-type” cutters or any other device that causes damage to the existing mainline or service connection piping will not be allowed and any damage caused shall be repaired using a method determined appropriate by the County, up to and including replacement of damaged pipe, at no additional cost to the County. The Contractor shall open each active service connection to a minimum of 75% before the end of each working day, and a minimum of 95% upon completion. Liner pipe shall be tight to existing sewer so there is no annular space between sewer service connection pipe and the liner pipe. Any gaps between the connection pipe and liner pipe shall be filled with a non-shrink chemical grout, verified to be compatible with the liner pipe, to provide a smooth transition. The Contractor shall be responsible for restoring/correcting (by a method approved by the County), without any delay, all missed or faulty reconnections, as well as for any damage caused to property owners for not reconnecting the services soon enough or for not giving notice to the owners. The Contractor shall be also be responsible for repairing any holes drilled/cut in error.

- (f) Contractor shall properly disconnect existing connections from the existing sewer and reconnect to the rehabilitated liner.
- (g) When excavating to expose the house connection, hand excavation shall commence within one foot of the host pipe, to avoid damaging the host pipe liner. The sewer host pipe at the house connection shall be saw cut on both sides of the damaged connection to a flat vertical surface. Remove the host pipe from the liner. If pipe with bell end is removed, spigot end of pipe shall be saw cut and removed a minimum length of the bell depth.
- (h) All connections to a liner shall be made using a shell cutter or hole saw to ensure a proper fit for the new watertight service connection device. The Contractor shall be responsible for completing point repairs of any inactive service connection that is opened but is not specified on the Contract Drawings or required by the County, or has misaligned pilot holes. These point repairs shall be conducted at no additional cost to the County. These repairs shall be as directed and approved by the County.
- (i) The house connection cuts shall be uniform, free of burrs and sharp edges. Any remedial work directed by the County to correct deficient cuts shall be at the Contractor’s expense.
- (j) The proposed house connection material and installation shall be in accordance with County Standard Details S-12 and S-12A.
- (k) If the house connection is specified to be replaced, in conjunction with rehabilitation of the main, the inserta tee method and rubber boot wye (or tee) type saddle are the only methods permitted for making the connection to the rehabilitated sewer.
- (l) Inserta Tee Method

- (1) The Contractor shall remove a portion of the existing sanitary sewer main or carrier pipe to expose the liner pipe. Sufficient working space shall be provided to install an inserta tee.
  - (2) Remove the existing service connection.
  - (3) The Contractor shall precisely cut a circular hole, per the manufacturer's recommendations, in the liner pipe that will form a tight fit between the liner pipe, PVC hub and rubber boot.
  - (4) The Contractor shall install the rubber boot into the cored hole, making sure the boot is properly oriented to the mainline. Lubricate the rubber boot with a special solution provided by the inserta tee manufacturer. Make sure the upper and lower ribs of the rubber boot are correctly seated against the inside and outside diameter of the liner pipe.
  - (5) The Contractor shall insert the PVC hub into the rubber boot, per manufacturer's recommended instructions. Place stainless steel band around the top of the rubber boot and tighten to form a watertight seal.
  - (6) Reinstatements by the inserta tee method that do not produce a watertight seal between the tee and the liner pipe shall be replaced at the Contractor's expense. Sealing such reconnections will not be considered as an option for correcting deficient work.
- (m) PVC Saddle Wye and Gasket with Mechanical Strap**
- (1) Remove a portion of the existing sanitary sewer main or carrier pipe to expose the liner pipe. Clean off liner's exterior and prepare surface for seating saddle. Grinding the surface to make it smooth is not permitted. Provide sufficient working space to install a PVC saddle tee and gasket with mechanical strap.
  - (2) Remove the existing service connection.
  - (3) Precisely cut a circular hole, per the manufacturer's recommendations, in the liner pipe that will form a tight fit between the liner pipe and PVC hub and saddle.
  - (4) Install the PVC hub and saddle over the cored hole, making sure the fittings are properly oriented to the mainline. Make sure the gasket of the saddle is correctly seated against the outside diameter of the liner pipe. The saddle may be required to sit on a bed of resin to smooth out surface.
  - (5) Place stainless steel band around the PVC saddle and tighten to form a watertight seal without crushing or distorting the liner shape.

- (6) Repair any defect to lateral or main, as a result of this Work, at no cost to the County.
- (n) All connections shall be watertight and flush with the liner or replacement pipe. No gaps or areas of infiltration shall exist upon completion of the service connection installation.
- (o) If required, the Contractor shall replace the active sanitary sewer house connections from the rehabilitated sewer main to 6-inches behind the public right-of-way-line and/or edge of easement. In this case, the Contractor shall also locate and replace or install new cleanouts at the property/easement line for all active laterals, unless otherwise directed by the County.
- (p) The Contractor shall provide appropriate sleeves and/or adapters and new PVC or ductile iron pipe to reconnect to the existing sewer house service pipe. All mated ends shall be flush to each other across the face with no gaps or offsets and matched inverts on inside diameter.
- (q) Reconnection of the service lateral at the property line shall be the responsibility of the Contractor. Work shall include but not be limited to service line connections, public property line cleanouts, and restoration. If specified in the Contract Documents (plans or specifications), the Contractor shall also be responsible for the installation of the private laterals (from the property line to the house), and cleanouts (typically within five feet outside the house).
- (r) All services which are reconnected to the rehabilitated or replaced sewer main shall be shown on the "As Built Drawings" with the exact distance from the nearest upstream/downstream manhole.

**2751.03.03 Protection.**

- (a) The Contractor shall provide barricades, warning lights and signs for excavations created for service connections.
- (b) Sand, debris or runoff shall not be allowed to enter sewer system.

**2751.03.04 Trenching and Backfilling.**

- (a) Perform work in accordance with OSHA standards.
- (b) Unless otherwise directed by the County, when the excavation shows that a service line is not active and/or not connected to an active private lateral, the Contractor shall plug the lateral at the connection to the main and backfill the excavation.
- (c) Determine locations where excavation cannot be performed by excavation machinery. Reasons shall include: excavation equipment has limited access; and buildings or structures are adjacent to or over easements. In such cases, obtain approval from County for extra hand excavation.

**2751.03.05      Testing.**

- (a) Perform a Post TV inspection as specified in Section 2742 - Television Inspection. Unless otherwise requested by the County, all replaced service connections shall be post televised inspected. If the lateral has been in-situ lined and/or the County requests inspection of the lateral due to possible defects, the lateral, from the main line connection to the cleanout, shall be inspected as specified in Section 2742 – Television Inspection.

**2751.03.06      Cleanout.**

- (a) Install if there is no existing cleanout or existing cleanout needs to be repaired.
- (b) If replacing existing cleanout, install assembled cleanout in the same off- property location.
- (c) Installation Method
  - (1) Vacuum excavation
    - i. Excavate pit 24 inches maximum diameter to depth of lateral pipe following manufacturer's recommendation.
    - ii. Install cleanout vertical tee pipe.
      - 1.) Apply curing epoxy on underside of saddle at thickness of .2 inches or 5mm. Epoxy: Able to cure in presence of water.
      - 2.) Saddle to snap fit by compression over 50% of host pipes outside diameter.
      - 3.) Conduct water tight test using minimum water column height of 6 feet.
        - a.) Shallow laterals: Install sufficient amount of vertical pipe to accommodate 6 foot water column.
      - 4.) Core through the host lateral.
  - (2) Open cut excavation
    - i. Install per the County Standard Specifications and Details.

**2751.03.07      Cleanup.**

- (a) Upon completion of installation work and testing, clean and restore project area affected by the work.
- (b) Conduct site restoration to repair any damage caused during completion of this Work, including replacement of pavement or sidewalks removed or

damaged by excavation. In unpaved areas, bring surface to grade and slope surrounding the excavation. Replace topsoil and seed.

**2751.04 MEASUREMENT AND PAYMENT.**

**2751.04.01 Reinstatement (Only) of House Connections to Rehabilitated Main Lines.** This item will not be measurement for payment.

- (a) **Basis of Payment.** Payment for reinstatement only of connections to rehabilitated main lines shall be included in the prices bid for items in this proposal and as defined in these Specifications.

**2751.04.02 Replacement of House Connection and Lateral to Rehabilitated Main Lines.** Payment for the replacement of sewer house connections and laterals to rehabilitated main lines shall be based on the unit price per linear foot of lateral replaced, measured horizontally along the centerline of the trench from the wye (or tee) branch on the main sewer through the upstream replaced fittings and/or cap, including the fittings and/or cap, complete-in-place.

- (a) **Basis of Payment:** The unit price bid per linear foot for furnishing and laying sanitary sewer house connections and laterals shall include cutting paving; unclassified excavation and refill removal; storage and rehandling of excavated materials; bracing; furnishing and placing all pipe, fittings, and joining materials, including the encased 6-inchx6-inchx4-inch wye and 45 degree elbow on house connections (if required as part of the lateral replacement); testing; incidentals and related work as shown, specified, and directed; removing and disposing of existing sewer pipes; stack house connection (per Standard Detail S-12); pipe to manhole connector; riser; plug; fittings; cap; Class 1 excavations; full-depth saw cut; concrete encasement (mix No. 1); No. 6 Aggregate bedding; confined space entry and equipment; sewage flow control; erosion and sediment control; traffic control; resident notification; post-television inspection; initial and general backfill and compaction; borrow for backfilling (Contractor shall assume all excavated material is unsuitable and trenches shall be backfilled with borrow); proper offsite disposal of unsuitable material.

**2751.04.03 Installation of Cleanout by Vacuum Excavation.** Payment for the installation of a cleanout by vacuum excavation shall be based on the unit price per each cleanout installed, complete-in-place.

- (a) **Basis of Payment:** The unit price per each cleanout installed by vacuum excavation shall include vacuum excavation; cutting paving; unclassified excavation and refill removal; storage and rehandling of excavated materials; furnishing and placing all pipe, fittings, and connection to service; testing; incidentals and related work as shown, specified, and directed; removing and disposing of existing cleanouts; full-depth saw cut; sewage flow control; erosion and sediment control; traffic control; resident notification; No. 6 aggregate bedding; initial and general backfill and compaction; borrow for backfilling (Contractor shall assume all excavated material is unsuitable excavation shall be backfilled with borrow); proper offsite disposal of unsuitable material.

**2751.04.04 Installation of Cleanout by Open Cut Excavation.** Payment for the installation of a cleanout by open cut excavation shall be based on the unit price per each cleanout installed, complete-in-place.

- (a) **Basis of Payment:** The unit price per each cleanout installed by open cut excavation shall include vacuum excavation; cutting paving; unclassified excavation and refill removal; storage and rehandling of excavated materials; bracing; furnishing and placing all pipe, fittings, and connection to service; testing; incidentals and related work as shown, specified, and directed; removing and disposing of existing cleanouts; full-depth saw cut; confined space entry and equipment; sewage flow control; erosion and sediment control; traffic control; resident notification; No. 6 aggregate bedding; initial and general backfill and compaction; borrow for backfilling (Contractor shall assume all excavated material is unsuitable excavation shall be backfilled with borrow); proper offsite disposal of unsuitable material.

END OF SECTION

## SECTION 2752

### SEWER HOUSE CONNECTION LATERAL SEALS

#### 2752.01 REQUIREMENTS

**2752.01.01 Intent:** It is the intent of this portion of the Specification to provide for the rehabilitation and reconnection of sewer house connections using cured-in-place (CIP) sewer house connection lateral seals (SHCLS) as designated by the Contract Documents to mainline sewers without excavation, by installation of a resin-impregnated, flexible fiberglass or polyester felt seal in the form of a tube with a full circumferential seal that will be installed into the sewer house connection (SHC) lateral utilizing pressure apparatus and either ambient cured or cured using steam, hot water or ultraviolet light. The SHC to be repaired may be a combination of tee's, wyes or break-in taps of varying sizes and angles up to and beyond 30 degrees. The resin shall rapidly cure to transform the flexible liner insert into a hard, impermeable seal around and in the SHC. The SHCLS product shall extend from the mainline sewer through the first connection joint of the SHC lateral pipe to the desired termination location or to a minimum of 1 foot, whichever is longer, in a continuous tight fitting, watertight fashion creating a pipe-within-a-pipe to eliminate any visible ground water leakage and future root growth at the SHC lateral to the mainline sewer connection. The SHCLS system shall be compatible with any mainline sewer and/or SHC pipe or liner system and provide a thorough bond to the mainline sewer cured-in-place pipe (CIPP) liner. The SHCLS shall contain a 16" long full circle sleeve in the mainline sewer and provide a watertight seal between the mainline sewer and the SHC. When cured, the SHCLS shall extend over the required length of the sewer house connection and a particular section of the mainline sewer as a continuous, one piece, tight fitting, corrosion resistant and verifiable non-leaking cured-in-place pipe. If within the warranty period, the SHCLS product installed in the sewer system is not acceptable due to leakage, delaminating or any other defects, the Contractor shall repair or replace the affected portion at no cost to the County. It is understood that if the Contractor fails to do such work as required, the Contractor shall be responsible for said costs of repairs or replacement.

**2752.01.02 Quality Assurance:** For quality assurance, the manufacturer of the specific SHCLS system and installer must be able to document a minimum of 1,500 successful SHCLS installations in the U.S. within the past five years.

**2752.01.03 Submittals:** The Contractor shall submit the information listed below for review and approval. The notice to proceed for this item of work will not be issued until all of the listed information has been reviewed and approved by the County.

- (a) Infrared spectrum for proposed resin and confirmation of the resins meeting ASTM D5813.
- (b) Certification of resin volume and required 5 to 10 percent addition.
- (c) Certification from resin manufacturer regarding approval of resin dye quantity and type.

- (d) Information on the maximum allowable tensile stress for the tube, from the felt manufacturer.
- (e) Documentation of Installer's Experience: Information provided shall include the location of the job, the number of SHCLS installed, project completion date, and the Owner's contact for the job including name, title, address, and phone number. Documentation shall also be provided showing that the installer has been trained by the manufacturer in the installation of their product.
- (f) Documentation of Manufacturer's Experience: Information provided shall include the location of the job, the number of SHCLS installed, project completion date, and the Owner's contact for the job including name, title, address, and phone number.
- (g) Product Warranty and Certification Form: To insure that all products and materials proposed for use on this project are of the highest quality and specifically designed and manufactured for the intended installation or use, a Product Warranty and Certification Form shall be completed by the rehabilitative product manufacturer(s), manufacturer's representative or vendor as well as the Sewer House Connection Lateral Seal installer certifying that the product(s) they are proposing to use is specifically designed for the intended application, installation and/or function. Failure to complete this form may prevent the product(s) from being used on this project.



**PRODUCT WARRANTY AND CERTIFICATION FORM**

REFERENCE: (PROJECT NAME AND CONTRACT NUMBER) - Sewer House Connection Lateral Seals

THE UNDERSIGNED HEREBY ATTESTS THAT HE HAS EXAMINED ALL THE REFERENCED PROJECT INFORMATION, PROJECT INSTALLATION REQUIREMENTS AND THE CONTRACT SPECIFICATIONS AND HEREBY WARRANTS AND CERTIFIES THAT THE REHABILITATION PRODUCTS THAT THEY PROPOSE TO FURNISH, DELIVER AND INSTALL FOR THIS PROJECT MEETS OR EXCEEDS THE REQUIREMENTS OF THESE CONTRACT SPECIFICATIONS, IS SUITABLE FOR THE INTENDED PURPOSE AND INSTALLATION, AND WILL SATISFACTORILY PERFORM TO THE CRITERIA SPECIFIED. THIS WARRANTY SHALL BE IN ADDITION TO, AND NOT IN LIEU OF, ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED.

PRODUCT: \_\_\_\_\_

MANUFACTURER: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Product's Manufacturer. In the event the manufacturer is not the Supplier then a Principal Person of the Supplier must also sign this form.

MANUFACTURER'S REPRESENTATIVE/VENDOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

The Product Warranty and Certification must be signed by a Principal Person (President, Vice-President, etc.) of the Installation Contractor. In the event the manufacturer is not the Installation Contractor then a Principal Person of the Installation Contractor must also sign this form.

INSTALLATION CONTRACTOR: \_\_\_\_\_

Address:

By: \_\_\_\_\_  
(Typed Name and Title)

(SEAL)

\_\_\_\_\_/s/\_\_\_\_\_  
(Signature) (Date)

## **2752.02 MATERIAL REQUIREMENTS:**

### **2752.02.01 General Corrosion Requirements:**

- (a) The finished SHCLS product shall be either a polyester felt or ECR (E-glass corrosion resistant) fiberglass laminate, impregnated with resin to cure via steam, hot water, UV light, or ambient cure, and which, when cured, is chemically resistant to domestic sewage over the expected life time of the rehabilitated pipe.
- (b) The SHCLS product shall be compatible with the lining system utilized for the main and/or lateral sewer lines and provide a thorough bond between the lining materials.
- (c) This Specification references the American Society for Testing and Materials (ASTM) standards that are made part hereof by reference and shall be the latest edition and revision.

D543 Testing Method of Plastics to Chemical Reagents

D578 Standard Specifications for Glass Fiber Strands

D1600 Abbreviations of Terms Relating to Plastics

D 790 Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials

- (d) Reference is further made to NASSCO Standard: Recommended Specification for Sewer Collection Systems Rehabilitation.

### **2752.02.02 Materials:**

- (a) The flexible fiberglass or polyester felt SHCLS is a tube type insert that shall be fabricated to the proper size for the SHC and mainline sewer pipe where the seal is to be installed. The proper fit will allow the SHCLS to key into the internal surface irregularities of the SHC lateral joint and neatly fit tight to the internal circumference of the SHC. The SHCLS tube shall be a laminate made of non-woven fiberglass or polyester felt materials that allows for circumferential stretching and angular alignment with the SHC lateral pipes connection geometry during the seals installation.
- (b) The minimum length shall be that deemed necessary by the installer to effectively span the distance from the SHC at the mainline sewer through the first connection joint to the desired termination location or a minimum of 1 foot, whichever is longer, in the SHC lateral pipe.
- (c) Unless otherwise specified, the SHCLS installer shall furnish a specially designed, unsaturated polyester or vinyl ester resin, and catalyst system compatible with the seals curing process that provides cured physical strengths as specified herein.

**2752.02.03 Physical Properties:**

- (a) The structural performance of the finished seal must be adequate to accommodate all anticipated loads throughout its design life.
- (b) Design methods are to be derived from traditionally accepted pipe formula for various loading parameters and modes of failure. All equations will be modified to include ovality as a design parameter. The design method shall be submitted to the County for approval prior to the pre-construction conference.
- (c) The cured SHCLS shall conform to the minimum structural standards as listed below:

Final SHCLS	ASTM Standard	Results
Flexural Stress	ASTM D790	4,500 psi
Flexural Modulus of Elasticity	ASTM D790	250,000 psi

**2752.02.04 Deviations:**

- (a) Should pre-inspection reveal that the SHCLS cannot be used, the Contractor shall notify the County and provide the location(s), reason(s) each SHCLS cannot be installed, and supporting CCTV for each location. The Contractor will provide an alternate repair option at each of these locations where the SHCLS cannot be installed. The County will review and determine what, if any, method of repair will be used.

**2752.03 CONSTRUCTION REQUIREMENTS:**

**2752.03.01 Inspection:** After suitable cleaning and video inspection have confirmed that the lateral connection is suitable for installation of the seal, introduce the fiberglass or polyester felt SHCLS from the mainline into the lateral as follows:

**2752.03.02 Installation:**

- (a) Flow control shall be in accordance with Section 02740 – Flow Control Section of these Specifications.
- (b) A flexible resin impregnated tube sized to the existing SHC will be inserted into the SHC lateral by means of a robotic manipulator device. The robotic device, together with a CCTV inspection camera, will be used to align the repair product with the SHC opening. Air pressure, supplied to the applicator through an air hose, shall be used to invert the resin impregnated SHCLS into the existing SHC. The inversion pressure will be adjusted to fully deploy the SHCLS into the SHC lateral and hold it tight to the mainline sewer and SHC pipe walls. Care shall be taken during the curing process so as not to over-stress the liner tube.

- (c) The inserted product will be inspected using a CCTV camera to confirm the product is correctly positioned and/or centered in the SHC lateral opening prior to curing.
- (d) The pressure apparatus shall include a bladder of sufficient size and length in both the mainline sewer and SHC lateral to extend beyond the ends of both the SHCLS tube and mainline connection segments. A smooth transition from the SHCLS to the mainline and SHC pipe diameters without a step, ridge or gap between the product and the inner diameters of the SHC lateral and mainline sewer must be achieved.

**2752.03.03 Curing:**

- (a) After inversion of the SHCLS is completed, manufacturer recommended pressure is maintained on the impregnated SHCLS tube for the duration of the curing process.
- (b) The cure shall be deemed to be completed when the SHCLS has been ambient cured, or cured using UV light, steam, or hot water for the time period specified by the SHCLS manufacturer.

**2752.03.04 Cool-down:**

- (a) The Contractor shall cool the hardened SHCLS before relieving the pressure in the pressure apparatus. Cool-down may be accomplished by the introduction of cool air into the pressure apparatus. Care shall be taken to maintain proper pressure throughout the cure and cool-down period.

**2752.03.05 Finish:**

- (a) The finished SHCLS liner shall be free from visual defects such as foreign inclusions, dry spots, keel, boat hull, pinholes, wrinkles, and other deformities and increase the flow rate. The SHCLS shall taper at each end providing a smooth transition for accommodating video inspection or cleaning equipment and providing proper flow in the mainline. Frayed ends of the SHCLS shall be removed prior to acceptance. Defects that negatively impact the flow, or create obstructions for debris to get caught on will not be allowed, and SHCLS rejected. If rejected, the SHCLS shall be repaired, or lateral replaced, at the Contractor's expense and in a manner acceptable to the County.
- (b) During the warranty period, any defects which will affect the integrity or strength of the SHCLS shall be repaired, or lateral replaced, at the Contractor's expense and in a manner acceptable to the County.
- (c) After work is completed, the Contractor shall provide the County with pre-installation CCTV inspection and CCTV of the SHCLS installation process. This documentation shall be in DVD format and shall show the completed work including the restored conditions.

**2752.03.06 CLEAN-UP:**

- (a) Upon acceptance of the SCHLS installation work, the Contractor shall restore the project area affected by their operations.

**2752.03.07 INSTALLATION AND FINAL ACCEPTANCE INSPECTIONS:**

- (a) Contractor shall take video showing the installation process for the seals and submit this video to the County prior to payment for the seals.
- (b) Final acceptance of this work is contingent on the receipt, review, and approval of the Final Acceptance TV Inspection described in Section 2742.

**2752.04 MEASUREMENT AND PAYMENT:**

**2752.04.01 Sewer House Connection Lateral Seals:** Measurement for payment will be per each full circumferential (full-wrap) SHCLS successfully installed and accepted in-place by the County. SHCLS may be added or removed at the County's discretion.

- (a) Basis for payment: Payment for the installation of SHCLS will be full compensation for the successful installation of the lateral seals. Work will include sewer flow control, public notification, traffic control, any required excavation and restoration, mainline and/or SHC pipe cleaning, root and debris removal, installation of the SHCLS, pre-installation and installation CCTV inspection including submission of videos and television logs, testing, clean-up and site restoration and all other incidental items required to successfully install the SHCLS. Payment for this item does not indicate final acceptance of this item; final acceptance is contingent on the receipt, review, and approval of the Final Acceptance TV Inspection described in Section 2742.

**2752.04.02 Sewer House Connection Lateral Seals, Additional Length.** Measurement and payment will be per linear foot of full circumferential (full-wrap) SHCLS successfully installed and accepted in-place by the County beyond the minimum SHCLS length described herein.

- (a) Basis for payment: Payment shall be made at the contract unit price bid per linear foot beyond the minimum SHCLS length described herein for the successful installation of the lateral seals additional length. Work will include sewer flow control, public notification, any required excavation and restoration, mainline and/or SHC pipe cleaning, root and debris removal, installation of the SHCLS, pre-installation and installation CCTV inspection including submission of videos and television logs, testing, clean-up and site restoration and all other incidental items required to successfully install the SHCLS. Payment for this item does not indicate final acceptance of this item; final acceptance is contingent on the receipt, review, and approval of the Final Acceptance TV Inspection described in Section 2742.

END OF SECTION

## **S E C T I O N   I I I**

### **Permits**



**Baltimore County, Maryland**  
**Department of Permits, Approvals, and Inspections**  
**BUILDING PERMIT**

**Permit Number:** CEN25-000020

**Permit Type:** Commercial Environmental

**Sub Type:** Grading

**Date Issued:** 03/20/2025

**Expiration Date:** 03/19/2027

<i>Property Information</i>	<i>Lot Size and Setbacks</i>
<p><b>Property Address:</b></p> <p><b>City, State, Zip:</b> , ,</p> <p><b>Tax ID:</b></p> <p><b>District:</b></p> <p><b>Existing Use:</b></p> <p><b>Proposed Use:</b></p> <p><b>Is this property located in a Floodplain:</b></p> <p><b>Sprinkler to be Installed?:</b></p> <p><b>Plumbing Work?:</b></p> <p><b>Electrical Work?:</b></p>	<p><b>Size:</b></p> <p><b>Set Backs - Front Yard:</b></p> <p><b>Set Backs - Rear Yard:</b></p> <p><b>Set Backs - Right Side Yard:</b></p> <p><b>Set Backs - Left Side Yard:</b></p>
<i>Owner Information</i>	
<p><b>Owner:</b> -</p> <p><b>Owner Address:</b> -, -, MD, -</p> <p><b>Tenant:</b></p> <p><b>Applicant:</b> Can Hancer</p>	

  
C. Pete Gutwald, AICP, Director

  
E. John Bryan, Building Engineer

\*Please log into your account to get up-to-date information regarding the permit process and related inspections. Refer to the Permit Number when making inquiries.





**Baltimore County, Maryland**  
**Department of Permits, Approvals, and Inspections**  
**BUILDING PERMIT**

**Permit Number:** CEN25-000020

**Permit Type:** Commercial Environmental

**Sub Type:** Grading

**Date Issued:** 03/20/2025

**Expiration Date:** 03/19/2027

***Building Permit Contractor***

**Name of Contractor:** TBD

**Phone Number:**

**Address:**

**City, State, Zip:** , ,

**Is Owner Contractor?:**

***Building Permit Information***

**Description of Work:** Grade 169,891SF for sewer rehab. Permit expires two years from date of issue.

No construction to begin until pre-construction meeting. Failure to comply will result in penalties. Schedule your pre-construction meeting in your portal

C. Pete Gutwald, AICP, Director

E. John Bryan, Building Engineer

\*Please log into your account to get up-to-date information regarding the permit process and related inspections. Refer to the Permit Number when making inquiries.

**STATE OF MARYLAND**  
**DEPARTMENT OF THE ENVIRONMENT**  
**WATER AND SCIENCE ADMINISTRATION**

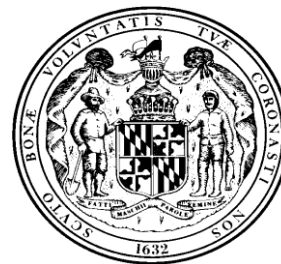
**MODIFICATION OF AUTHORIZATION**

AUTHORIZATION NUMBER: 17-NT-0129/201760630

EFFECTIVE DATE: May 9, 2022

EXPIRATION DATE: May 9, 2027

AUTHORIZED PERSON: Baltimore County Department of  
Public Works  
111 W Chesapeake Ave, Room 307  
Towson, Maryland 21204



IN ACCORDANCE WITH ENVIRONMENT ARTICLE §5-503(a) AND §5-906(a), ANNOTATED CODE OF MARYLAND, COMAR 26.17.04, 26.23.01 AND 26.08.02, NONTIDAL WETLANDS & WATERWAYS LETTER OF AUTHORIZATION NUMBER 17-NT-0129/201760630, ISSUED TO Baltimore County Department of Public Works, ("AUTHORIZED PERSON"), IS HEREBY MODIFIED BY THE WATER AND SCIENCE ADMINISTRATION ("ADMINISTRATION") AS DESCRIBED BELOW:

To extend the Authorization effective date to the maximum time limit possible.

NOTE: No further time extensions can be made to this Authorization, refer to COMAR 26.23.03.01(F).

THIS MODIFICATION SHALL BE CONSIDERED AS PART OF NONTIDAL WETLANDS & WATERWAYS LETTER OF AUTHORIZATION NUMBER 17-NT-0129/201760630. ALL OTHER CONDITIONS AND ELEMENTS OF THE AUTHORIZATION REMAIN IN EFFECT.

Heather L. Nelson  
Program Manager  
Wetlands and Waterways Program

cc: MDE Compliance Program  
Ramboll – Christopher Kriegner

**STATE OF MARYLAND**  
**DEPARTMENT OF THE ENVIRONMENT**  
**WATER MANAGEMENT ADMINISTRATION**  
**LETTER OF AUTHORIZATION**

AUTHORIZATION NUMBER: 17-NT-0129/201760630

EFFECTIVE DATE: May 9, 2017

EXPIRATION DATE: May 9, 2022

AUTHORIZED PERSON: Baltimore County Dept of Public Works  
111 W Chesapeake Ave, Room 307  
Towson, Maryland 21204  
Attn: Lisa Eicholtz



IN ACCORDANCE WITH ENVIRONMENT ARTICLE §5-503(a) AND §5-906(b), ANNOTATED CODE OF MARYLAND (2007 REPLACEMENT VOLUME), COMAR 26.17.04 AND 26.23.01, AND 26.08.02 AND THE ATTACHED CONDITIONS OF AUTHORIZATIONS, Baltimore County Dept of Public Works (AUTHORIZED PERSON"), IS HEREBY AUTHORIZED BY THE WATER MANAGEMENT ADMINISTRATION ("ADMINISTRATION") TO CONDUCT A REGULATED ACTIVITY IN A NONTIDAL WETLAND, BUFFER, OR EXPANDED BUFFER, AND/OR TO CHANGE THE COURSE, CURRENT OR CROSS-SECTION OF WATERS OF THE STATE, IN ACCORDANCE WITH THE ATTACHED PLANS APPROVED BY THE ADMINISTRATION ON May 9, 2017 ("APPROVED PLAN") AND PREPARED BY O'Brien & Gere Engineers, Inc. AND INCORPORATED HEREIN, AS DESCRIBED BELOW:

For the rehabilitation of sanitary sewer pipes and manholes along the Herring Run Sewershed. The work includes; grouting, sewer lining, external and internal point, spot repairs, joining, sealing and the replacement of manholes. The work will result in temporary impacts to 4,766 square feet of forested nontidal wetlands 4,872 square feet of 25-foot nontidal wetland buffer, 183 linear feet (3,384 square feet) of stream and 3,342 square feet of 100-year floodplain. The project is located along the Herring Run stream valley between Taylor Avenue and Perring Parkway in Towson in Baltimore County.

MD Grid Coordinates: 190169 x 436537

Denise M. Keehner  
Program Manager  
Wetlands and Waterways Program

Attachments: Conditions of Authorization

cc: MDE Compliance Program  
US Army Corps of Engineers-Section Northern  
O'Brien & Gere Engineers, Inc.

1. **Validity:** Authorization is valid only for use by Authorized Person. Authorization may be transferred only with prior written approval of the Administration. In the event of transfer, transferee agrees to comply with all terms and conditions of Authorization.
2. **Initiation of Work, Modifications and Extension of Term:** Authorized Person shall initiate authorized activities in waterways, including streams and the 100-year floodplain, within two (2) years of the Effective Date of this Authorization or the Authorization shall expire. [Annotated Code of Maryland, Environment Article 5-510(a)-(b) and Code of Maryland Regulations 26.17.04.12]. Authorized Person may submit written requests to the Administration for (a) extension of the period for initiation of work, (b) modification of Authorization, including the Approved Plan, or, (c) not later than 45 days prior to Expiration Date, an extension of term. Requests for modification shall be in accordance with applicable regulations and shall state reasons for changes, and shall indicate the impacts on nontidal wetlands, streams, and the floodplain, as applicable. The Administration may grant a request at its sole discretion. (Annotated Code of Maryland, Environment Article 5-510(c), and Code of Maryland Regulations 26.17.04.12, and Annotated Code of Maryland, Environment Article 5-907 and Code of Maryland Regulations 26.23.02.07).
3. **Responsibility and Compliance:** Authorized Person is fully responsible for all work performed and activities authorized by this Authorization shall be performed in compliance with this Authorization and Approved Plan. Authorized Person agrees that a copy of the Authorization and Approved Plan shall be kept at the construction site and provided to its employees, agents and contractors. A person (including Authorized Person, its employees, agents or contractors) who violates or fails to comply with the terms and conditions of this Authorization, Approved Plan or an administrative order may be subject to penalties in accordance with §5-514 and §5-911, Department of the Environment Article, Annotated Code of Maryland (2007 Replacement Volume).
4. **Failure to Comply:** If Authorized Person, its employees, agents or contractors fail to comply with this Authorization or Approved Plan, the Administration may, in its discretion, issue an administrative order requiring Authorized Person, its employees, agents and contractors to cease and desist any activities which violate this Authorization, or the Administration may take any other enforcement action available to it by law, including filing civil or criminal charges.
5. **Suspension or Revocation:** Authorization may be suspended or revoked by the Administration, after notice of opportunity for a hearing, if Authorized Person: (a) submits false or inaccurate information in Permit application or subsequently required submittals; (b) deviates from the Approved Plan, specifications, terms and conditions; (c) violates, or is about to violate terms and conditions of this Authorization; (d) violates, or is about to violate, any regulation promulgated pursuant to Title 5, Department of the Environment Article, Annotated Code of Maryland as amended; (e) fails to allow authorized representatives of the Administration to enter the site of authorized activities at any reasonable time to conduct inspections and evaluations; (f) fails to comply with the requirements of an administrative action or order issued by the Administration; or (g) does not have vested rights under this Authorization and new information, changes in site conditions, or amended regulatory requirements necessitate revocation or suspension.
6. **Other Approvals:** Authorization does not authorize any injury to private property, any invasion of rights, or any infringement of federal, State or local laws or regulations, nor does it obviate the need to obtain required authorizations or approvals from other State, federal or local agencies as required by law.
7. **Site Access:** Authorized Person shall allow authorized representatives of the Administration access to the site of authorized activities during normal business hours to conduct inspections and evaluations necessary to assure compliance with this Authorization. Authorized Person shall provide necessary assistance to effectively and safely conduct such inspections and evaluations.
8. **Inspection Notification:** Authorized Person shall notify the Administration's Compliance Program at least five (5) days before starting authorized activities and five (5) days after completion. For Allegany, Garrett, and Washington Counties, Authorized Person shall call 301-689-1480. For Carroll, Frederick, Howard, Montgomery and Prince George's Counties, Authorized Person shall call 301-665-2850. For Baltimore City, Anne Arundel, Baltimore, Calvert, Charles, and St. Mary's Counties, Authorized Person shall call 410-537-3510. For Caroline, Cecil, Dorchester, Harford, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester Counties, Authorized Person shall call 410-901-4020. If Authorization is for a project that is part of a mining site, please contact the Land Management Administration's Mining Program at 410-537-3557 at least five (5) days before starting authorized activities and five (5) days after completion.
9. **Sediment Control:** Authorized Person shall obtain approval from the Baltimore County Soil Conservation District for a grading and sediment control plan specifying soil erosion control measures. The approved grading and sediment control plan shall be included in the Approved Plan, and shall be available at the construction site.
10. **Federally Mandated State Authorizations:**
  - ☒ **Water Quality Certification:** Water Quality Certification is granted for this project provided that all work is performed in accordance with the authorized project description and associated conditions.
  - ☒ **Coastal Zone Consistency:** This Authorization constitutes official notification that authorized activities are consistent with the Maryland Coastal Zone Management Program, as required by Section 307 of the Federal Coastal Zone Management Act of 1972, as amended. Activities within the following counties are not subject to this requirement: Allegany, Carroll, Frederick, Garrett, Howard, Montgomery, and Washington.

11. **Best Management Practices During Construction:** Authorized Person, its employees, agents and contractors shall conduct authorized activities in a manner consistent with the Best Management Practices specified by the Administration.
12. **Disposal of Excess:** Unless otherwise shown on the Approved Plan, all excess fill, spoil material, debris, and construction material shall be disposed of outside of nontidal wetlands, nontidal wetlands buffers, and the 100-year floodplain, and in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands.
13. **Temporary Staging Areas:** Temporary construction trailers or structures, staging areas and stockpiles shall not be located within nontidal wetlands, nontidal wetlands buffers, or the 100-year floodplain unless specifically included on the Approved Plan.
14. **Temporary Stream Access Crossings:** Temporary stream access crossings shall not be constructed or utilized unless shown on the Approved Plan. If temporary stream access crossings are determined necessary prior to initiation of work or at any time during construction, Authorized Person, its employees, agents or contractors shall submit a written request to the Administration and secure the necessary permits or approvals for such crossings before installation of the crossings. Temporary stream access crossings shall be removed and the disturbance stabilized prior to completion of authorized activity or within one (1) year of installation.
15. **Discharge:** Runoff or accumulated water containing sediment or other suspended materials shall not be discharged into waters of the State unless treated by an approved sediment control device or structure.
16. **Instream Construction Prohibition:** To protect important aquatic species, motor driven construction equipment shall not be allowed within stream channels unless on authorized ford crossings. Activities within stream channels are prohibited as determined by the classification of the stream (COMAR 26.08.02.08): Herring Run is a Use IV waterway; in-stream work may not be conducted from March 1 through May 31 inclusive, of any year.
17. **Instream Blasting:** Authorized Person shall obtain prior written approval from the Administration before blasting or using explosives in the stream channel.
18. **Minimum Disturbance:** Any disturbance of stream banks, channel bottom, wetlands, and wetlands buffer authorized by this Authorization or Approved Plan shall be the minimum necessary to conduct permitted activities. All disturbed areas shall be stabilized vegetatively no later than seven (7) days after construction is completed or in accordance with the approved grading or sediment and erosion control plan.
19. **Restoration of Construction Site:** Authorized Person shall restore the construction site upon completion of authorized activities. Undercutting, meandering or degradation of the stream banks or channel bottom, any deposition of sediment or other materials, and any alteration of wetland vegetation, soils, or hydrology, resulting directly or indirectly from construction or authorized activities, shall be corrected by Authorized Person as directed by the Administration.
20. **Mitigation:** Mitigation is not required for this project.

#### **U.S. ARMY CORPS OF ENGINEERS AUTHORIZATION**

The U.S. Army Corps of Engineers has reviewed this activity and has granted authorization under the Maryland State Programmatic General Permit (MDSPGP-5), as a Category A activity A(c-1). The terms and conditions of the MDSPGP-5 as outlined in the enclosed attachment, should be followed when performing the authorized work

**BEST MANAGEMENT PRACTICES FOR WORKING IN  
NONTIDAL WETLANDS, WETLAND BUFFERS,  
WATERWAYS, AND 100-YEAR FLOODPLAINS**

- 1) No excess fill, construction material, or debris shall be stockpiled or stored in nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- 2) Place materials in a location and manner which does not adversely impact surface or subsurface water flow into or out of nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- 3) Do not use the excavated material as backfill if it contains waste metal products, unsightly debris, toxic material, or any other deleterious substance. If additional backfill is required, use clean material free of waste metal products, unsightly debris, toxic material, or any other deleterious substance.
- 4) Place heavy equipment on mats or suitably operate the equipment to prevent damage to nontidal wetlands, nontidal wetland buffers, waterways, or the 100-year floodplain.
- 5) Repair and maintain any serviceable structure or fill so there is no permanent loss of nontidal wetlands, nontidal wetland buffers, or waterways, or permanent modification of the 100-year floodplain in excess of that lost under the originally authorized structure or fill.
- 6) Rectify any nontidal wetlands, wetland buffers, waterways, or 100-year floodplain temporarily impacted by any construction.
- 7) All stabilization in the nontidal wetland and nontidal wetland buffer shall consist of the following species: Annual Ryegrass (Lolium multiflorum), Millet (Setaria italica), Barley (Hordeum sp.), Oats (Uniola sp.), and/or Rye (Secale cereale). These species will allow for the stabilization of the site while also allowing for the voluntary revegetation of natural wetland species. Other non-persistent vegetation may be acceptable, but must be approved by the Nontidal Wetlands and Waterways Division. **Kentucky 31 fescue shall not be utilized in wetland or buffer areas.** The area should be seeded and mulched to reduce erosion after construction activities have been completed.
- 8) After installation has been completed, make post-construction grades and elevations the same as the original grades and elevations in temporarily impacted areas.
- 9) To protect aquatic species, in-stream work is prohibited as determined by the classification of the stream:

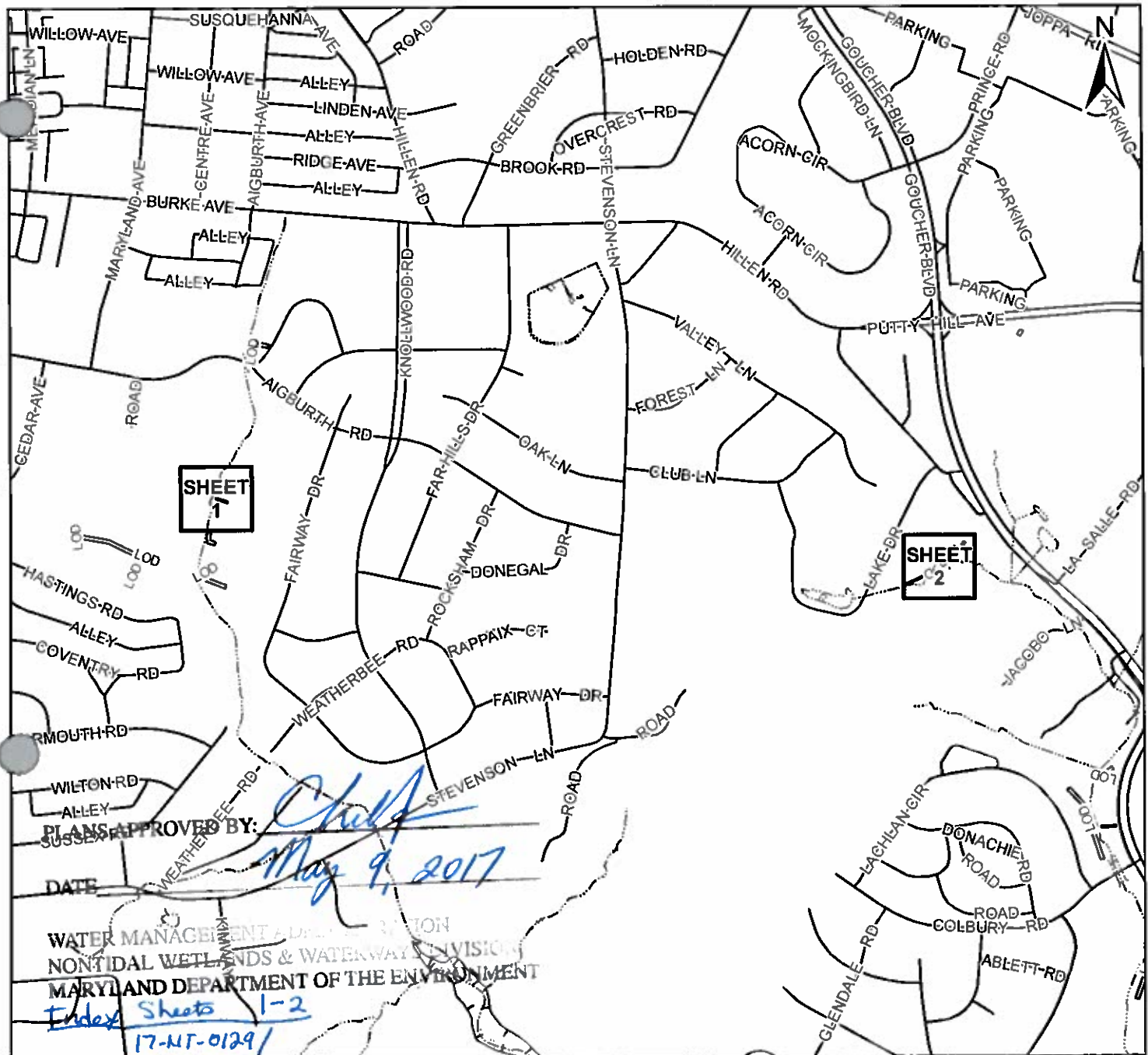
Use I waters: In-stream work shall not be conducted during the period March 1 through June 15, inclusive, during any year.

Use III waters: In-stream work shall not be conducted during the period October 1 through April 30, inclusive, during any year.

Use IV waters: In-stream work shall not be conducted during the period March 1 through May 31, inclusive, during any year.

- 10) Stormwater runoff from impervious surfaces shall be controlled to prevent the washing of debris into the waterway.
- 11) Culverts shall be constructed and any riprap placed so as not to obstruct the movement of aquatic species, unless the purpose of the activity is to impound water.





#### LEGEND

100-YEAR FLOODPLAIN    IMPACT PLATE    ROADS    WATERWAY    LOD LIMITS OF DISTURBANCE

#### WETLAND IMPACTS

WETLAND IMPACTS = N/A

#### WATERS OF THE U.S. (WUS) IMPACTS

WUS IMPACTS = 679 SF/0.02 AC/63 LF

#### WETLAND BUFFER IMPACTS

WETLAND BUFFER IMPACTS = N/A

#### FLOODPLAIN IMPACTS

FLOODPLAIN IMPACTS = N/A

#### SCALE:

1 INCH = 800 FEET

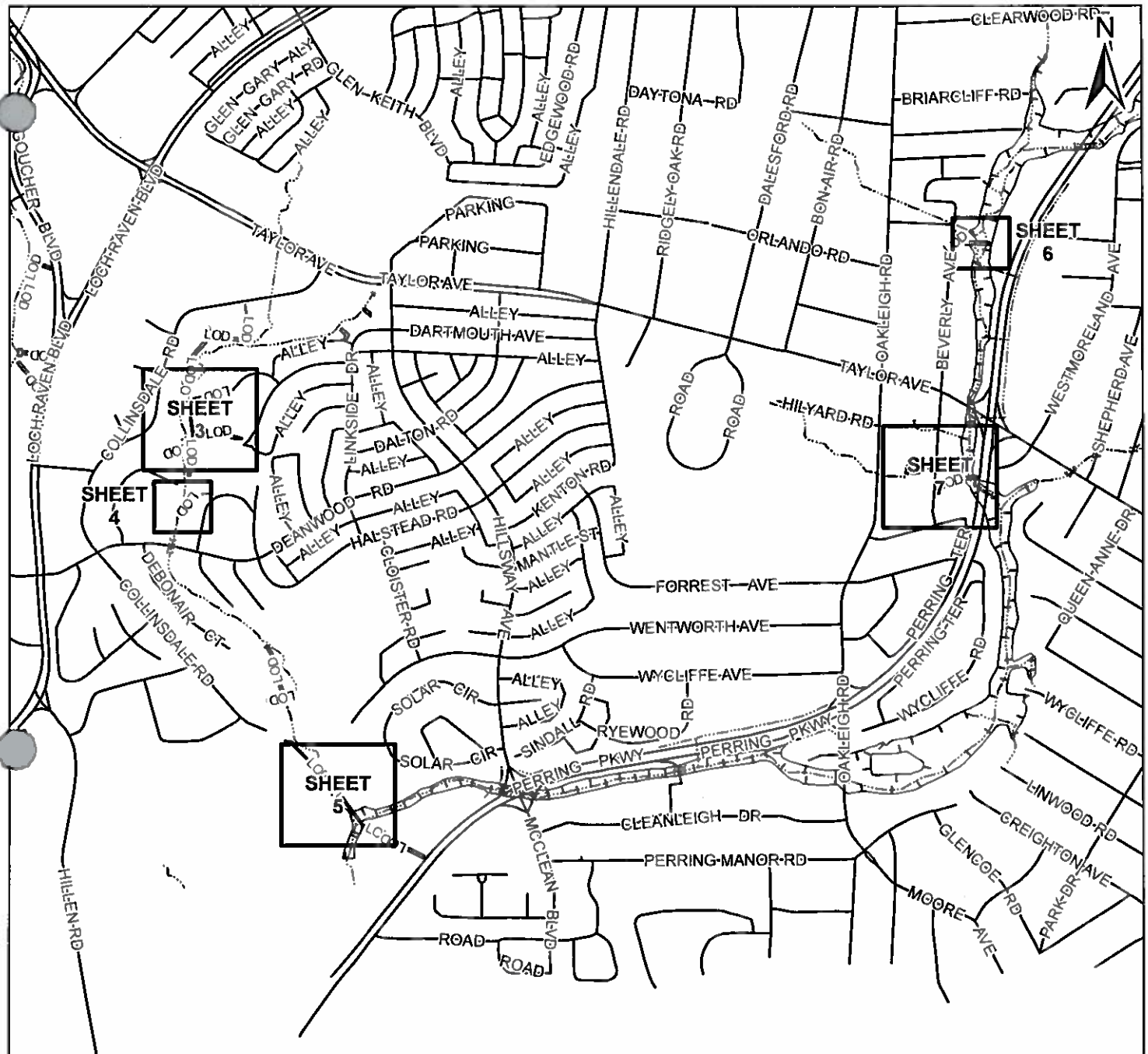
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O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
 STRUCTURAL REHABILITATION  
 HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
 APPLICATION BY: BALTIMORE COUNTY  
 DEPT. OF PUBLIC WORKS  
 INDEX 1 OF 2 MARCH 2017



#### LEGEND

100-YEAR FLOODPLAIN    IMPACT PLATE    ROADS    WATERWAY    LOD LIMITS OF DISTURBANCE

#### WETLAND IMPACTS

WETLAND IMPACTS = 4,766 SF/0.11 AC

#### WETLAND BUFFER IMPACTS

WETLAND BUFFER IMPACTS = 4,872 SF/0.11 AC

#### WATERS OF THE U.S. (WUS) IMPACTS

WUS IMPACTS = 2,705 SF/0.06 AC/120 LF

#### FLOODPLAIN IMPACTS

FLOODPLAIN IMPACTS = 3,342 SF/0.08 AC

#### SCALE:

1 INCH = 1,000 FEET

0 500 1,000 2,000 FEET

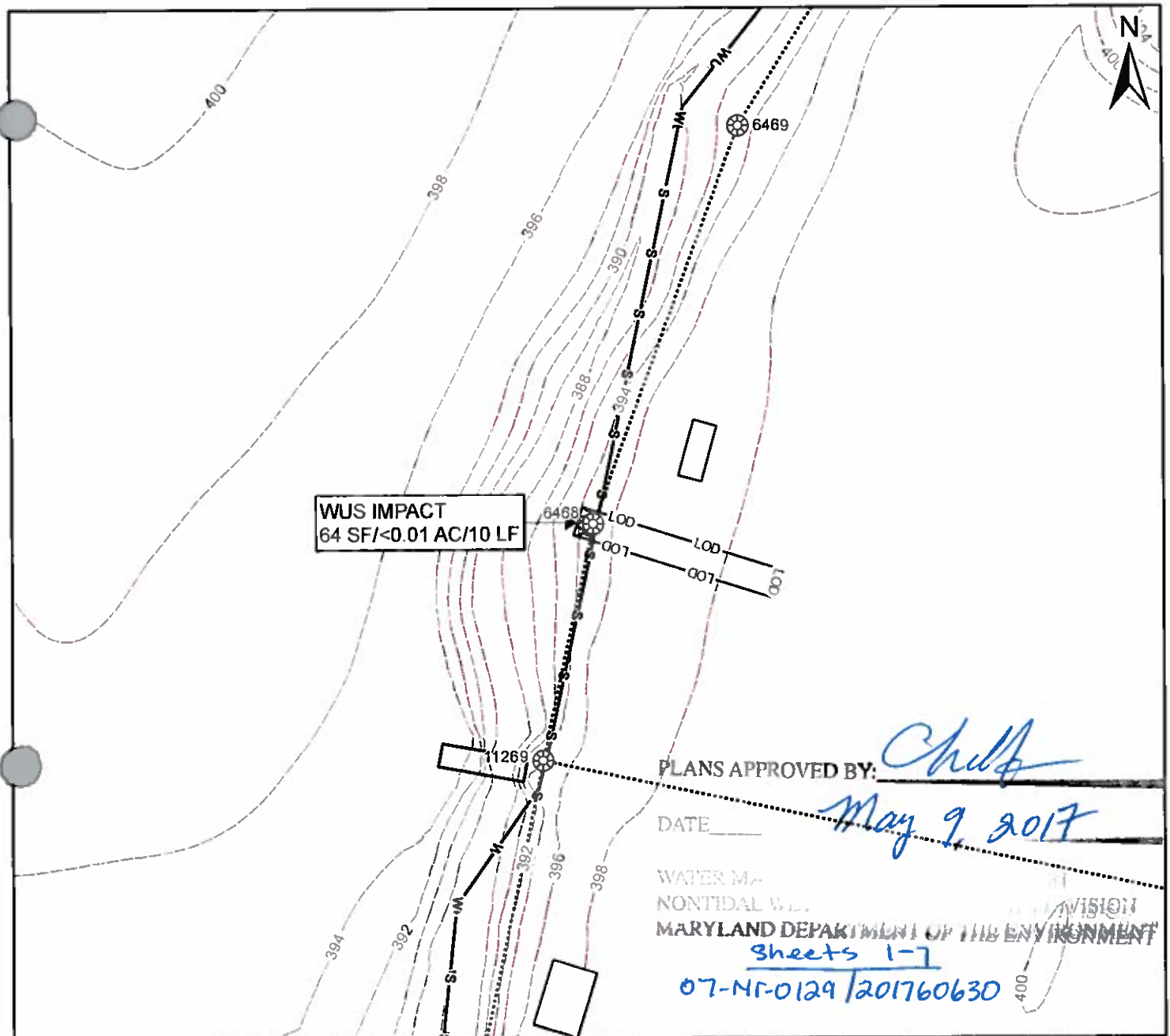


O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
INDEX 2 OF 2 MARCH 2017





#### LEGEND

- |                      |                     |                  |                             |
|----------------------|---------------------|------------------|-----------------------------|
| —●— WETLAND BOUNDARY | —WUS— WUS BOUNDARY  | ● MANHOLE        | —LOD— LIMITS OF DISTURBANCE |
| —100-YEAR FLOODPLAIN | —WB— WETLAND BUFFER | ..... SEWER PIPE | --- 2-FOOT EXISTING CONTOUR |

#### WETLAND IMPACTS

WETLAND IMPACTS = N/A

#### WETLAND BUFFER IMPACTS

WETLAND BUFFER IMPACTS = N/A

#### WATERS OF THE U.S. (WUS) IMPACTS

WUS IMPACTS = 64 SF / <0.01 AC / 10 LF

#### 100-YEAR FLOODPLAIN IMPACTS

FLOODPLAIN IMPACTS = N/A

#### SCALE:

1 INCH = 50 FEET

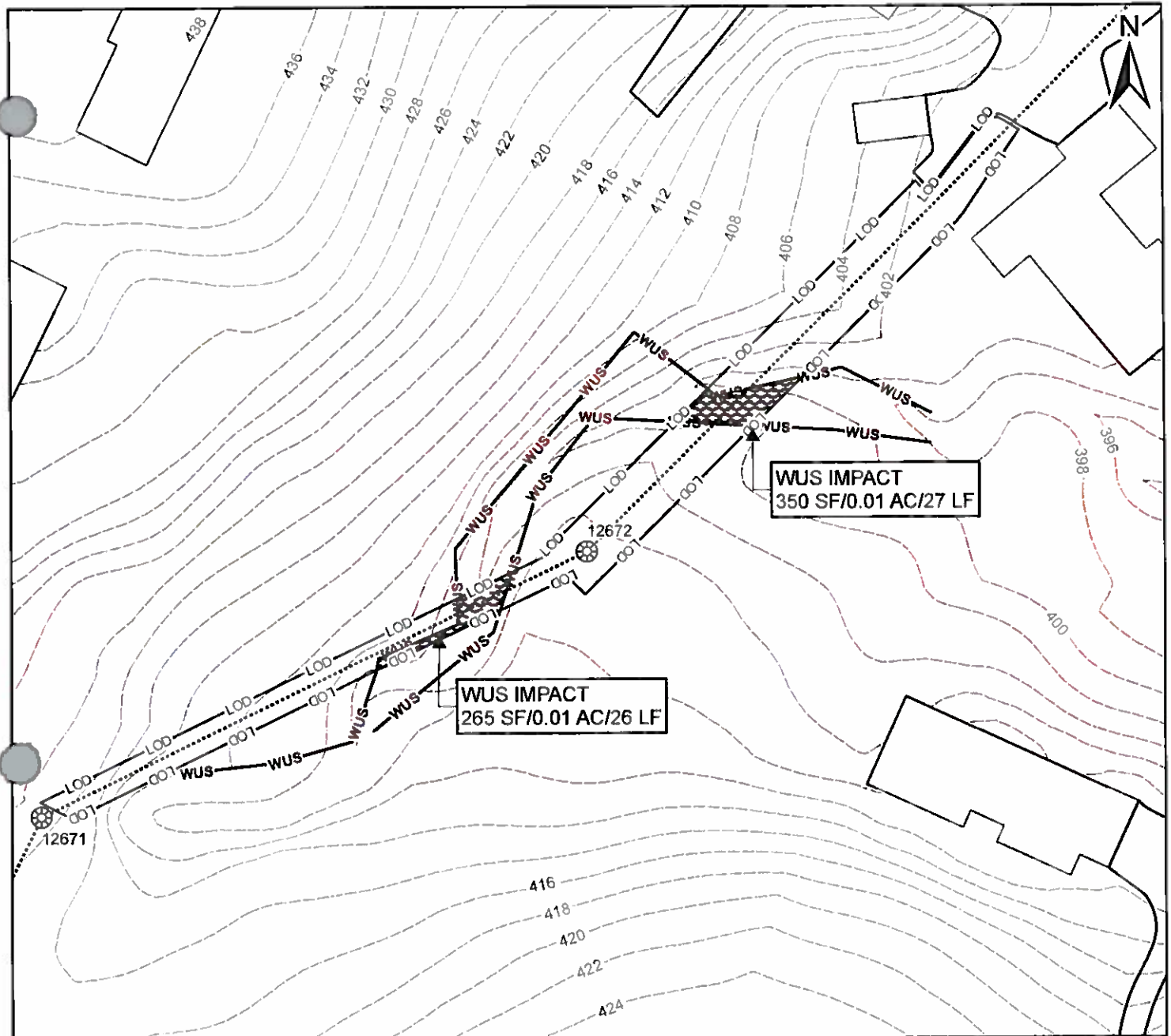
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O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
SHEET 1 OF 7 MARCH 2017



#### LEGEND

- |                      |                     |                  |                               |
|----------------------|---------------------|------------------|-------------------------------|
| —●— WETLAND BOUNDARY | —WUS— WUS BOUNDARY  | ⊗ MANHOLE        | —LOD— LIMITS OF DISTURBANCE   |
| —100-YEAR FLOODPLAIN | —WB— WETLAND BUFFER | ..... SEWER PIPE | - - - 2-FOOT EXISTING CONTOUR |

#### WETLAND IMPACTS

⊗ WETLAND IMPACTS = N/A

#### WETLAND BUFFER IMPACTS

⊗ WETLAND BUFFER IMPACTS = N/A

#### WATERS OF THE U.S. (WUS) IMPACTS

⊗ WUS IMPACTS = 615 SF/0.01 AC/53 LF

#### 100-YEAR FLOODPLAIN IMPACTS

⊗ FLOODPLAIN IMPACTS = N/A

#### SCALE:

1 INCH = 50 FEET

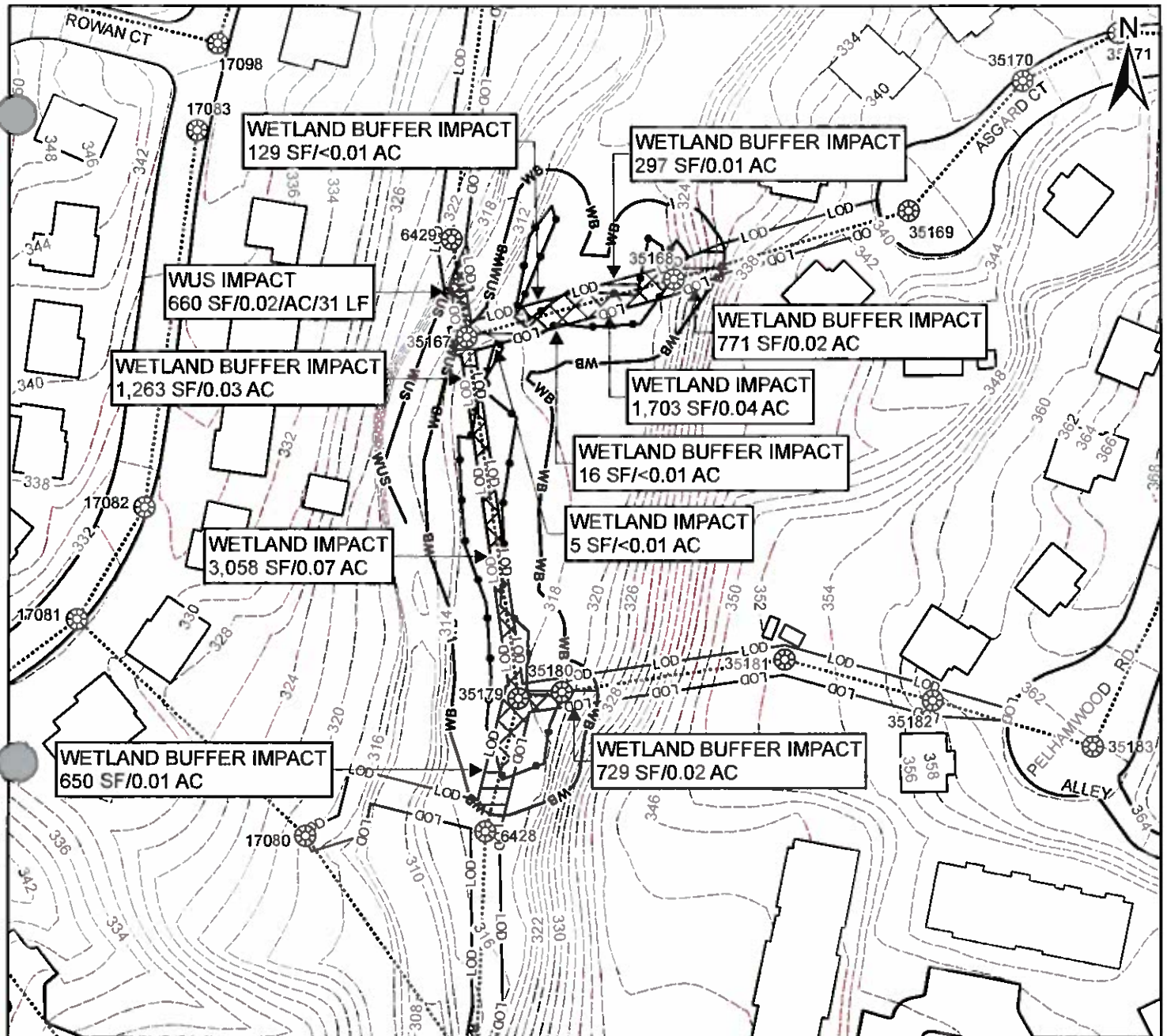
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O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
SHEET 2 OF 7 MARCH 2017



#### LEGEND

- WETLAND BOUNDARY
- WUS— WUS BOUNDARY
- WB— WETLAND BUFFER
- LOD— LIMITS OF DISTURBANCE
- 100-YEAR FLOODPLAIN
- SEWER PIPE
- 2-FOOT EXISTING CONTOUR
- MANHOLE

#### WETLAND IMPACTS

WETLAND IMPACTS = 4,766 SF/0.11 AC

#### WETLAND BUFFER IMPACTS

WETLAND BUFFER IMPACTS = 3,855 SF/0.09 AC

#### WATERS OF THE U.S. (WUS) IMPACTS

WUS IMPACTS = 660 SF/0.02 AC/31 LF

#### 100-YEAR FLOODPLAIN IMPACTS

FLOODPLAIN IMPACTS = N/A

#### SCALE:

1 INCH = 100 FEET

0 50 100 200 FEET

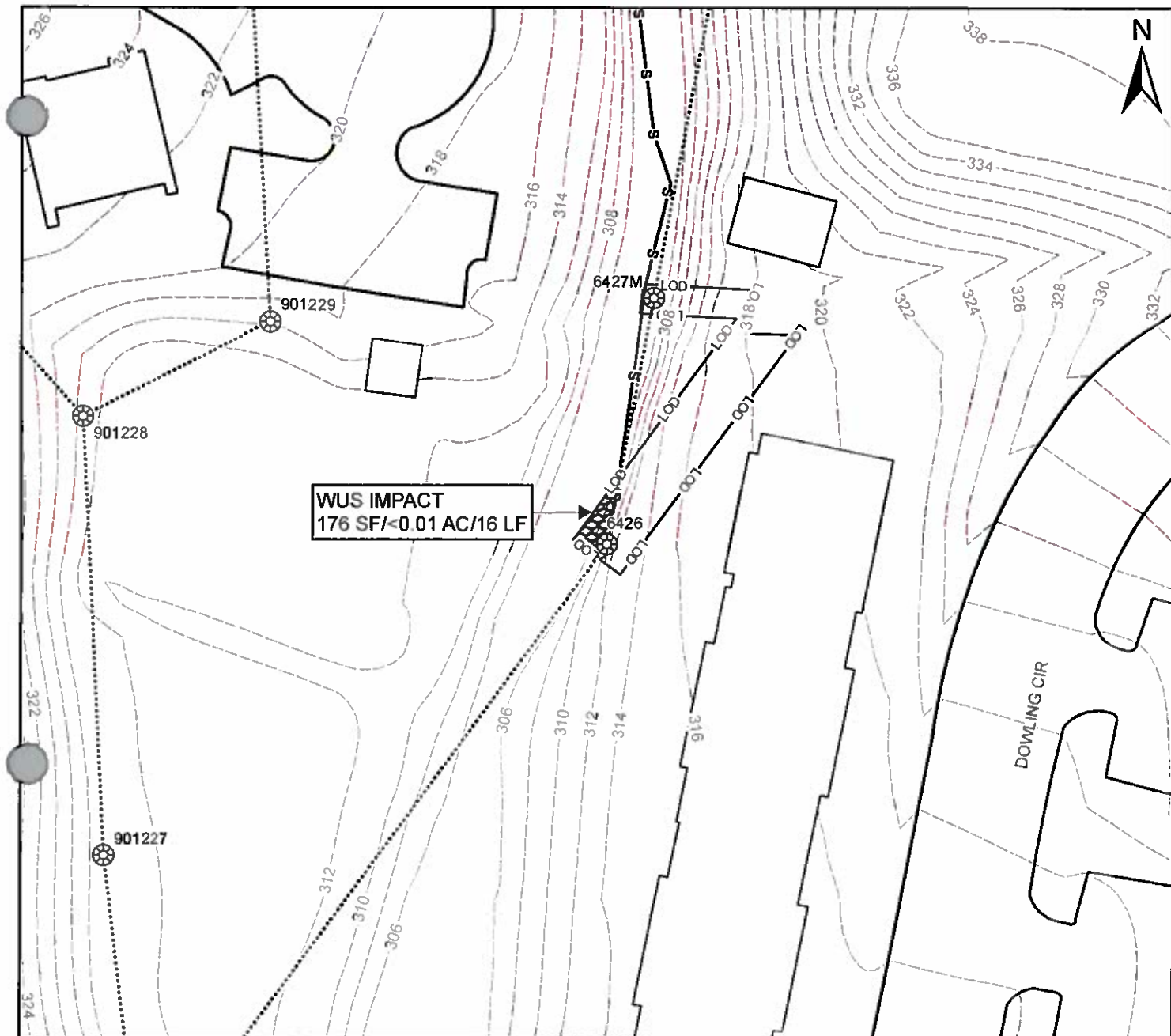


O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
SHEET 3 OF 7 MARCH 2017





#### LEGEND

- |                       |                     |                  |                             |
|-----------------------|---------------------|------------------|-----------------------------|
| —●— WETLAND BOUNDARY  | — WUS- WUS BOUNDARY | ⊗ MANHOLE        | — LOD LIMITS OF DISTURBANCE |
| — 100-YEAR FLOODPLAIN | — WB WETLAND BUFFER | ..... SEWER PIPE | --- 2-FOOT EXISTING CONTOUR |

#### WETLAND IMPACTS

WETLAND IMPACTS = N/A

#### WETLAND BUFFER IMPACTS

WETLAND BUFFER IMPACTS = N/A

#### WATERS OF THE U.S. (WUS) IMPACTS

WUS IMPACTS = 176 SF / <0.01 AC / 16 LF

#### 100-YEAR FLOODPLAIN IMPACTS

FLOODPLAIN IMPACTS = N/A

#### SCALE:

1 INCH = 50 FEET

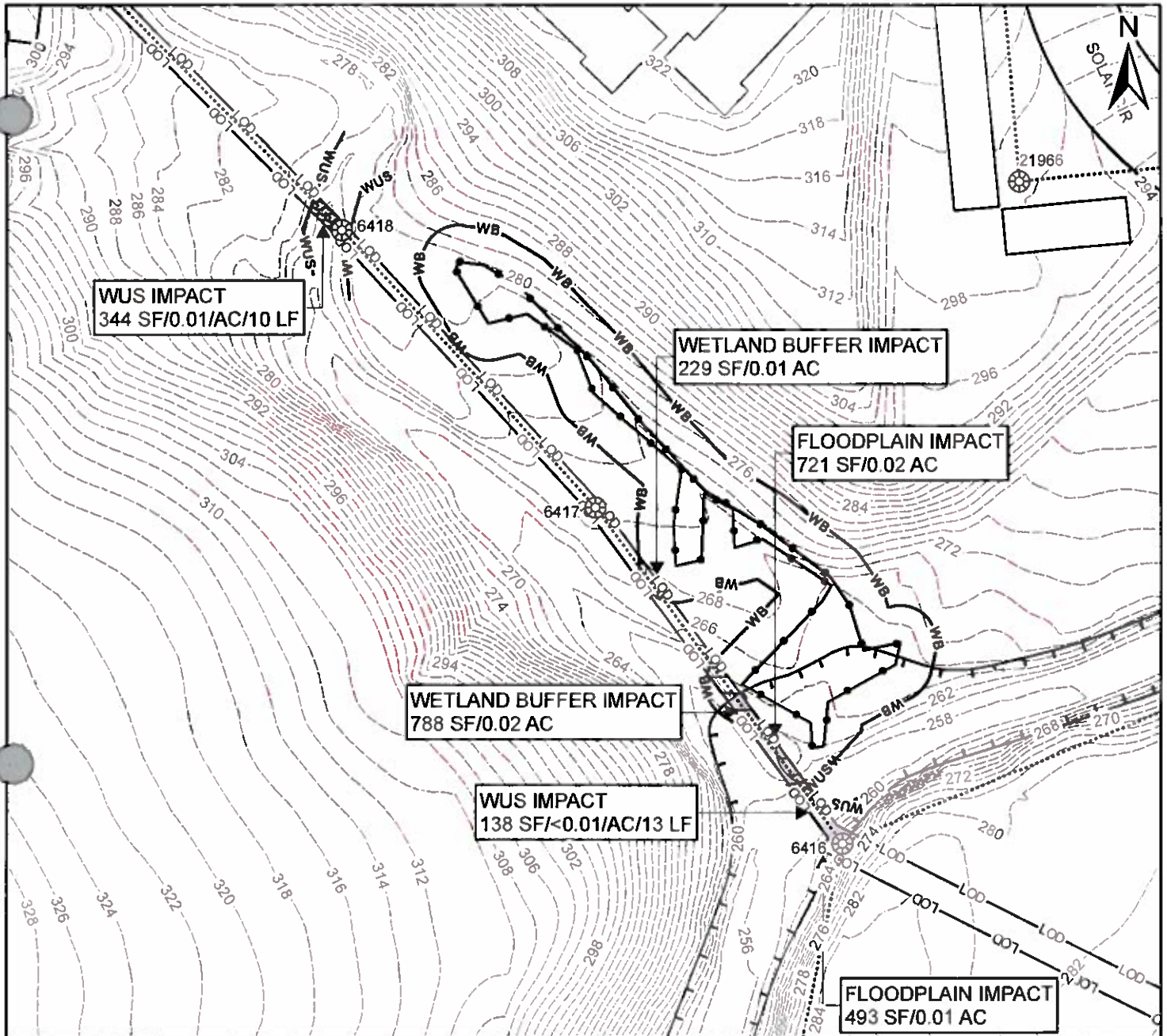
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O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
SHEET 4 OF 7 MARCH 2017



#### LEGEND

- |                       |                     |                  |                               |
|-----------------------|---------------------|------------------|-------------------------------|
| —●— WETLAND BOUNDARY  | —WUS— WUS BOUNDARY  | ⊗ MANHOLE        | — LOD LIMITS OF DISTURBANCE   |
| — 100-YEAR FLOODPLAIN | —WB— WETLAND BUFFER | ..... SEWER PIPE | - - - 2-FOOT EXISTING CONTOUR |

#### WETLAND IMPACTS

WETLAND IMPACTS = N/A

#### WETLAND BUFFER IMPACTS

WETLAND BUFFER IMPACTS = 1,017 SF/0.02 AC

#### WATERS OF THE U.S. (WUS) IMPACTS

WUS IMPACTS = 482 SF/0.01 AC/23 LF

#### 100-YEAR FLOODPLAIN IMPACTS

FLOODPLAIN IMPACTS = 1,214 SF/0.03 AC

#### SCALE:

1 INCH = 100 FEET

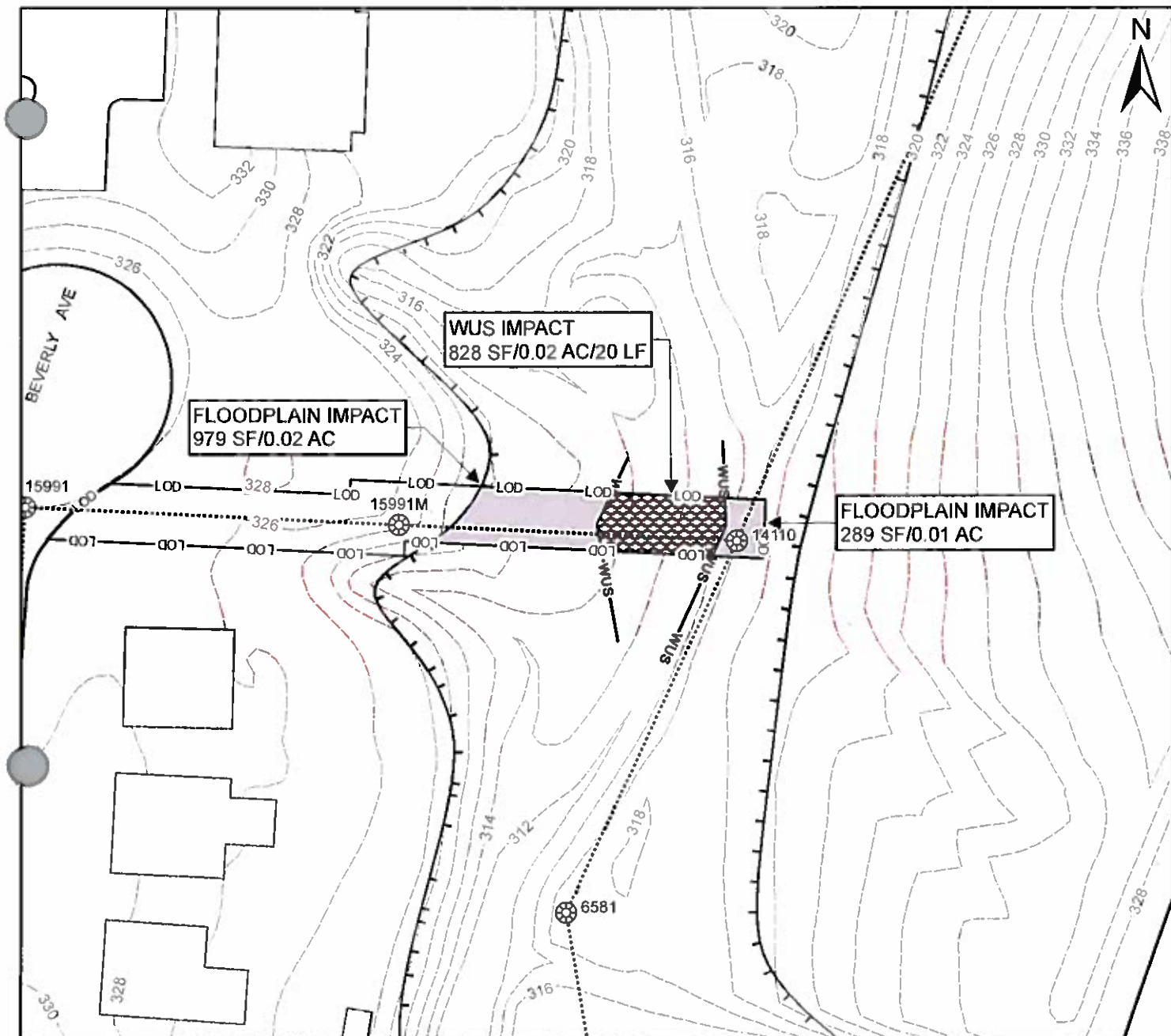
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O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
SHEET 5 OF 7 MARCH 2017



#### LEGEND

- |                       |                     |                  |                               |
|-----------------------|---------------------|------------------|-------------------------------|
| —●— WETLAND BOUNDARY  | — WUS- WUS BOUNDARY | ⊗ MANHOLE        | — LOD LIMITS OF DISTURBANCE   |
| — 100-YEAR FLOODPLAIN | — WB WETLAND BUFFER | ..... SEWER PIPE | - - - 2-FOOT EXISTING CONTOUR |

#### WETLAND IMPACTS

⊗ WETLAND IMPACTS = N/A

#### WETLAND BUFFER IMPACTS

□ WETLAND BUFFER IMPACTS = N/A

#### WATERS OF THE U.S. (WUS) IMPACTS

⊗ WUS IMPACTS = 828 SF/0.02 AC/20 LF

#### 100-YEAR FLOODPLAIN IMPACTS

□ FLOODPLAIN IMPACTS = 1,268 SF/0.03 AC

SCALE:

1 INCH = 50 FEET

0 25 50 100  
FEET

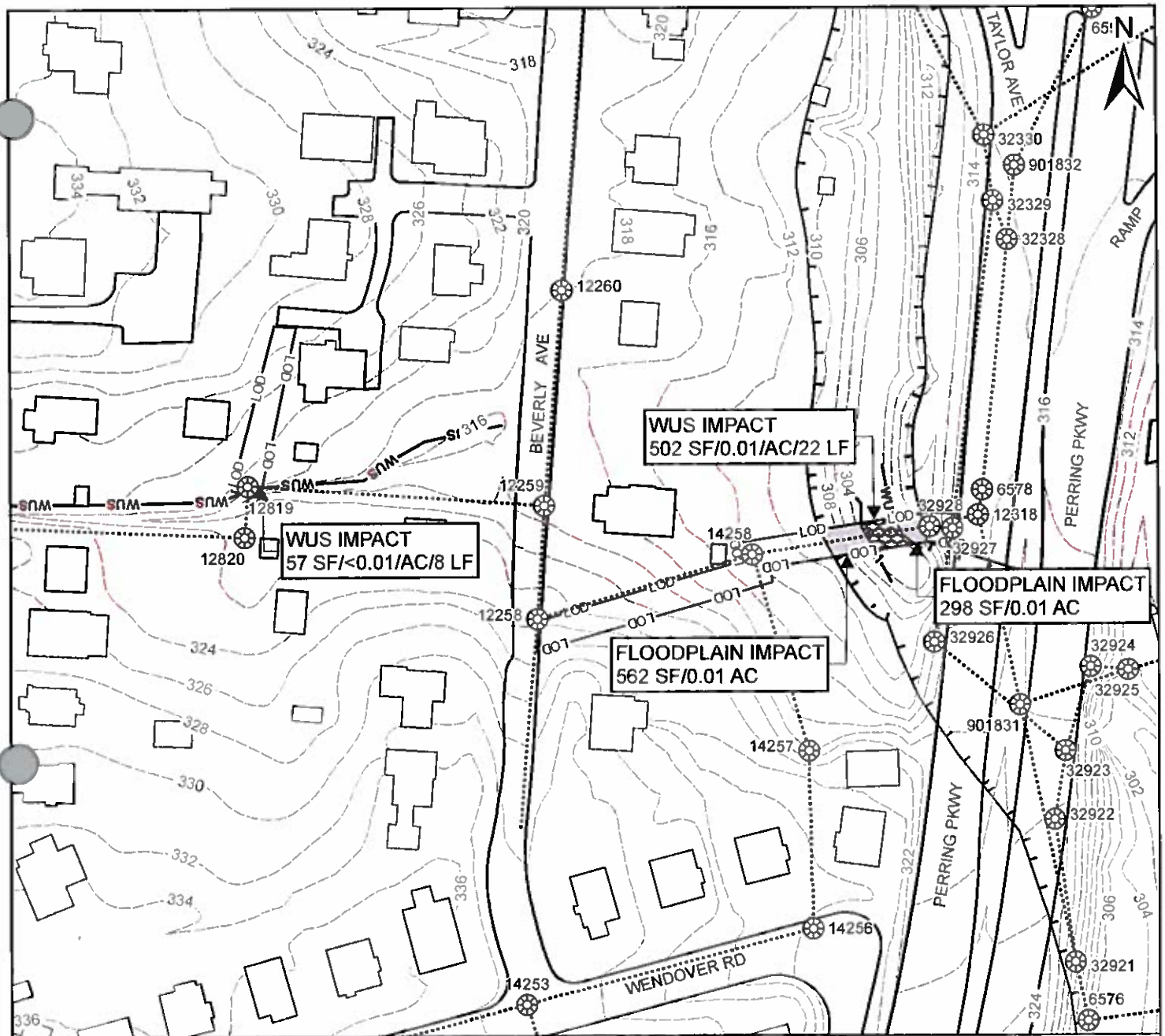


O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWERSHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
SHEET 6 OF 7 MARCH 2017





#### LEGEND

- |                       |                    |                  |                             |
|-----------------------|--------------------|------------------|-----------------------------|
| —●— WETLAND BOUNDARY  | —WUS— WUS BOUNDARY | ⊗ MANHOLE        | — LOD LIMITS OF DISTURBANCE |
| — 100-YEAR FLOODPLAIN | —WB WETLAND BUFFER | ..... SEWER PIPE | --- 2-FOOT EXISTING CONTOUR |

#### WETLAND IMPACTS

WETLAND IMPACTS = N/A

#### WETLAND BUFFER IMPACTS

WETLAND BUFFER IMPACTS = N/A

#### WATERS OF THE U.S. (WUS) IMPACTS

WUS IMPACTS = 559 SF / 0.01 AC / 30 LF

#### 100-YEAR FLOODPLAIN IMPACTS

FLOODPLAIN IMPACTS = 860 SF / 0.02 AC

#### SCALE:

1 INCH = 100 FEET

0 50 100 200 FEET



O'BRIEN & GERE ENGINEERS, INC.

SANITARY SEWER  
STRUCTURAL REHABILITATION  
HERRING RUN SEWER SHED - PHASE II

COUNTY: BALTIMORE  
APPLICATION BY: BALTIMORE COUNTY  
DEPT. OF PUBLIC WORKS  
SHEET 7 OF 7 MARCH 2017



DEPARTMENT OF THE ARMY  
BALTIMORE DISTRICT, CORPS OF ENGINEERS  
ATTN: REGULATORY BRANCH  
10 S. HOWARD STREET  
BALTIMORE, MD 21201

**IMPORTANT INFORMATION ABOUT YOUR PROJECT**

Corps Permit Tracking No.: 201760630 Date: May 9, 2017  
Permittee/Project Name: BA DPW / Herring Run Sewershed  
MDSPGP-5 Activity No.: A(c-1)

Dear Applicant:

The U. S. Army Corps of Engineers, Baltimore District, has determined that the proposed work meets the enclosed terms and conditions of the Maryland State Programmatic General Permit-5 (MDSPGP-5). A requisite of permit issuance requires that the applicant comply with any specific terms and conditions associated with the authorized project (conditions enclosed). This MDSPGP-5 verification is provided pursuant to Section 10 of the Rivers and Harbors Act of 1899 and/or Section 404 of the Clean Water Act. If any of the information contained in your application and/or plans is later found to be in error, the MDSPGP-5 authorization for your project may be modified, suspended, or revoked.

As a condition of the MDSPGP-5 authorization, you, the permittee, are required to complete and sign the enclosed Compliance Self-Certification Form regarding the completed work and any required mitigation. The signed form should be returned to the Regulatory Branch at the above address within 60 days following completion of the authorized work and any required mitigation.

Please be aware that the terms and conditions of this permit will continue to be binding on the new property owner(s) if structures or work authorized by this permit exist at the time of ownership transfer of the associated property. Although the construction period for work authorized by this MDSPGP-5 is finite, the permit itself, with its limitations, does not expire. To validate the transfer of this permit and the legal responsibility to comply with its terms and conditions, the transferee (new owner) must provide the Corps a mailing address and telephone number along with their signature and date in the space provided below and mail a copy to the above address.

Your MDSPGP-5 authorization is valid until September 30, 2021 unless the permit is modified, reissued, or revoked. You must remain informed of the changes to the MDSPGP-5. When changes to the MDSPGP-5 occur, a public notice announcing the changes will be issued. Be advised that you have 12 months from the effective date of the MDSPGP-5's expiration, modification or revocation to complete the work under the present terms and conditions provided you have commenced construction or are under contract to commence construction of the authorized work.

In order for this authorization to be valid, you must obtain all required Federal, State, and local permits.

*Beth E. Bachur*

Beth E. Bachur  
Acting Chief, Regulatory Branch

\_\_\_\_\_  
TRANSFeree SIGNATURE      DATE      AREA CODE / TELEPHONE NO.

\_\_\_\_\_  
PRINTED NAME      ADDRESS





DEPARTMENT OF THE ARMY  
BALTIMORE DISTRICT, CORPS OF ENGINEERS  
ATTN: REGULATORY BRANCH  
10 S. HOWARD STREET  
BALTIMORE, MD 21201

Effective October 1, 2016

201760630

Corps Permit No.

CENAB-OPR-MDSPGP-5 (MARYLAND STATE PROGRAMMATIC GENERAL PERMIT-5)

TO WHOM IT MAY CONCERN:

Upon recommendation of the Chief of Engineers, and under the provisions of Section 404 of the Clean Water Act, as amended, and Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403), the Secretary of the Army hereby authorizes the discharge of dredged or fill material or the placement of structures into Waters of the United States, including wetlands and navigable waters. These discharges and structures must comply with all the terms and conditions identified in this MDSPGP-5. It has been determined that the project qualifies for the MDSPGP-5. Accordingly, you are authorized to undertake the activity pursuant to:

1. Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403); and/or
2. Section 404 of the Clean Water Act (33 U.S.C. 1344).

You are authorized to perform work in accordance with the terms and conditions specified in Section VII of the MDSPGP-5 effective on October 1, 2016.

**VII. General Conditions:** To qualify for MDSPGP-5 authorization, the prospective permittee must comply with the following general conditions, as appropriate, in addition to any activity-specific impact limits and requirements identified in the Description of MDSPGP-5 Authorized Activities, and any case-specific special conditions imposed by the Corps.

**A. General Requirements:**

1. **Other Permits:** Authorization under the MDSPGP-5 does not obviate the need to obtain other Federal, State, or local authorizations required by law or to comply with all Federal, state or local laws.

2. **Geographic Jurisdiction:** This MDSPGP-5 will authorize work undertaken within the geographic limits of the State of Maryland under the regulatory jurisdiction of the Baltimore District.

3. **Applicability:** Applicability of the MDSPGP-5 must be reviewed with reference to the Corps definition of waters of the United States, including wetlands, and navigable waters of the United States. Applicants are responsible for delineating boundaries of all waters of the United States, including wetland boundaries. The identification and delineation of wetland boundaries must be accomplished in accordance with the current Federal manual for identifying jurisdictional wetlands and applicable supplemental guidance issued by the Corps of Engineers.

4. **Minimal Effects:** Projects authorized by the MDSPGP-5 must have no more than minimal individual and cumulative adverse environmental effects, as determined by the Baltimore District.

**5. Discretionary Authority:** Notwithstanding compliance with the terms and conditions of the MDSPGP-5, the Corps retains discretionary authority to require an alternate Corps permit review for any project under any categories of the MDSPGP-5 based on concerns for the aquatic environment or for any other public interest factor. This authority may be invoked on a case-by-case basis during the review process for Category B activities whenever the Corps determines that, based on the concerns stated above, the potential consequences of the proposed project warrant individual review. In some rare instances, the Corps may have concerns for the aquatic environment or for any other public interest factor pertaining to a specific proposed project, which has already received a case-specific verification as a Category A activity. In order to evaluate this project under an alternate Corps permit review, the verification must be suspended in accordance with Section VIII.E of the MDSPGP-5.

Whenever the Corps notifies an applicant that an alternate Corps permit may be required, authorization under the MDSPGP-5 is voided. No work may be conducted until the individual Corps permit is obtained, or until the Corps notifies the applicant that further review has demonstrated that the work may proceed under the MDSPGP-5.

**6. Single and Complete Projects:** The MDSPGP-5 must not be used for piecemeal work and must be applied to single and complete projects, including maintenance activities. For purposes of this MDSPGP-5, a single and complete project means the total project proposed or accomplished by one owner/developer or partnership or other association of owners/developers and which has independent utility. All components of a project, including all attendant features both temporary and permanent, must be reviewed together as constituting one single and complete project. The MDSPGP-5 must not be used for any activity or portion of a project (e.g., a pier or boat ramp), that is part of, or dependent on, an overall project (e.g., the dredging of a main navigation channel or a spur channel), for which an individual permit or some other alternate Corps permit is required. The same activity under the MDSPGP-5 cannot be used more than once for the same single and complete project.

**7. Use of Multiple MDSPGP-5 Activities:** More than one MDSPGP-5 activity may be used to authorize a single and complete project. However, the specific requirements, including all activity-specific requirements and impact thresholds, must be met for each MDSPGP-5 activity and the total extent of project impacts must not exceed the acreage and/or linear foot limit of the MDSPGP-5 activity with the highest specified acreage and/or linear foot limit. For example, if a road crossing is authorized under Category A of Section IV.B.1.(d)(1) with an associated nontidal bank stabilization authorized under Section IV.B.1.f.(4)(a), the maximum total impact limits to nontidal waters of the United States for the single and complete project may not exceed 10,000 square feet in total area and/or 500 linear feet in total length. The road crossing and nontidal bank stabilization activities must still meet all Category A activity-specific requirements and impact thresholds.

A single and complete project with multiple impacts, that may be eligible for authorization under a Category A and a Category B activity, requires an application submittal to the Corps and review under the MDSPGP-5 Category B verification procedures. All specific requirements, including the activity-specific requirements and impact thresholds of the Category A activity and the Category B activity must be met and the total extent of project impacts must not exceed to total acreage and/or linear foot limit of the MDSPGP-5 activity with the highest specified acreage and/or linear foot limit. For example, if a road crossing is authorized under Category A of Section IV.B.1.(d)(1) with an associated nontidal bank stabilization authorized under Section IV.B.f.(4)(b), the maximum total impact limits to waters of the United States for the single and

complete project may not exceed 1/2 acre (21,780 square feet) in total area and/or 2,000 linear feet in total length. The road crossing activity must meet the Category A activity-specific requirements and impact thresholds, and the nontidal bank stabilization activity must meet the Category B activity-specific requirements and impact thresholds.

**8. Permit On-Site:** The permittee must ensure that a copy of the MDSPGP-5 and the accompanying authorization letter are at the work site at all times. These copies must be made available to any regulatory representative upon request. Although the permittee may assign various aspects of the work to different contractors or sub-contractors, all contractors and sub-contractors must be expected to comply with all conditions of any general permit authorization.

**9. Authorized Activities in Navigable Waters Subject to Section 10 of the Rivers and Harbors Act of 1899:**

a. If future operations by the United States require removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work must cause unreasonable obstruction to the free navigation of the navigable water, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim must be made against the United States on account of any such removal or alteration.

b. The permittee acknowledges the possibility that the structure permitted herein may be subject to damage by wave wash from passing vessels and/or ice flows within the waterway. The issuance of this permit does not relieve the permittee from taking all proper steps to ensure the integrity of the structure permitted herein and the safety of vessels moored thereto from damage by wave wash and/or ice flows, and the permittee must not hold the United States liable for such damage.

c. The permittee must install and maintain, at his/her expense any safety lights, markers, and/or signals prescribed by the USCG, through regulations or otherwise, on the authorized facilities and/or structures. The permittee must contact the Commander (AOWW), Fifth Coast Guard District, Federal Building, 431 Crawford Street, Portsmouth, Virginia, 23704, to ascertain the need for obstruction lights. Prior to commencing the construction or installation of an authorized structure in navigable waters of the United States, the permittee must submit a "Private Aids to Navigation Application" to the Commander of the USCG.

d. The permittee must provide location coordinates of the authorized structures, including minimum depth and other pertinent information to the USCG and request that a Local Notice to Mariners is issued regarding the authorized work.

**10. For Aerial Transmission Lines Across Navigable Waters:** The following minimum clearances are required for aerial electric power transmission lines crossing navigable waters of the United States. These clearances are related to the clearances over the navigable channel provided by existing fixed bridges, or the clearances which would be required by the USCG for new fixed bridges, in the vicinity of the proposed aerial transmission line. These clearances are based on the low point of the line under conditions producing the greatest sag, taking into consideration temperature, load, wind, length of span, and type of supports as outlined in the National Electrical Safety Code:

NOMINAL SYSTEM VOLTAGE (kV)	Minimum additional clearance (ft.) above clearance required for bridges.
115 and below	20
138	22
161	24
230	26
350	30
500	35
700	42
750-765	45

a. Clearances for communication lines, stream gauging cables, ferry cables, and other aerial crossings must be a minimum of ten feet above clearances required for bridges, unless specifically authorized otherwise by the District Engineer.

b. Corps Regulation ER 1110-2-4401 prescribes minimum vertical clearances for power communication lines over Corps lake projects. In instances where both the National Electrical Safety Code requirements and ER 1110-2-4401 apply, the greater minimum clearance is required.

#### **B. National Concern:**

1. **Historic Properties:** Any activity authorized by the MDSPGP-5 must comply with Section 106 of the National Historic Preservation Act. Maryland Department of the Environment, in cooperation with the Maryland Historic Trust, must conduct an initial review and notify the Corps if any archaeological or other cultural resources are in the vicinity of the project. The Corps may require applicants to perform a survey of archaeological and historical resources in the project area. The Corps must determine whether National Historic Preservation Act Section 106 consultation is required. The applicant must notify the Corps if they have knowledge that the activity may affect any historic properties listed or eligible for listing, or that the applicant has reason to believe may be eligible for listing on the National Register of Historic Places. Upon discovery of any previously unknown historic, cultural, or archeological resources or remains while accomplishing the activity authorized by this permit, the permittee must immediately notify the Corps of what has been found, and avoid construction activities that may affect the resources or remains until the required coordination has been completed. The Corps will initiate the Federal, Tribal, and state coordination required to determine if the items or remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places. The permittee must not begin or continue work until notified by the District Engineer that the requirements of the National Historic Preservation Act have been satisfied and that the activity may proceed. Information on the location and existence of historical resources can be obtained from the MHT, Office of Preservation Services, and the National Register of Historic Places. The Corps will conclude all tribal coordination in accordance with the District's tribal coordination procedures prior to verifying an activity authorized by MDSPGP-5.

2. **Tribal Rights:** No activity or its operation may impair reserved tribal rights, including but not limited to, reserved water rights and treaty fishing and hunting rights.

3. **National Lands:** Activities authorized by the MDSPGP-5 must not impinge upon the value of any Federal land, including but not limited to, National Wildlife Refuges, National Forests, National Parks, National Marine Sanctuaries, or any area administered by the FWS, U.S. Forest Service, or National Park Service (e.g., Assateague Island National Seashore).

4. **Endangered Species:** The MDSPGP-5 does not authorize any activity that may directly or indirectly affect a threatened or endangered species or a species proposed for such designation, as identified under the Federal ESA, or which may directly or indirectly destroy or adversely modify the critical habitat of such species unless and until appropriate coordination with the applicable resource agency(s) is complete and all such issues are resolved in accordance with the applicable regulations and procedures. Prior to application submittal, applicants must conduct an initial review for ESA resources, including FWS and/or NMFS species or critical habitat, utilizing the appropriate website(s) provided below. A complete permit application must contain evidence that the applicant has already contacted and received a response from the FWS and/or NMFS concerning any Federally listed or proposed threatened and endangered species and designated or proposed critical habitat that may be affected by the proposed activity. For FWS ESA species, an applicant must use the FWS Chesapeake Bay Field Office Project Review website (FWS website tool) provided below to determine if any Federally listed species are present in the proposed project area. A complete application must contain one of the following: *If species or designated critical habitat are determined to be present in the proposed project area using the FWS website tool:* A FWS Official Species List tailored for the proposed project area must be obtained and submitted with the application. An Official Species List is considered valid for 90 days. *If no listed species or designated critical habitat are determined to be present in the proposed project area using the FWS website tool:* A report that includes an online self-certification letter, map of action area, and Official Species List must be obtained and submitted with the application. For NMFS species and/or critical habitat, an applicant must use the NOAA Fisheries Species Information and Maps website (NMFS website tool) provided below to determine if any Federally listed species or critical habitat are present in the proposed project area. A complete application must include mapping depicting the project location in relation to any Federally listed species and/or critical habitat. For assistance please contact Mr. Brian Hopper of NMFS Fisheries at 410.573.4592. MDE must conduct an initial review and notify the Corps and FWS or NMFS if any Federally listed species or critical habitat is likely to be in the vicinity of the project. MDE, in cooperation with MD DNR, must conduct an initial review and notify the Corps and FWS if any Federally listed species or critical habitat is likely to be in the vicinity of the project. The Corps must determine if consultation with FWS or NMFS is required under Section 7 of the ESA. If consultation is required, the applicant, after notification, must not begin or continue work until notified by the Corps that the requirements of the ESA have been satisfied and that the activity is eligible for authorization. Information on the location of threatened and endangered species and their critical habitat can be obtained from the offices of the FWS and NMFS or their web pages at: <https://www.greateratlantic.fisheries.noaa.gov/protected/section7/guidance/maps/index.html> and, <http://www.fws.gov/chesapeakebay/EndSppWeb/ProjectReview/Index.html> respectively.

**National Marine Fisheries Service – Endangered Species Act Requirements:**

a. **Interactions with National Marine Fisheries Service Federally Threatened or Endangered Species:** Any interaction between a sea turtle or any species listed now or in the future under Federal law as a threatened or endangered species ("listed species") (e.g., North

Atlantic right whale, humpback whale, shortnose sturgeon) and the vessels associated with the project must be reported to the NMFS as follows: If the animal appears alive and uninjured (i.e., breathing normally, no visible wounds, movement uninhibited), the permittee or its representative must report the incident to the NMFS Northeast Region Marine Mammal and Sea Turtle Stranding and Entanglement Hotline at (866) 755-6622 within 24 hours of returning from the trip on which they made the discovery. If the animal requires assistance, the call to the hotline must be made immediately. If the animal appears to be injured (i.e. bleeding, gasping for air, etc.) or dead, the permittee or its representative must also immediately call the hotline so the appropriate rehabilitation or stranding network representative can be contacted. The applicant must also notify the Corps of all correspondence and interaction with the NMFS within two calendar days. Additional information about any Federally threatened or endangered species may be obtained from the attached fact sheet or online at: [http://www.nero.noaa.gov/prot\\_res/stranding/SpeciesOverview.html](http://www.nero.noaa.gov/prot_res/stranding/SpeciesOverview.html) and at: [http://www.nero.noaa.gov/prot\\_res/esp/](http://www.nero.noaa.gov/prot_res/esp/). An interaction is defined as an entanglement or capture of a listed species or a strike/direct contact between vessels or equipment used for the project and a listed species.

b. **Vessel Buffer:** When listed species are sighted, vessels must attempt to maintain a distance of 50 yards (150 feet) or greater between the animal and the vessel whenever possible. State and Federal regulations prohibit approaching a right whale within a 500 yard (1,500 foot) buffer zone. Any vessel finding itself within the 500 yard (1,500 foot) buffer zone created by a surfacing right whale must depart immediately at a safe, slow speed. If other listed species are detected, vessels will reduce their speeds to 10 knots or to the maximum extent practicable to ensure human safety. If listed species are sighted off of a moving dredge, intentional approaches within 100 yards (300 feet) of the animal must be avoided. Vessels must reduce speeds to 4 knots or the lowest speed practicable to ensure human safety. Any interactions must be reported to the NMFS.

**c. Best Management Practices Applicable to Category A and Category B Activities within Tidal Waters and Wetlands:**

i. **Pile Driving for Category A Activities:** For the protection of listed species, pile driving methods must maintain noise level thresholds not to exceed 150 db re 1  $\mu$ Pa RMS or 206 dB peak re 1 $\mu$ Pa and must meet one of the following conditions:

- (1) Plastic or concrete piles must be less than 12 inches when a cushioned impact hammer or vibratory hammer is utilized for installation.
- (2) Timber piles must be 10 inches or less when a vibratory hammer is utilized for installation.
- (3) Vinyl or timber sheet piles must be 24 inches or less in width, as measured from the outer edge of corrugation to the inner edge of corrugation, when a cushioned impact hammer or vibratory hammer is used.
- (4) Pile driving activities must be located within freshwater tributaries or within tidal or nontidal wetlands.

(5) Piles of any size/type with any hammer method must be installed behind diversion structures or in the dry when the tide is out in the intertidal zone.

(6) Piles of any size/type with any hammer method must be installed between November 30 and March 15.

**(Note:** Any pile driving activity that does not meet one of the conditions above must be reviewed by the Corps as a Category B activity or an alternate Corps permit review process, as appropriate.

ii. **Pile Driving for Category A and Category B Activities:** For Category A and Category B activities, pile driving must be initiated with a soft start each day of pile driving, building up power slowly from a low energy start-up over a 20 minute period to allow for fish and other wildlife to leave the area.

iii. **Sediment Disturbing Activities Time-of-Year Restriction:** Sediment disturbing activities, which includes pile driving activities, are prohibited during the period April 1 through June 30 within all tidal waters of the Chesapeake Bay in Maryland and its tidal tributaries with salinity levels <6 ppt for the protection of shortnose sturgeon during early life stages in these waters.

5. **Essential Fish Habitat (EFH) and Fish and Wildlife Coordination Act:** Section 305(b)(2) of the Magnuson-Stevens Fishery Conservation and Management Act requires an EFH consultation with the NMFS for any action or proposed action authorized, funded, or undertaken by a Federal agency that may adversely affect EFH. Essential Fish Habitat has been defined by Congress as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." The designation and conservation of EFH seeks to minimize adverse effects on habitat caused by fishing and non-fishing activities. NMFS has determined that many of the MDSPGP-5 Category A activities are eligible for EFH general or programmatic concurrence and require no further EFH consultation. National Marine Fisheries Service, in consultation with the District, has determined that individual EFH consultation is needed for some projects potentially eligible for authorization under Category A of the MDSPGP-5 that may adversely affect EFH. The Corps will coordinate with NMFS as part of the Category B review procedures. EFH conservation recommendations made by NMFS will normally be included as a permit requirement by the Corps. If the EFH coordination and consultation requirements cannot be resolved under the MDSPGP-5 process, an alternate Corps permit review process is required for the project.

6. **Wild and Scenic Rivers:** No activity is authorized under the MDSPGP-5 that occurs in a component of the National Wild and Scenic River System, including rivers officially designated by Congress as study rivers for possible inclusion in the system, while such rivers are in an official study status, unless the appropriate Federal agency, with direct management responsibility for the river, has determined in writing that the proposed activity will not adversely affect any National Wild and Scenic River, including study rivers. Information on Wild and Scenic Rivers may be obtained from the appropriate Federal land management agency in the area (e.g., National Park Service, U. S. Forest Service, Bureau of Land Management, or FWS).

7. **Federally Authorized Civil Works Projects:**



a. **Federal Navigation Projects:** The MDSPGP-5 does not authorize interference with any existing or proposed Federal navigation projects. The permittee understands and agrees that, if future operations by the United States require the removal, relocation, or other alteration of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work must cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the United States. No claim must be made against the United States on account of any such removal or alteration. (See VII.A.9.a.)

b. **Federal Navigation Channel Setbacks:** All activities must comply with the Baltimore District Minimum Setback Guidance for Structures Along Federally Authorized Channels. Please see the Baltimore District's Regulatory webpage to view this guidance: <http://www.nab.usace.army.mil/Missions/CivilWorks/NavMaps.aspx>

c. **Other Federally Authorized Civil Works Properties and/or Projects (e.g., flood control, dams, and reservoirs):** The MDSPGP-5 does not authorize interference to any proposed or existing Federally authorized civil works project.

d. **Activities Affecting Structures or Works Built by the United States:** Engineer Circular (EC 1165-2-216) provides policy and procedural guidance for processing requests by private, public, tribal, or other federal entities, to make alterations to, or temporarily or permanently occupy or use, any US Army Corps of Engineers (USACE) federally authorized civil works project, pursuant to 33 USC 408 (Section 408). Proposed alterations must not be injurious to the public interest or affect the USACE project's ability to meet its authorized purpose. The decision on a Department of the Army permit application pursuant to Section 10/404/103 cannot and will not be rendered prior to the decision on the Section 408 request. An activity that requires Section 408 permission is not authorized by the MDSPGP-5 until the Corps issues the Section 408 permission to alter, occupy, or use the USACE project, and the Corps issues a written MDSPGP-5 verification.

8. **Federal Liability:** In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project, or uses thereof, as a result of other permitted or unpermitted activities or from natural causes;

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest;

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit;

d. Design or construction deficiencies associated with the permitted work;

e. Damage claims associated with any future modification, suspension or revocation of the MDSPGP-5 or any specific MDSPGP-5 verification.

9. **Navigation:** Projects authorized under the MDSPGP-5 must not cause interference with navigation, and no attempt must be made by the permittee to prevent the full



and free use by the public of all navigable waters at or adjacent to projects authorized under the MDSPGP-5. Nothing in the MDSPGP-5 must in any way restrict the District Engineer, U.S. Army Engineer District, Baltimore, from exercising his legal authority to protect the public interest in navigation or from exercising his authority under the Navigation Servitude of the United States. (See VII.A.9.)

**10. Fills Within 100-Year Floodplain:** The activity must comply with applicable Federal Emergency Management Agency approved State or local floodplain management requirements.

**11. Safety of Impoundment Structures:** To ensure that all impoundment structures are safely designed, the Corps may require non-Federal applicants to demonstrate that the structures comply with established State dam safety criteria or have been designed by qualified persons. The Corps may also require documentation that the design has been independently reviewed by similarly qualified persons, and appropriate modifications made to ensure safety.

**12. Migratory Birds and Bald and Golden Eagles:** The permittee is responsible for obtaining any "take" permits required under the FWS's regulations governing compliance with the Migratory Bird Treaty Act or the Bald and Golden Eagle Protection Act. The permittee should contact the appropriate local office of the FWS to determine if such "take" permits are required for a particular activity.

**13. Environmental Justice:** Activities authorized under this MDPSGP-5 must comply with Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations."

**14. Hazardous Wildlife Attractants On or Near Airports:** Permittees must consider the activity's effects on aviation safety and design a project so it does not create a wildlife hazard. All authorized activities that may attract hazardous wildlife must be consistent with the siting criteria and land use practice recommendations stated in Section 1-3 of the Federal Aviation Administration Advisory Circular 150/5200-33. This document can be found at: [http://www.faa.gov/documentLibrary/media/advisory\\_circular/150-5200-33B/150\\_5200\\_33b.pdf](http://www.faa.gov/documentLibrary/media/advisory_circular/150-5200-33B/150_5200_33b.pdf)

**15. Water Quality Certification:** Permittees must satisfy any conditions imposed by the State of Maryland and EPA, where applicable, in their Water Quality Certification for the MDSPGP-5 pursuant to Section 401 of the Clean Water Act. On September 13, 2016, the Maryland Department of the Environment issued WQC for the MDSPGP-5 subject to the condition that the applicant obtains all necessary State permits and approvals. The Corps or State may require additional water quality management measures to ensure that the authorized activity does not result in more than minimal degradation of water quality.

**16. Coastal Zone Management Consistency (CZM):** The Corps determined that all activities authorized under the MDSPGP-5 will be carried out in a manner consistent with the Coastal Zone Management Program pursuant to Section 307 of the Federal Coastal Zone Management Program of 1972, as amended. On September 13, 2016, the Maryland Department of the Environment concurred with the Corps' determination provided that the applicant obtains all necessary State permits and approvals. Permittees must satisfy any additional conditions imposed by the State of Maryland in their CZM concurrences for the MDSPGP-5.

17. **Coastal Barrier Resources Act (CBRA):** Federal funding for certain activities requiring Corps authorization may be prohibited within the established Coastal Barrier Resources System, which is a defined set of coastal barrier units located along the Atlantic, Gulf of Mexico, Great Lakes, U.S. Virgin Islands, and Puerto Rico coasts. Activities authorized under the MDSPGP-5 must comply with the CBRA. More detailed information can be found at: <http://www.fws.gov/cbra>.

### **C. Minimization of Environmental Impacts:**

1. **Avoidance and Minimization:** Discharges of dredged or fill material into waters of the United States and adverse impacts of such discharges on the aquatic ecosystem, both temporary and permanent, must be avoided and minimized to the maximum extent practicable at the project site (i.e., on-site). Mitigation in all its forms (avoiding, minimizing, rectifying, reducing or compensating for resource losses) will be required to the extent necessary to ensure that the adverse effects to the aquatic environment are minimal.

2. **Mitigation Standards:** The Corps will consider the following factors when determining appropriate and practicable mitigation necessary to ensure that the adverse effects on the aquatic environment are minimal and that the project is eligible for authorization under the MDSPGP-5:

a. **Wetlands:** Compensatory wetland mitigation at a minimum one-for-one ratio will be required for all permanent tidal or nontidal wetland losses that exceed 5,000 square feet and that require an application submittal for Corps authorization, unless the Corps determines in writing that either some type of mitigation or ratio of mitigation other than a one-to-one ratio would be more appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. For wetland losses of 5,000 square feet or less that require an application submittal for Corps authorization, the Corps may determine on a case-by-case basis that compensatory mitigation is required to ensure that the activity results in minimal adverse effects on the aquatic environment. Generally, the minimum required wetland mitigation ratios will be as follows: 2:1 for forested and scrub-shrub wetlands; 1:1 for herbaceous emergent wetlands, and 1:1 for permanent conversion of forested wetlands to herbaceous emergent wetlands. Maintenance of previously authorized activities typically does not require mitigation. Since the likelihood of success is greater and the impacts to potentially valuable uplands are reduced, wetland restoration should be the first compensatory mitigation option considered.

b. **Streams and Other Open Waters:** Compensatory mitigation at a minimum one-for-one ratio will be required for permanent losses of streams or other open waters that exceed 200 linear feet and that require an application submittal for Corps authorization, unless the Corps determines in writing that either some other type of mitigation would be more appropriate or the adverse effects of the proposed activity are minimal, and provides a project-specific waiver of this requirement. Compensatory mitigation, such as stream rehabilitation, enhancement (including enhancement of riparian buffers), or preservation, focusing on functional replacement, may be required to ensure that the activity results in minimal adverse effects on the aquatic environment. In addition, compensatory mitigation plans for losses of streams and other open waters will normally include a requirement for the restoration or establishment, maintenance, and site protection of riparian areas next to open waters. Riparian buffer areas should consist of native species. The width of the required riparian area will address documented water quality or aquatic habitat impact concerns. Typically, the riparian

area will not be less than 25 feet wide on each side of the stream, but the Corps may require wider riparian areas to address documented water quality or habitat loss concerns. Furthermore, the Corps may determine that restoration or establishment of a riparian area along a single bank or shoreline is sufficient when it is not possible to establish a riparian area on both sides of a stream, or if the waterbody is a lake or coastal waters.

c. All compensatory mitigation projects provided to offset losses of aquatic resources must comply with the applicable provisions of 33 CFR Part 332.

d. The applicant is responsible for proposing an appropriate compensatory mitigation option if compensatory mitigation is necessary to ensure that the activity results in minimal adverse effects on the aquatic environment. Applicants may propose the use of mitigation banks, in-lieu-fee programs, or separate permittee-responsible mitigation.

e. When permittee-responsible mitigation is the proposed compensatory mitigation option, the applicant is responsible for submitting a compensatory mitigation plan. A conceptual or detailed mitigation plan may be used by the Corps to make the decision on the MDSPGP-5 verification request, but a final mitigation plan that addresses the applicable requirements of 33 CFR 332.4(c)(2) – (14) must be approved by the Corps prior to the commencement of work in waters of the United States. The special conditions of the MDSPGP-5 verification must clearly indicate the party or parties responsible for the implementation, performance, and, if required, the long-term management of the permittee-responsible compensatory mitigation project.

f. When mitigation bank or in-lieu fee program credits are the proposed option, the mitigation plan only needs to address the baseline conditions at the impact site and the number and resource type of credits to be provided. The special conditions of the MDSPGP-5 verification must either identify the specific mitigation bank or in-lieu fee program, or state that the specific mitigation bank or in-lieu fee program used to provide the required compensatory mitigation must be approved by the Corps before the credits are secured and prior to the commencement of the work in waters of the United States.

g. For losses of marine or estuarine resources, permittee-responsible compensatory mitigation may be environmentally preferable if there are no mitigation banks or in-lieu fee programs in the area that have marine or estuarine credits available for sale or transfer to the permittee.

h. Compensatory mitigation will not be used to increase the impact thresholds allowed by the acreage limits of the MDSPGP-5. For example, if an activity has an acreage limit of ½ acre, it cannot be used to authorize any project resulting in temporary and permanent impacts greater than ½ acre of waters of the United States, even if compensatory mitigation is provided that replaces or restores some of the impacted waters. However, compensatory mitigation can and should be used, as necessary, to ensure that a project already meeting the terms and conditions, including the acreage limits, also satisfies the minimal impact requirement associated with the MDSPGP-5.

3. **Work in Wetlands:** Heavy equipment working in wetlands must be avoided if possible and, if required, soil and vegetation disturbance must be minimized by using techniques such as timber mats, geotextile fabric, and vehicles with low-pressure tires. Disturbed areas in wetlands must be restored to preconstruction contours and elevations upon completion of the work.

**4. Temporary Fill and Mats:** Temporary fill and the use of mats are both considered a discharge of fill material and must be included in the quantification of impact area authorized by the MDSPGP-5. Temporary fill (e.g., access roads, cofferdams) in waters and wetlands authorized by the MDSPGP-5 must be properly stabilized during use to prevent erosion. Temporary fill in wetlands must be placed on geotextile fabric laid on the existing wetland grade. Upon completion of the work, all temporary fills must be disposed of at an upland site, suitably contained to prevent erosion and transport to a waterway or wetland. Temporary fill areas must be restored to their original, pre-construction contours and revegetated with native wetland species.

**5. Erosion and Sediment Control:** Adequate erosion and sediment control measures, practices, and devices, such as turbidity curtains in tidal waters, vegetated filter strips, geotextile silt fences, phased construction, or other devices or methods, must be used to reduce erosion and retain sediment on-site during and after construction. These devices and methods must be capable of (a) preventing erosion, (b) collecting sediment and suspended and floating materials, and (c) filtering fine sediment. Erosion and sediment control devices must be removed when the work is complete and the site has been successfully stabilized. The sediment collected by these devices must be removed and placed at an upland location, in a manner that will prevent its later erosion into a waterway or wetland. All exposed soil and other fills must be permanently stabilized at the earliest practicable date. In-stream work must be conducted "in the dry" whenever practicable. This should be accomplished using stream diversion devices, other than earthen or stone cofferdams. In addition, work in waters of the United States should be performed during periods of low-flow or no-flow, whenever practicable.

**6. Aquatic Life Movements:** No activity may substantially disrupt the necessary life-cycle movements of those species of aquatic life indigenous to the waterbody, including those species that normally migrate through, or spawn/nursery within the area (e.g., anadromous/catadromous fish); unless the activity's primary purpose is to impound water. Culverts placed in streams must be installed to maintain low flow conditions. A low flow channel must be maintained through any discharges placed for armoring across the channel so as to not impede flow in the waterway and/or not to block or impede the movements of anadromous, estuarine, and resident fish. Permanent culverts or pipes placed in streams must be depressed in accordance with the State of Maryland regulations. If depression of the culvert is not practicable, the applicant must submit a narrative, along with their application, documenting measures evaluated to minimize disruption of the movement of aquatic life, as well as specific documentation concerning site conditions and limitations on depressing the culvert, cost, and engineering factors that prohibit depressing the pipe/culvert. Options that need to be considered include the use of a bridge, bottomless pipe, partial depression, or other measures to provide for the movement of aquatic organisms. The documentation must also include photographs documenting site conditions. The applicant may find it helpful to contact their regional fishery agency for recommendations about the measures to be taken to allow for fish passage.

**7. Water Crossings:**

a. All temporary and permanent crossings of waterbodies must be suitably bridged, culverted, or otherwise constructed to withstand and to prevent the restriction of high flows and tidal flows; to maintain existing low flows; and to prevent the obstruction of movement by aquatic life indigenous to the water body, including anadromous, estuarine, and resident fish species.

b. All water crossings (e.g., utility lines and road crossings) must be constructed roughly perpendicular to waters of the United States, including streams and adjacent wetlands, except for instances where the existing on site conditions would require a diagonal crossing of the waterway. Where a utility line or access road is constructed parallel to a stream corridor, an undisturbed buffer must be maintained between the utility line/access road and the waterway to avoid or minimize potential future impacts to waters of the United States. These potential impacts would include such issues as sewer line leaks or failures, future stream channel meandering, stream bank instability and failure, and right-of-way maintenance.

c. Water crossings must be constructed "in the dry" whenever practicable. This should be accomplished by using stream diversion devices other than earthen or stone cofferdams.

d. Equipment must cross streams only at suitably constructed permanent or temporary crossings.

e. Temporary structures and fills must be removed and the area restored to its original contours and elevations, or to the conditions specified in the approved plans. The temporary structures and the areas of fill associated with these structures must be included in the total waterway/wetlands impacts.

**8. Discharge of Pollutants:** All activities that are authorized under the MDSPGP-5 and that involve any discharge or relocation of pollutants into waters of the United States must be consistent with applicable water quality standards, effluent limitations, standards of performance, prohibitions, and pretreatment standards and management practices established pursuant to the CWA (33 U.S.C. 1251 et. Seq.), and applicable State and local laws and regulations. No discharge of dredged or fill material in association with this authorization may consist of unsuitable material such as trash, debris, car bodies, asphalt, etc.

**9. Spawning Areas:** Activities, including structures and work in navigable waters of the United States or discharges of dredged or fill materials in fish and shellfish spawning or nursery areas during spawning seasons, must be avoided. Impacts to these areas must be avoided or minimized to the maximum extent practicable during all other times of year. Activities that result in the physical destruction (e.g., through excavation, dredging, mining, fill, or significant downstream sedimentation by substantial turbidity) of an important spawning/nursery area (as determined by National Marine Fisheries Service and/or FWS) are not authorized by this MDSPGP-5.

**10. Waterfowl Breeding and Wintering Areas:** Discharges into breeding and wintering areas for migratory waterfowl must be avoided to the maximum extent practicable.

**11. Environmental Values:** The permittee must make every reasonable effort to construct or operate the work authorized under the MDSPGP-5 in a manner that maintains as many environmental values as practicable, and that avoids or minimizes any adverse impacts on existing fish, wildlife, and natural environmental values.

**12. Management of Water Flows:** To the maximum extent practicable, the pre-construction course, condition, capacity, and location of open waters must be maintained for each activity, including stream channelization and storm water management activities. The activity must be constructed to withstand expected high flows. The activity must not restrict or impede the passage of normal or high flows. The activity may alter the pre-construction course,

condition, capacity, and location of open waters if it benefits the aquatic environment (e.g., stream restoration or relocation activities).

**13. Water Supply Intakes:** No discharge of dredged or fill material may occur in the proximity of a public water supply intake.

**D. Procedural Conditions:**

**1. Inspections:** The permittee must permit the District Engineer or his authorized representative(s) to make periodic inspections at any time deemed necessary to ensure that the work is being performed in accordance with the terms and conditions of the MDSPGP-5. The District Engineer may also require post-construction engineering drawings (as-built plans) for completed work, and post-dredging survey drawings for any dredging work.

**2. Compliance Certification:** Every permittee who receives a written MDSPGP-5 verification must submit a signed Compliance Certification Form within 60 days following completion of the authorized work and any required mitigation (but not mitigation monitoring, which requires separate submittals). Failure to submit the Compliance Certification Form by the permittee could result in the Corps taking appropriate non-compliance enforcement action against the permit holder. The Corps will provide a blank copy of the Compliance Certification Form to the permittee with the MDSPGP-5 verification. The completed form will include the following:

a. A statement that the authorized work either was or was not done in accordance with the MDSPGP-5 verification, including any general and/or specific conditions. If the activity was not done in accordance with the MDSPGP-5 verification, including any general and/or specific conditions and requirements, the permittee must describe the specifics of the deviation from the authorized activity.

b. A statement that any required mitigation was or was not completed in accordance with the permit conditions. If the mitigation was not completed in accordance with the permit conditions, the permittee must describe the specifics of the deviation from the permit conditions.

c. The signature of the permittee, certifying the completion of the work and compensatory mitigation.

After the project is completed, the certification must be sent to the Baltimore District at the following address:

**U. S. Army Corps of Engineers  
Baltimore District  
Attn: Regulatory  
10 S. Howard Street  
Baltimore, Maryland 21201**

**3. Transfer of MDSPGP-5 Verifications:** If the permittee sells the property associated with a MDSPGP-5 verification, the permittee may transfer the MDSPGP-5 verification to the new owner by submitting a letter to the Baltimore District Corps of Engineers office to validate the transfer. A copy of the MDSPGP-5 verification must be attached to the letter, and the letter must contain the following statement and signature:

"When the structures or work authorized by this MDSPGP-5 are still in existence at the time the property is transferred, the terms and conditions of this MDSPGP-5, including special conditions, will continue to be binding on the new owner(s) of the property. To validate the transfer of this MDSPGP-5 permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below."

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(Transferee)

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(Date)

**4. Maintenance:** The permittee must properly maintain the work or structure authorized by the MDSPGP-5 in good condition and in compliance with the terms and conditions of the MDSPGP-5, including maintenance to ensure public safety.

**5. Property Rights:** The MDSPGP-5 does not convey any property rights, either in real estate or material, or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or any infringement of Federal, State, or local laws or regulations.

**6. Modification, Suspension and Revocation:** The MDSPGP-5, or any verification under it, may be either modified, suspended, or revoked, in whole or in part, pursuant to DA policies and procedures and any such action must not be the basis for any claim for damages against the United States. The Corps will issue a public notice announcing any changes to the MDSPGP-5 when they occur; however, it is incumbent upon the permittee to remain informed of any changes to the MDSPGP-5

**7. Restoration:** The permittee, upon receipt of a notice of revocation of authorization under the MDSPGP-5, may be required to restore the wetland or waterway to its former condition, without expense to the United States and as directed by the Secretary of the Army or his authorized representative. If the permittee fails to comply with such a directive, the Secretary or his designee may restore the wetland or waterway to its former condition, by contract or otherwise, and recover the cost from the permittee.

**8. Special Conditions:** The Corps may impose special conditions on any project authorized under the MDSPGP-5, in cases where the Corps determines that special conditions are necessary to avoid or minimize adverse effects on the environment or on any other factor of the public interest. Failure to comply with all conditions of the authorization/ verification, including special conditions, will constitute a permit violation/unauthorized work and may subject the permittee to criminal, civil, or administrative penalties, and/or restoration.

**9. False or Incomplete Information:** In granting authorization pursuant to this permit, the Baltimore District will rely upon information and data provided by the permittee. If the Corps or MDE verifies the project under the MDSPGP-5 and subsequently discovers that it has relied on false, incomplete, or inaccurate information provided by the permittee, the MDSPGP-5 verification may be revoked, in whole or in part, and/or the United States may institute appropriate legal proceedings.

**10. Compliance:** Any activity performed in waters of the United States, including wetlands and navigable waters that is not in compliance with all the terms and conditions of the MDSPGP-5, which includes the MDSPGP-5 authorized activity activity-specific requirements,

constitutes unauthorized work and is subject to an enforcement action by the Corps or the EPA. Furthermore, the MDSPGP-5 does not delegate any Section 404 enforcement or regulatory authority. Unauthorized work in waters of the United States, including wetlands and navigable waters, is subject to one or more of the following responses by EPA and/or the Corps:

- a. A Cease and Desist order and/or an administrative compliance order requiring remedial action.
- b. Initiation and assessment of a Class I administrative penalty order pursuant to Section 309(g) of the CWA.
- c. Initiation and assessment of a Class II administrative penalty for continuing violation pursuant to Section 309(g) of the CWA.
- d. Referral of the case to the U. S. Attorney with a recommendation for a civil or criminal action.
- e. If the Corps determines that an after-the-fact application is appropriate, it will be reviewed following the appropriate procedures.
- f. Any other appropriate response.





DEPARTMENT OF THE ARMY  
BALTIMORE DISTRICT, CORPS OF ENGINEERS  
ATTN: REGULATORY BRANCH  
10 S. HOWARD STREET  
BALTIMORE, MD 21201

201760630

Corps Permit Tracking No.

**MDSPGP-5**  
**ACTIVITY c (1)**  
**Utility Lines**

**The authorized Utility Lines activities must comply with the following applicable activity specific conditions indicated by an "X" in the boxes below, all general conditions of this permit, and any project-specific special conditions.**

This activity authorizes the construction, maintenance, or repair of utility lines, including outfall and intake structures, and the associated mechanized land clearing, excavation, backfill, or bedding for the utility lines, in all waters of the United States, provided there is no change in pre-construction contours. A utility line is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable, or slurry substance. Utility lines also include any cable, line, or wire for the transmission of electricity, telephone and telegraph messages, radio, television, or other communication. The term "utility line" does not include activities which drain a water of the United States, such as drainage tile, or French drains. Individual impacts for a utility project will be added cumulatively for review of the overall project. An acceptable utility line project must have independent utility, including a defined starting and ending point of the proposed project, and a defensible purpose (refer to definition of "independent utility" in definitions section). Pipes or pipelines used to transport gaseous, liquid (i.e. water, etc.), liquescent, or slurry substances (i.e. sewage, etc.) over navigable waters of the United States are considered to be bridges, not utility lines, and may require a permit from the U.S. Coast Guard pursuant to Section 9 of the Rivers and Harbors Act of 1899. However, any discharges of dredged or fill material into waters of the United States associated with such pipelines will require a Section 404 permit. (Sections 10 and 404; all waters of the United States).

☐ **Category A Impact Limits and Requirements:**

- (i) The total temporary and permanent impacts to nontidal waters of the United States, which includes nontidal wetlands, streams, rivers, and other open waters, are not to exceed 10,000 square feet and/or 200 linear feet of streams, rivers, and other nontidal open waters.
- (ii) This Category A activity does not authorize work in, over, or under navigable waters under Section 10 of the Rivers and Harbors Act of 1899, (e.g., Potomac River, Susquehanna River, Chesapeake Bay, all tidal tributaries, etc.) or tidal wetlands.
- (iii) Limit-of-disturbance for the construction of utility lines within nontidal waters of the United States, including wetlands, must be limited to the minimum width necessary and not to exceed 30 feet in width.

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ACTIVITY (c-1)

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- (iv) The utility line must make a perpendicular crossing of any stream channel, except for instances where the existing on site conditions would require a diagonal crossing of the waterway.
- (v) Open-cut pipeline installation within adjacent jurisdictional wetlands must not parallel a stream channel for more than 100 feet along the ordinary high water mark.
- (vi) The top of the cable, encasement, or pipeline shall be located a minimum of 3 feet below the existing bottom elevation of the streambed and generally does not require any riprap protection in-stream. When the utility is placed in bedrock, a minimum depth of 1 foot from the lowest point in the natural contour of the streambed shall be maintained.
- (vii) All utility line activities, including access roads, constructed or installed in, over, or under navigable waters of the United States, including navigable nontidal Section 10 waters of the United States, and all tidal wetlands, require review under Category B or alternate Corps permit review procedures, as appropriate.

☐ **Category B Impact Limits and Requirements:**

- (i) The total temporary and permanent impacts to waters of the United States, which includes tidal and nontidal wetlands, streams, rivers, and other open waters, are not to exceed 1.0 acre (43,560 square feet) and/or 2,000 linear feet of streams, rivers, and other tidal and nontidal open waters.
- (ii) Where the proposed utility line is constructed or installed in, under, or over navigable waters of the United States (i.e., Section 10 waters), copies of the application and permit verification will be sent by the Corps to the National Oceanic and Atmospheric Administration (NOAA), National Ocean Service (NOS), for charting the utility line to protect navigation.
- (iii) For all submerged utility lines across navigable waters of the United States, the cross-sectional view drawing submitted with the application shall show the utility line crossing from bank to bank in relationship to the waterway bottom. In addition, the location and depth of the Federal navigation channel shall be shown in relation to the proposed utility line.
- (iv) For aerial electric power transmission lines crossing navigable waters of the United States, the minimum clearances listed under General Conditions (VII.A.10.) must be followed.
- (v) For overhead utility lines authorized by this MDSPGP-5 activity, a copy of the application and MDSPGP-5 verification will be provided to the Department of Defense Siting Clearinghouse by the Corps, to evaluate potential effects on military activities.
- (vi) As built drawings: Within 60 days of completing an activity that involves an aerial transmission line, submerged cable, or submerged pipeline across a navigable water of the United States (Section 10 waters), the permittee must furnish the Corps and the National Oceanic and Atmospheric Administration, Nautical Data Branch,

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ACTIVITY (c-1)  
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N/CS26, Station 7317, 1315 East-West Highway, Silver Spring, Maryland 20910 with professional, certified as-built drawings, to scale, with control (i.e., latitude/longitude, state plan coordinates), depicting the alignment and minimum clearance of the aerial wires above the mean high water line at the time of the survey or depicting the elevations and alignment of the buried cable or pipeline across the navigable waterway (Section 10 waters).

**□ Requirements Applicable to Both Category A and Category B Activities:**

- (i) Application must be submitted to MDE for Corps authorization.
- (ii) Impacts shall be minimized by selection of a utility alignment that avoids and minimizes wetland and waterway impacts to the maximum extent practicable. Directional drilling, jack and bore, missile, or similar methods are the preferred method of installation.
- (iii) Clearing of wetlands and fragmentation of large tracts of forested wetlands shall be minimized by routing utility lines outside wetlands and forested tracts or on the edges of wetlands and forested tracts where possible.
- (iv) When underground utility lines are installed in streams and wetlands, the trench cannot be constructed or backfilled in such a manner as to drain waters of the United States (e.g., backfilling with extensive gravel layers, creating a French drain effect). Clay plugs, impervious membranes, or other materials may be placed in the trenches to ensure that the trench does not drain the waters of the United States through which the utility line is installed.
- (v) Utility lines installed below the plane of the ordinary high water mark of any stream or waterway shall be constructed under dry conditions, using stream diversions other than earthen cofferdams.
- (vi) In wetlands, the top 6 to 12 inches of the trench must be backfilled with the top 6 to 12 inches of topsoil removed from the trench.
- (vii) Excavated material must not be stockpiled in wetlands for longer than 14 days. Excavated material must be stabilized with straw bales, silt fence, or other erosion and sediment control measures to prevent reentry of soil into waters of the United States.
- (viii) The activity must not block or impede the movements of anadromous or resident fish species. Appropriate measures must be taken to maintain near normal downstream flows and to minimize flooding. Fill must be of materials and placed in a manner that will not be eroded by expected high flows. Work should be accomplished by using stream diversion devices, other than earthen or stone cofferdams or causeways.
- (ix) Immediately after completion of construction of the utility line through the wetlands area, excess excavated material must be disposed of in an upland area and stabilized with straw bales, silt fence, or other erosion and sediment control devices to prevent its reentry into waters of the United States, including wetlands.

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- (x) Upon completion of the project, all temporary construction structures and materials (i.e. access roads, fill, dewatering devices, stream diversions, etc. must be removed within 14 calendar days after the structure is no longer needed, subject to any time of year restrictions. The affected areas must be returned to pre-construction conditions which include contours, elevations, stream substrate and re-vegetation with native wetland species. If time-of-year restrictions interfere with the removal of the structures, the permittee must immediately contact the Corps and/or MDE Project Manager for further instruction.
- (xi) Exposed slopes and stream banks must be stabilized and revegetated, preferably with native, woody species, immediately after construction of the utility line is completed.
- (xii) When mechanized landclearing results in the permanent removal or conversion of a forested or scrub-shrub wetland to an herbaceous wetland in the permanently maintained utility right-of-way, compensatory mitigation is required to offset the adverse effects of the project. This is in addition to the requirement to mitigate for other permanent wetland and nontidal stream impacts resulting from the discharge of dredged or fill material.
- (xiii) This activity does not authorize utility substations. Utility substations must be reviewed under Section IV.B.1.e.(1), Minor Nontidal Fills or alternate Corps permit review procedures, as appropriate.
- (xiv) For directional drilling activities authorized by this MDSPGP-5 activity, a remediation plan for the inadvertent returns of drilling muds must be provided with the application for review and approval. The remediation plan must include a detailed narrative of methods to contain and remediate impacts associated with inadvertent returns of drilling muds, information on equipment kept on site to handle inadvertent returns, and coordination procedures with the Corps and MDE in the event of inadvertent returns of drilling muds.

☐ **Project-Specific Special Conditions apply (See Corps verification letter for these conditions.)**



DEPARTMENT OF THE ARMY  
BALTIMORE DISTRICT, CORPS OF ENGINEERS  
ATTN: REGULATORY BRANCH  
10 S. HOWARD STREET  
BALTIMORE, MD 21201

Operations Division

**MDSPGP-5 PERMIT COMPLIANCE CERTIFICATION FORM (10/1/16)**

Corps Permit Tracking No. 201760630  
Category & Activity Number A(c-1)  
Project Name BA DPW/Herring Run Sewershed  
Applicant Name Baltimore County Dept. of Public Works  
Waterway Herring Run  
County Baltimore

Dear Permittee:

In accordance with the compliance certification condition of your MDSPGP-5 authorization, you are required upon completion of all permitted work, or if mitigation/compensation is required, within 60 days following completion of the authorized work and any required mitigation (but not the mitigation monitoring, which requires separate submittals), to complete and sign this certification form and return it to the Corps of Engineers, Baltimore District, ATTN: CENAB-OPR, 10 S. Howard Street, Baltimore, Maryland 21201.

Please note that the permitted activity is subject to compliance inspections by U.S. Army Corps of Engineers representatives. As a condition of this permit, failure to return this notification form, provide the required information below, or to perform the authorized work in compliance with the permit, can result in suspension, modification or revocation of your authorization in accordance with 33 CFR Part 325.7 and/or administrative, civil, and/or criminal penalties, in accordance with 33 CFR part 326.

**Please provide the following information:**

1. Date authorized work commenced: \_\_\_\_\_
2. Date authorized work completed: \_\_\_\_\_
3. Was all work and any required mitigation, completed in accordance with your MDSPGP-5 authorization, including all general and/or specific conditions? YES\_\_\_ NO\_\_\_
4. MDSPGP-5 projects authorized under Category A involving pile driving activities that are within all tidal waters of the Chesapeake Bay in Maryland and its tidal tributaries must meet one of the following conditions for the protection of listed species (See Section VII.B.4.c(1) of the MDSPGP-5). Pile driving activities may include but are not limited to, pier construction, marina reconfiguration, bulkhead construction, boat ramp finger pier construction, sheet pile driving, etc. Please place an "X" below next to the pile driving method(s) that was used for the authorized pile driving work:

- \_\_\_\_\_ (a) Plastic or concrete piles must be less than 12 inches when a cushioned impact hammer or vibratory hammer is utilized for installation.
- \_\_\_\_\_ (b) Timber piles must be 10 inches or less when a vibratory hammer is utilized for installation.
- \_\_\_\_\_ (c) Vinyl or timber sheet piles must be 24 inches or less in width, as measured from the outer edge of corrugation to the inner edge of corrugation, when a cushioned impact hammer or vibratory hammer is used.
- \_\_\_\_\_ (d) Pile driving activities must be located within freshwater tributaries or within tidal or nontidal wetlands.
- \_\_\_\_\_ (e) Piles of any size/type with any hammer method must be installed behind diversion structures or in the dry when the tide is out in the intertidal zone.
- \_\_\_\_\_ (f) Piles of any size/type with any hammer method must be installed between November 30 and March 15.

5. Explain in detail any deviations to the authorized work and/or mitigation (use additional sheets if necessary)

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6. Wetland Mitigation: Required? YES \_\_\_\_\_ NO \_\_\_\_\_
- a. Maryland State Wetlands Compensation Fund used? YES \_\_\_\_\_ NO \_\_\_\_\_
  - b. Required Completion Date: \_\_\_\_\_
7. Wetland Mitigation Completed? YES \_\_\_\_\_ NO \_\_\_\_\_ Date Completed: \_\_\_\_\_
- a. Mitigation Monitoring Reports Required? YES \_\_\_\_\_ NO \_\_\_\_\_
8. Please attach labeled photographs showing completed work including mitigation area(s).

I hereby certify that, except as noted above, that all work, including mitigation, has been completed in accordance with the terms and conditions, including special conditions of the above referenced permit.

Signature of Permittee \_\_\_\_\_ Date \_\_\_\_\_

Signature of Contractor/Agent \_\_\_\_\_ Date \_\_\_\_\_

Address \_\_\_\_\_

Contractor Address \_\_\_\_\_

Telephone: \_\_\_\_\_

Contractor Telephone \_\_\_\_\_

**UTILITY PERMIT GENERAL PROVISIONS**  
**Effective January 1, 2024**

**001.01 DESCRIPTION.** The Maryland Department of Transportation State Highway Administration (MDOT SHA) issues Utility Permits to only those companies, local governments, and municipalities that have been approved by the MDOT SHA as an Authorized Public Utility. The Permittee shall not perform any work within MDOT SHA rights-of-ways without a Complete Authorized Utility Permit for each location as per § 8-646 of the Transportation Articles of the Annotated Code of Maryland. The MDOT SHA issues Utility Permits in two (2) parts which, when combined, comprise a Complete Authorized Utility Permit. (hereinafter referred to as Complete Authorized Utility Permit).

**001.01.01 Part 1–Utility Permit General Provisions.**

- (a) These Utility Permit General Provisions contain the general requirements, conditions, procedures, and contact information required for all communications of activities performed within MDOT SHA right-of-way (ROW).
- (b) The Permittee shall download, sign, date, and return (to the appropriate District Office) the Utility Permit General Provisions Acknowledgement Form acknowledging the Permittee’s acceptance to abide by the Utility Permit General Provisions’ terms and conditions.

**001.01.02 Part 2–Individual Work Order Permits.**

- (a) Utility Construction Permits, Utility Relocation Permits (for MDOT SHA projects), Utility Blanket Permits, and Utility Permit Extensions, hereinafter referred to Individual Work Order Permits, grants the Permittee permission to perform limited work within various MDOT SHA ROW when combined with these Utility Permit General Provisions.
  - (1) **Utility Construction Permits** are issued for the installation, construction, and relocation; significant removal, replacement, or adjustment; and **major maintenance** of utility infrastructure as needed and requested by the Permittee.  
  
**Major Maintenance** is any maintenance that is beyond the normal, routine upkeep of the facility; beyond cyclical or planned maintenance; new service installations; any activity requiring excavations except in emergency situations; and the removal or replacement of poles. Major maintenance activities include any scheduled preventative maintenance involving excavations except in emergency situations, including test pitting in non-emergency situations, and require a Utility Construction Permit.
  - (2) **Utility Relocation Permits** are issued for the installation, construction, removal, relocation, replacement and adjustment of utility infrastructure as required by the MDOT SHA. Utility Relocation Permits are issued specifically in connection with MDOT SHA projects.

- (3) **Utility Blanket Permits** are issued for **minor maintenance** of utility infrastructure and utility work required in **emergency situations**. A Utility Blanket Permit is issued biennially from the appropriate districts for emergencies and minor maintenance activities, so the Permittee would not need to submit numerous individual site-specific Utility Permit Application Packages; however, this does not exempt the Permittee from obtaining required Traffic Control Permits in non-emergency situations.

**Minor Maintenance** is maintenance required to keep an existing utility facility in a good state of repair without adding to its physical makeup or changing its physical capacity. **Minor Maintenance** activities are routine, low in cost, straightforward, and expedient to correct which are normally accomplished as part of the annual operation and maintenance. Such activities covered in the Utility Blanket Permit would include existing customer service work, overhead work and pole attachments, lighting repairs, and splicing cables or other work in existing manholes/structures and vaults. Tree trimming activities required to access and maintain the Permittee's facilities are also covered in the Utility Blanket Permit.

**Emergency** is a situation resulting from a sudden, unexpected event or incident which presents a clear and imminent danger requiring immediate action to prevent or mitigate loss or damage to life, health, property or essential public services (including interruption of utility services). Emergency work is any activity, including roadway excavation, to make necessary temporary and permanent repairs to existing or potential unsafe conditions; and includes any work associated with the Emergency thereafter, including roadway excavation, to temporarily and permanently repair/restore essential public services and property, including MDOT SHA rights-of-ways. Emergency work is covered in the Utility Blanket Permit.

- (4) **Utility Permit Extensions** are issued for the extension of previously issued Utility Construction Permits and/or Utility Relocation Permits when the proposed utility work will not be completed by the expiration date of said permits. Utility Permit Extensions apply to only Utility Construction Permits and Utility Relocation Permits.

Utility Blanket Permits shall require the issuance of a new permit upon their expiration.

- (b) Individual Work Order Permits are issued by the appropriate district office under the signature of the District Engineer (or their approved designee).
- (c) **Part 1 and Part 2 combined.** The Permittee shall attach both parts of the Utility Permit together in order to constitute a Complete Authorized Utility Permit prior to beginning any work within the MDOT SHA's ROW.

**001.01.03 Utility Access.** Individual Work Order Permits alone or the Utility Permit General Provisions alone DOES NOT grant permission to the Permittee to work within the MDOT SHA ROW. Only a Complete Authorized Utility Permit grants permission to the Permittee access to the MDOT SHA ROW to perform the Permittee's work in accordance with and as defined in the Complete Authorized Utility Permit.



**001.02 MATERIALS. Not Applicable.****001.03 CONSTRUCTION.****001.03.01 GENERAL CONDITIONS.**

- (a) **Acceptance of terms and specifications.** It is agreed and understood that the issuance of any Complete Authorized Utility Permit will be construed to indicate complete acceptance of the terms and specifications outlined herein.
- (b) **Work.** All work shall be performed in accordance with the provisions of any Complete Authorized Utility Permit.
- (c) **Right to modify.** In the event of a safety concern, differing site conditions, design errors or omissions, restoration concerns, changes in laws, regulations or requirements, or any other unforeseen changes or issue which might affect any permit or permit provision, the MDOT SHA reserves the right to modify any permit or permit provision at any time to ensure safety, compliance, and restoration is acceptable to the MDOT SHA Standard Specifications. The Permittee will first be provided the opportunity to demonstrate its compliance with the permit or address the modification before any permit, or permit provision, is modified.
- (d) **Unsafe operations.** In the event the MDOT SHA determines that any operation is detrimental to the safe operation of the (State) highway system, the MDOT SHA will notify the Permittee. The Permittee shall suspend its operation(s) and then work with the MDOT SHA in good faith to determine if and/or how the Permittee's operation(s) can be continued or resumed in a manner that is not detrimental to the safe operation of the (State) highway system. If the Permittee's operation(s) cannot be continued or resumed in a manner that is of a safe operation of the (State) highway system, the MDOT SHA reserves the right to halt the Permittee's operation(s).
- (e) **Right to revoke.** In the event the Permittee's fails to comply with the terms of a Complete Authorized Utility Permit, the MDOT SHA will notify the Permittee of its non-compliance. The Permittee will then be provided the opportunity to cure its non-compliance before any permit, or permit provision, is modified or revoked. If the Permittee fails to cure its non-compliance, the MDOT SHA reserves the right to revoke the Complete Authorized Utility Permit.
- (f) **Permission.** Permission, when granted, to place utility facilities within the limits of MDOT SHA ROW is revocable at any time by the MDOT SHA. Any such revocation will have no bearing on any other facility of the Permittee under a franchise authorized under the Annotated Code of Maryland, Public Utilities Article.
- (g) **Complete Authorized Utility Permit-job site.** A copy of the Complete Authorized Utility Permit must be on the job site at all times during the performance of all work identified in the Individual Work Order Permits in order that the Permittee's personnel and/or the Permittee's contractor is in a position to comply with the requirements of the Complete Authorized Utility Permit. The Procurement Officer shall have the option of stopping work on MDOT SHA projects where the Permittee's representative does not

have a copy of the Complete Authorized Utility Permit on the job site and/or is not familiar with the contents of the permit.

- (h) **Property interest.** Permits issued by the MDOT SHA do not convey any property interest to the Permittee or to any successor of the Permittee.
- (i) **Future road improvements.** In the event future road improvements require the relocation, adjustment, and/or removal of facilities installed under any Complete Authorized Utility Permit, all costs associated with the relocation, adjustment, and/or removal of said facilities shall be borne by the Permittee.
- (j) **Non-compliance.** In the event that the Federal Highway Administration (FHWA) or any other federal authority with jurisdiction over the subject matter determines that a specific use of the MDOT SHA ROW (or the terms of such use) noncompliant with applicable federal authority, the MDOT SHA shall have the right to direct the Permittee to take the necessary actions to bring any such use (or the terms of such use) into compliance with the applicable federal authority without assuming the liability of any user/Permittee of such ROW. The Permittee will be provided with information on the authority's determination. The Permittee shall provide maximum cooperation to the MDOT SHA and any such Federal authority to assure prompt compliance is achieved.
- (k) **Hold harmless and insurance requirements.** Hold Harmless, Indemnification, and Insurance provisions (as required by Section GP-7.13 of the most current "MDOT SHA Standard Specifications for Construction and Materials, as may be revised from time to time) are hereby required of the Permittee. The Permittee covenants and agrees to require all contractors and subcontractors or other parties that the Permittee uses to perform work within any MDOT SHA rights-of-way, including both MDOT SHA controlled access rights-of-way and MDOT SHA secondary roads (collectively, "ROW") to abide by the same provisions and requirements. The State of Maryland, the Maryland Department of Transportation and the State Highway Administration ("MDOT SHA") must be listed as additional named insureds on all insurance policies. Self-Insured companies may provide a self-insurance letter. Certificates and letters of self-insurance must be mailed to the State Highway Administration, Attn. Statewide Utility Engineer, Office of Construction, 7450 Traffic Drive, Hanover, MD 21076 prior to the commencement of any work within MDOT SHA ROW.
- (l) **Liability requirements.** The Permittee shall be responsible for, defend (at the State's option), indemnify, and hold harmless the State of Maryland, MDOT, and MDOT SHA, their respective members, officers, agents, and employees, against and from any and all liability or claim of liability for bodily injury (including death) or property damage (including reasonable attorneys' fees) related to involving or arising, in whole or in part from any act or failure to act or out of the use, occupancy, conduct, or operation, construction, maintenance, or management of or upon any portion of state rights-of-way (as approved and authorized in the Complete Authorized Utility Permit) by the Permittee, its principals, contractors, employees, agents, licensees, lessees, or invitees in accordance with the most current GP-7.13 RESPONSIBILITY FOR DAMAGE CLAIMS, Standard Specifications For Construction And Materials, including, by way of example only: (a) any work or thing whatsoever done or not done on state rights-of-way (as approved and authorized in any Complete Authorized Utility Permit) by or on behalf of the Permittee;

or (b) any breach, default, or Event of Default by the Permittee in performing any of its obligations under the provisions of these Utility Permit General Provisions, Individual Work Order Permits, or applicable law. The Permittee agrees that the indemnification as described in this Section shall include any liability or claim of liability that occurs during the Term (or that occurs after the Term where the Permittee has obligations under any Complete Authorized Utility Permit that remain following the expiration or termination of the Term), even if the injury does not become apparent or does not manifest itself until after expiration of any Complete Authorized Utility Permit. In no event shall the mention of “any portion of state rights-of-ways” within this Section be interpreted to grant the Permittee rights to use portions of state rights-of-ways other than those expressly approved by the State on any Complete Authorized Utility Permit, nor shall any mention of “licensees” or “lessees” in this Section be interpreted to allow the Permittee to assign or otherwise transfer any rights or obligations it has under any Complete Authorized Utility Permit.

- (m) **No waiver of immunity.** Nothing in any Complete Authorized Utility Permit shall constitute a waiver of any immunity to which the State of Maryland, MDOT, or MDOT SHA may be entitled under any federal law or under the laws of the State of Maryland, as they may be amended from time to time.
- (n) **Compliance with laws and regulations.** The Permittee shall comply with all Federal, State, and local laws, regulations and ordinances applicable to their activities.
- (o) **Right to Inspect.** The MDOT SHA reserves the right to inspect any operation, work or material which may impact safety, integrity of the roadway or restoration of the MDOT SHA’s ROW. On large projects, weekend work, or night work, requiring significant or extensive inspection which exceeds the staffing resources the MDOT SHA, the MDOT SHA may need to assign inspection forces while work is being accomplished within MDOT SHA ROW at the expense of the Permittee. The MDOT SHA will inform the Permittee if its intent to assign inspection forces prior to commencement of the permit work.
- (p) **Permits Not Assignable.** Complete Authorized Utility Permits are not assignable. The use of any Complete Authorized Utility Permit by any party not specifically indicated on the Utility Permit General Provisions AND the Individual Work Order Permit shall constitute the immediate revocation of the permit. Contractors and subcontractors authorized by the Permittee are authorized to carry out the work allowed under a Complete Authorized Utility Permit on behalf of the Permittee.
- (q) **Cost of repairs.** The Permittee will be responsible for the cost of any repairs to roadway embankments, drainage facilities, or any other facilities owned or maintained by the MDOT SHA should they become necessary or as caused by the construction, existence or failure of this utility or utility facility.
- (r) **Restore.** Upon completion of work, MDOT SHA rights-of-ways affected by any Complete Authorized Utility Permit shall be restored to its original condition to the complete satisfaction of the Permit Inspector and the District Utility Engineer.
- (s) **Traffic control plan.** A copy of the Work Zone Traffic Control Plan approved by the MDOT SHA shall be attached to the Complete Authorized Utility Permit at all times.

- (t) **Prior notifications.** The Permittee shall contact all offices and persons prior to the start of utility work, in accordance with the Complete Authorized Utility Permit - Notifications requirements.
- (u) **Additional easements.** The Permittee shall be solely responsible for obtaining any additional easements; right of entry's, etc. from abutting property owners necessary for the Permittee to perform any approved work under said Complete Authorized Utility Permit.
- (v) **Open cutting.** Open cutting of any paved surface is strictly prohibited unless specifically authorized in the Individual Work Order Permit.
- (w) **Abide by terms and conditions.** The Permittee shall (i) initially when requesting to be approved as an Authorized Public Utility; and (ii) again at each notification that the Utility Permit General Provisions have been revised; sign, date, and return the Utility Permit General Provisions Acknowledgement Form acknowledging the Permittee's acceptance to abide by the Utility Permit General Provisions' terms and conditions.
- (x) **Deactivated or taken out-of-service.** When the Permittee's work is to replace, renew, or for the facilities to be deactivated and be taken out-of-service (retired), the Permittee shall remove what was the original main line, service, or appurtenance unless otherwise agreed to, in writing, by the MDOT SHA and the Utility. In the past, what was referred to as abandon, abandoned, and/or abandonment is no longer acceptable. As the connotation of the terms implied that there was no further responsibility for the facility, these terms are no longer used. The Permittee is still responsible for any utility facility that is approved to remain in the MDOT SHA rights-of-way. A Letter of Agreement (LOA) shall be executed and a requirement prior to any permit's approval and issuance.
  - (1) The Utility shall deliver an electronic file and/or a hard copy with georeferenced coordinates of the deactivated or taken out-of-service facilities' location when it is agreed upon that the deactivated and be taken out-of-service (retired) facility will remain in the State's ROW. The electronic file may be a MicroStation drawing .dgn file, As Constructed As Built plan set with georeferenced coordinates (latitude and longitude out six decimal places or the most current available version), collection of data by the Utility's staff with State provided esri Survey123 ArcGIS Online account (AGOL) and collector application, or other agreed to mechanism.

### 001.03.02 NOTIFICATIONS.

**001.03.02.01 Traffic Controls.** Certain State roads require a Traffic Control Permit from the District Office Traffic Section. Contact the District Utility Permit Section, as identified on the Individual Work Order Permit, a minimum of five working days prior to beginning work to obtain the required Traffic Control Permit(s). The Permittee must comply with all Traffic Control Notification Procedures.

**001.03.02.02 Roadside Tree Care.** The Permittee is responsible for contacting the Maryland Department of Natural Resources - Forest Service (DNR-FS) prior to the start of construction and shall obtain necessary permits, if any, to comply with the Roadside Tree Care Section of the Annotated Code of Maryland. Any work that involves tree felling, or tree branch pruning, or excavation which impacts the roots of roadside trees, requires a DNR-FS Permit.

The Roadside Tree Law Permit Application can be accessed on the MDOT SHA website under the Business Utility Permit General Provisions (12/14/2023) Standards and Specifications / Roadside Tree Law Summary at <https://www.roads.maryland.gov/mdotsha/pages/Index.aspx?PageId=221>.

The Utility Permit will not be issued to the Permittee until a copy of the DNR-FS Permit is submitted to the District Utility Engineer.

**001.03.02.03 Landscaping.** The Permittee shall perform landscape construction in conformance with Category 700 – Landscaping of MDOT SHA Standard Specifications for Construction and Materials, and in conformance with the permit documents and any landscape plans approved for the permit. Inspections will be performed by the Office of Environmental Design’s Quality Assurance Division and Landscape Programs Division in conformance with MDOT SHA Standard Specifications. Questions regarding approved landscape plans or modifications should be addressed to [oadprojectreview@mdot.maryland.gov](mailto:oadprojectreview@mdot.maryland.gov).

**001.03.02.04 MDOT SHA Signal Facilities.** Care shall be exercised when working adjacent to traffic signal facilities. The MDOT SHA Office of Traffic and Safety Signal Operation Section having jurisdiction over the traffic signals involved must be notified a minimum of three (3) business days before the start of construction work in order to coordinate any work to be performed near MDOT SHA traffic signal facilities. The Contact number for the MDOT SHA Office of Traffic and Safety Signal Operation Section is 410-787-7650.

**001.03.02.05 Signs and Street Lighting Facilities.** Care shall be exercised when working adjacent to MDOT SHA signs and street lighting facilities. The District Maintenance Engineer in the appropriate MDOT SHA district must be notified a minimum of three (3) business days before the start of construction work in order to coordinate any work to be performed near MDOT SHA signs and street lighting facilities.

**001.03.02.06 MDOT SHA Communication Facilities.** Care shall be exercised when working adjacent to MDOT SHA communication facilities (fiber optic, telecom, etc.). The MDOT SHA Office of CHART & ITS Development Communications Division at 410-747-8590 must be notified a minimum of three (3) business days before the start of Utility work in order to coordinate any work to be performed near MDOT SHA communication facilities.

**001.03.02.07 MDOT SHA Automated Traffic Counting Station (ATR’s).** Care shall be exercised when working adjacent to ATR facilities. The Office of Planning & Preliminary Engineering Data Services Engineering Division at 410-545-5523 must be notified a minimum of three (3) business days before the start of utility work in order to coordinate any work to be performed near MDOT SHA ATR facilities.

**001.03.02.08 MDOT SHA Construction Projects.** If any work under any Complete Authorized Utility Permit is to be performed in any proximity of a MDOT SHA construction project, or will have any effect whatsoever on any work performed on a MDOT SHA construction project, or will effect maintenance of traffic concerning any other roadway network system in conjunction with any MDOT SHA construction project, the Permittee is required to notify the Contractor’s Utility Coordinator and/or the State’s Project Engineer for that project at least three (3) business days in advance of any commencement of work and is, therefore, required to coordinate all work performed under any Complete Authorized Utility Permit with the Contractor’s Utility Coordinator and/or the MDOT SHA Project Engineer.

**001.03.02.09 MDOT SHA Maintenance Projects.** If any work under any Complete Authorized Utility Permit is to be performed in any proximity of a MDOT SHA maintenance project, or will have any effect whatsoever on any work performed on a MDOT SHA maintenance project, or will effect maintenance of traffic concerning any other roadway network system in conjunction with any MDOT SHA maintenance project, the Permittee is required to notify the Resident Maintenance Engineer and/or the District Maintenance Office for that area at least three (3) full business days in advance of any commencement of work and is, therefore, required to coordinate all work performed under any Complete Authorized Utility Permit with the District Maintenance Office or Resident Maintenance Engineer.

**001.03.02.10 Miss Utility.** The Permittee must contact “Miss Utility” in compliance with Title 12 - Underground Facilities of the Public Utilities Articles of the Annotated Code of Maryland via the internet at [www.missutility.net](http://www.missutility.net) two (2) business days (call in day does not count) in advance of performing any excavating or similar work. If the Permittee is unable to contact Miss Utility via the internet, the Permittee may call Miss Utility at 1-800-257-7777 or 1-800-441-8355 (for Kent, Queen Anne’s, Talbot, & Caroline counties). Ticket life is twelve (12) business days after day on which the ticket is transmitted to the Permittee. The Permittee shall be charged a locate fee of up to Thirty-five (\$35.00) dollars by the MDOT SHA for locating MDOT SHA facilities.

**001.03.02.11 MDOT SHA District Utility Engineer.** The Permittee shall notify the appropriate contact person listed in the Individual Work Order Permit a minimum of three (3) business days before the start of construction, in accordance with the Complete Authorized Utility Permit requirements, with the name of its representative for the job; verification that the Permittee has notified all other offices previously listed; and that the Permittee has coordinated work with said offices. Failure to do so will result in immediate suspension of work until proper notifications are made.

**001.03.02.12 Other Utility Companies.** The Permittee must contact the appropriate Utility Companies prior to performing any work near their respective facilities in order to determine any clearance requirements; coordinate any construction activities; and/or dig test holes/test pits, if needed, at their own cost.

**001.03.02.13 Environmental Permit Requirements.** The Permittee shall comply with all Federal, State, and local environmental requirements and must obtain all environmental permits necessary to perform the work under said permit prior to commencement of any work.

### **001.03.03 DESIGN AND CONSTRUCTION STANDARDS, PROCEDURES, AND POLICIES.**

**001.03.03.01 Design and Construction.** Design and construction associated with this permit shall be performed in complete conformance with standards, procedures, and policies of the following MDOT SHA publications:

- (a) Maryland Manual on Uniform Traffic Control Devices (MdMUTCD)
- (b) Standard Specifications for Construction and Materials
- (c) Book of Standards for Highway & Incidental Construction
- (d) Maryland Standard Method of Tests, Materials Manual, Laboratory and Field Procedures

- (e) MDOT SHA Utility Policy
- (f) Manual for Controlling and Reducing the Frequency of Pavement Utility Cuts
- (g) Occupational Safety & Health Administration (OSHA)
- (h) Maryland Occupational Safety and Health (MOSH)
- (i) Standard Specifications for Subsurface Explorations
- (j) Supplemental Specifications and Provisions

Note: Copies of the above-mentioned publications can be obtained from the MDOT SHA website: [roads.maryland.gov](https://roads.maryland.gov). Any changes to these Utility Permit General Provisions will be noted in the individual permits.

**001.03.03.02 Laws & Regulations.** The Permittee is responsible for compliance with all laws and regulations included, but not limited to, those of the Federal Highway Administration, Maryland Public Service Commission, National Electric Safety Code, Maryland Occupational Safety and Health Administration, County or Municipal Planning and Zoning Boards, Army Corps of Engineers, Maryland Department of Natural Resources, Maryland Department of Environment, PHMSA, and USDOT. The Permittee shall comply with the High Voltage Line Act of the Labor and Employment Article of the Annotated Code of Maryland and OSHA's Cranes and Derricks in Construction Directive. This permit DOES NOT release the Permittee from acquiring any additional permits that these or other agencies may require.

**001.03.03.03 Railroad.** The Permittee is responsible for obtaining the required permits prior to performing any work on or adjacent to railroad facilities or ROW (ROW) thereof.

**001.03.03.04 Underground Facilities.** All underground utility facilities placed within the ROW of the MDOT SHA MUST maintain a minimum cover of three (3') feet on secondary roadways at all times between the top of any buried duct or cable and finished grade or pavement surface which includes the bottom of any ditch lines as outlined in the MDOT SHA Utility Policy. On expressway/freeways, buried facilities must be placed at least five (5') feet below finished grade or pavement surface which includes the bottom of any ditch lines. The MDOT SHA District Utility Engineer reserves the right to require any facility to be placed at depths greater than three (3') feet at their discretion to facilitate operations of the MDOT SHA. If at a later date, it is discovered the facilities installed under this permit do not meet this requirement, the Permittee will be required to make necessary adjustments solely at their cost, regardless of who is performing the work. Information about MDOT SHA highways can be found here MDOT SHA's [Highway Location Reference](https://roads.maryland.gov) located on the MDOT SHA website at: [roads.maryland.gov](https://roads.maryland.gov).

**001.03.03.05 Revised Plans.** The MDOT SHA reserves the right to stipulate modifications to the approved construction plans whenever necessary. The MDOT SHA will notify the Permittee of any modifications, required by the MDOT SHA, to the approved construction plans prior to performance of the work. The Permittee shall be entirely responsible for all additional costs and expenses associated with these changes. It is agreed and understood that significant deviation by the Permittee from the plans submitted shall be reported immediately to the MDOT SHA contact person listed in the Individual Work Order Permit and a revised plan showing changes shall be submitted to the MDOT SHA in accordance with TC-4.01 – Working Drawings for approval prior to performance of the work. Relocation and/or adjustment of any public or private utility shall be the responsibility of the Permittee.

**001.03.03.06 As Constructed Deliverables.** MDOT SHA follows the American Society of Civil Engineers (ASCE) 75-22 Standard Guideline for Recording and Exchanging Utility Infrastructure Data. The Permittee shall submit an electronic file and/or a hard copy of As Constructed Plan Sets with georeferenced coordinates.

The Permittee is required to provide Geographic Information System (GIS) coordinates of any of its facilities, infrastructure, and appurtenances installed within the permitted area(s) to MDOT SHA District Office within Sixty (60) calendar days or agreed upon timeline of the completion of the Permittee's installation.

To comply with this requirement, the Utility As Constructed Plan Sets submitted to the MDOT SHA shall be as follows:

Utility location data of any new construction, to include but not limited to the installation, adjustment, and/or relocation of facilitates, appurtenances, and/or infrastructure asset(s) shall be georeferenced with GPS coordinates.

- (a) for aerial construction: the coordinates shall be provided for items to include but not limited to pole installations, adjustments, or relocations.
- (b) for underground construction: the coordinates shall be provided for items to include but not limited to manholes, hand holes, pedestals, valve covers, vents, clean-outs, and/or any demarcation point at the beginning, along the path of, and at end of the installation, adjustment, or relocation.
- (c) The electronic file may be a MicroStation drawing .dgn file, As Constructed As Built plan set with georeferenced coordinates (latitude and longitude out six decimal places or the most current available version), collection of data by the Utility's staff with State provided esri Survey123 ArcGIS Online account (AGOL) and collector application, or other agreed to mechanism.

#### **001.03.04 MAINTENANCE OF TRAFFIC.**

**001.03.04.01 Work Zone Traffic Control.** Work Zone Traffic Control is to be in complete conformance with the current and latest specifications, standards, provisions and policies of these Provisions Section 001.03.03 – DESIGN AND CONSTRUCTION STANDARDS, PROCEDURES, AND POLICIES. In addition to the documents referenced above, design and construction associated with Work Zone Traffic Control shall be performed in complete conformance with, and with particular attention to, the following MDOT SHA publications:

- Work Zone Safety and Mobility Policy
- High Visibility Apparel Policy
- Maryland Manual on Uniform Traffic Control Devices (MdMUTCD)
- Traffic Control Devices Design Manual
- Traffic Control Analysis's Guidelines
- Maryland Standard Sign Book
- Book of Standards for Highway & Incidental Structures
- Standard Specifications for Construction and Materials
- Supplemental Specifications and Provisions
- Accessibility Policy & Guidelines for Pedestrian Facilities along State Highways



- SHA Bicycle and Pedestrian Design Guidelines

Copies of the above-mentioned publications can be obtained from the MDOT SHA's website: [roads.maryland.gov](https://roads.maryland.gov).

**001.03.04.02 Approved Work Zone Traffic Control Plan.** An approved Work Zone Traffic Control Plan (WZTC) is required for all work performed within MDOT SHA right of way. The Permittee is responsible to submit a carefully designed WZTC Plan to the District Utility Engineer (or approved designee) for any relocation or permit work affecting a highway. This plan must be in complete accordance with Temporary Traffic Control Typical Applications detailed in the MDOT SHA's Book of Standards for Highway and Incidental Structures and the MdMUTCD. The WZTC plan shall address vehicular, bicycle, and pedestrian traffic on or along any transportation facility in accordance with MDOT SHA's Work Zone Safety and Mobility Policy; and on any specific directions received from the appropriate District Engineer (or approved designee). The WZTC Plan should indicate the time during which work is to be performed as well as the proposed placement of signs and layout of traffic control devices. When speed of traffic is noted, this means the posted speed or prevailing travel speed; whichever is higher, unless otherwise specified. All changes, modifications, or alterations to the approved WZTC Plan shall be submitted in writing to the District Utility Engineer in advance for review and approval. A copy of the approved Work Zone Traffic Control Plan is always to be attached to the permit. All closures are to be performed in complete accordance with the approved Work Zone Traffic Control Plan. Traffic Control Plan revisions shall be submitted per the 2017 Standard Specifications for Construction and Materials, Section 104.01 – Traffic Control Plan.

**001.03.04.03 Work Zone Modifications.** All changes, modifications, or alterations to the approved Work Zone Traffic Control Plan must be submitted in writing to the MDOT SHA District Utility Engineer at least ten (10) business days in advance for review and approval. The MDOT SHA reserves the right to modify and/or expand the methods of traffic control specified if in the opinion of the Engineer or Inspector, the Permittee's operations are a detriment to the safe and efficient flow of traffic. In the event that the construction plans are revised, or differing site conditions are encountered, the WZTC Plan shall be reviewed and revised, if necessary, to comply with the MDOT SHA's Book of Standards for Highway and Incidental Structures and the MdMUTCD.

**001.03.04.04 Traffic Control by MDOT SHA.** In the event that the MDOT SHA is required to provide traffic control, due to the Permittee failing to maintain a safe work zone or if a Permittee requests the MDOT SHA to provide traffic control, all costs and applicable overhead shall be billed directly to the Permittee. In the event that a 3<sup>rd</sup> party caused a situation or emergency which required the MDOT SHA and/or the Permittee to provide traffic control, all costs and applicable overhead shall be billed directly to the 3<sup>rd</sup> party that caused the situation or emergency.

**001.03.04.05 Traffic Manager's Responsibility.** A MDOT SHA certified Traffic Manager must be specifically designated for each permit application. This identification must include a 24-hour contact telephone number for someone that will respond to Work Zone Traffic Control situations. The Traffic Manager will be responsible for ensuring the proper implementation and maintenance of the Work Zone Traffic Control Plan as well as conducting regular day and night inspections of the traffic control devices and overall traffic operations. Permittee Personnel may obtain an approved Traffic Manager certification from the Maryland Transportation Builders and

Materials Association (MTBMA). Information on Traffic Manager certification can be obtained from MTBMA's website at <http://www.mtbma.org>.

**001.03.04.06 Traffic Control Devices.** All traffic control devices must comply with performance criteria published in the National Cooperative Highway Research Program (NCHRP) Report 350, "Recommended Procedures for the Safety Performance Evaluation of Highway Features."

- (a) Traffic Control signs or devices identified as unsatisfactory by the District Utility Engineer or their representative must be replaced immediately.
- (b) High performance wide-angle retro-reflective sheeting for signs, fluorescent orange in color, shall be used on projects along interstate highways and other freeways, unless otherwise specified.
- (c) Type VI (vinyl micro-prismatic) retro-reflective sheeting conforming to Federal Highway Administration's Standard Specifications for Construction of Roads and Bridges and AASTM D-4956 is acceptable for use on roll up signs and channelizing devices.
- (d) Upon initial installation, temporary traffic control signs shall have at least 70 percent of the reflectivity over 90 percent of the reflectorized surface as specified in Section 950.03-Reflectorization of Signs and Channelizing Devices and in Section 104.08.03 of the Standard Specifications for Construction and Materials, Dated 2017.
- (e) When temporary traffic control signs are not indicative of actual conditions (e.g. temporary shutdowns, overnight, or other periods when work is not being performed) the signs shall be removed, turned away from traffic, or completely covered.
- (f) At least 90 percent of all reflective barrier markers, warning lights, and raised pavement markers shall be operational at any given time.
- (g) Flashing arrow boards as early warning devices shall be used whenever a lane is closed unless considered unnecessary by the District Engineer.
- (h) Under certain circumstances, a variable message sign (VMS) may be required. The corresponding job-specific permit will provide details about what message must be displayed; how much advance notice must be given, etc. Messages displayed on the VMS will be coordinated with the District Utility Engineer and have prior approval of the District Traffic Engineer.
- (i) The Permittee shall correct any deficiencies within 24 hours after notification.

**001.03.04.07 Lane, Ramp, and Shoulder Closures.** The Permittee shall apply for and obtain a Traffic Control Permit from the appropriate District Office prior to closing any lanes. The District Utility Engineer (or approved designee) will approve the time schedules and numbers of lanes involved for lane closings. All Traffic Controls will be allowed only during off peak hours. Lane and shoulder closures on wet roadways are strictly prohibited. Travel lanes and shoulders must be restored immediately in the event of precipitation. All Travel lanes shall be restored immediately in the event of accident or emergency within or adjacent to the work area. Delay to motorists traveling through work zone lane, ramp, or shoulder closures shall not exceed the thresholds in accordance with MDOT SHA's Traffic Control Analysis's Guidelines. All lane and shoulder closures will be cleared immediately at the specific direction of any representative

of the MDOT SHA. The Permittee is responsible to coordinate all Traffic Control activities with adjacent contractors. When a lane, ramp, or shoulder closure is in effect, work must begin within one hour after the lane is closed. Once work is completed, travel lanes and shoulders are to be restored immediately.

**001.03.04.08 Road Closures.** Full or temporary roadway closures for non-emergency situations are not permitted without prior approval of the MDOT SHA District Utility Engineer. The Permittee is responsible for coordinating Maryland State Police Assistance for any temporary roadway closure. No temporary roadway closure can exceed 15 minutes in duration. The Permittee must provide a minimum of two Variable Message Signs (VMS) for any temporary roadway detour or roadway closure. VMS sign messages must be approved by the District Utility Engineer prior to display. The delay to motorists traveling through work zone lane, ramp, or shoulder closures shall not exceed fifteen (15) minutes unless there is an emergency and it is approved by the District Utility Engineer. Prior to reopening, all travel lanes and shoulders must be completely cleared of all materials, equipment, and debris.

**001.03.04.09 Travel Lanes.** No travel lane shall be reduced to less than ten (10') feet in width at any time.

**001.03.04.10 Emergency Crossovers.** The use of emergency crossovers is strictly prohibited.

**001.03.04.11 Pedestrian & Bicycle Traffic.** The Permittee shall provide for safe bicycle and pedestrian access through work zones for all permits and projects where applicable and to the maximum extent feasible. Provisions for bicycle and pedestrian access shall be clearly shown on the WZTC plan. The Permittee shall submit plans for all proposed road closings or detours to MDOT SHA's Bicycle and Pedestrian Coordinator for review and comment. Provisions for bicycle and pedestrian access through the work zone must be Americans with Disabilities Act (ADA) compliant. Information about MDOT SHA's ADA requirements can be found in MDOT SHA's Accessibility Guidelines for Pedestrian Facilities along State Highways located on the MDOT SHA website at: [roads.maryland.gov](http://roads.maryland.gov).

**001.03.04.12 Flaggers.** All flagging operations are to be performed by individuals who have successfully completed MDOT SHA's Approved Flagger training course. Each flagger is always to have in their possession an approved MDOT SHA flagger training card. Flagging is to be conducted utilizing stop/slow paddles in complete accordance with Part VI Section 6F of the current edition of the MdMUTCD. Flaggers are always to be appropriately attired. Flaggers must wear a reflective vest, meeting the requirements of MDOT SHA's High Visibility Apparel Policy, always while flagging. Contractor Personnel may obtain an approved Flagger certification from the American Traffic Safety Services Association (ATSSA). Information on Flagger certification can be obtained from ATSSA's website at <http://www.atssa.com/>

**001.03.04.13 Dry Road.** Precautions shall be taken, particularly in freezing temperatures, to keep water off travel lanes.

**001.03.04.14 Driveway Access.** The Permittee is responsible to insure safe pedestrian and vehicular access to private and public driveways, entrances, and roadways always.

**001.03.04.15 Emergency Access.** Access to fire hydrants, firehouses, hospitals, and mailboxes is always to be maintained.

**001.03.04.16 Working Hours:** Work done that will impact on MDOT SHA roadway and shoulder areas is allowed only during certain hours. The following sub-sections describe generally when this work is permitted:

- (a) Work is permitted Monday through Friday only. Generally, working hours for MDOT SHA roadway and shoulder closures are restricted to between 9:00 AM and 3:00 PM and 9:00 PM and 5:00 AM. Work not adjacent to travel lanes is permitted between 7:00 AM and 7:00 PM. Exceptions to these hours may be specified in the individual permit. The Permittee shall confirm allowable lane and shoulder closure hours with the District Utility Engineer prior to work. All requests for additional special exceptions must be provided in writing to the Office of the District Utility Engineer.

The District Utility Engineer has the authority to require reimbursement for MDOT SHA inspection if the work is to take place during non-standard hours even if the MDOT SHA requires weekend work, nighttime work, or when the location and/or duration of the work is an undue burden to the State due to safety of the operation or travelling public. An agreement must be in place before the work starts.

- (b) Night work and weekend work is prohibited in residential areas unless authorized by the District Utility Engineer.
- (c) No work is allowed on the day(s) of major holidays or holiday weekends, or days preceding and following said holiday(s) or holiday weekends. Holiday restrictions may vary by location. Information regarding specific holiday restrictions can be obtained from the Office of the District Utility Engineer prior to each holiday. The National holidays mentioned are listed as follows: (These may or may not be the same as the State holiday).

**NATIONAL HOLIDAYS:**

New Year's Day, January 1  
 Martin Luther King's Birthday, the third Monday in January  
 Washington's Birthday, the third Monday in February  
 Memorial Day, the last Monday in May  
 Juneteenth National Independence Day, typically June 19th  
 Independence Day, July 4  
 Labor Day, the first Monday in September  
 Columbus Day, the second Monday in October  
 Veteran's Day, November 11  
 Thanksgiving Day, the fourth Thursday in November  
 Christmas Day, December 25

- (d) Work may also be restricted for special events occurring along specific routes. Information regarding specific special event restrictions can be obtained from the Office of the District Utility Engineer prior to any special event. Additional work restrictions, if any, will be noted in the Individual Work Order Permit. Reimbursement for MDOT SHA inspection may be required.
- (e) Any deviation from the approved traffic control standard for the Individual Work Order Permit, such as when construction plans are revised, or differing site conditions encountered, must be approved by the MDOT SHA Permit Inspector prior to the

commencement of work. The MDOT SHA reserves the right to modify and/or restrict working hours or deny permission to work within MDOT SHA rights-of-way at any time if, in the opinion of the Engineer or Inspector, the Permittee's operations are a detriment to the safe and efficient flow of traffic.

**01.03.04.17 Specific Signing Instructions.** Signing shall be placed in accordance with the MdMUTCD, the MDOT SHA's Standard Highway Sign Book, and the Complete Authorized Utility Permit. All work area warning signs shall be 48 in. x 48 in. unless otherwise specified. MDOT SHA's Standard Highway Sign Book may be obtained from the Office of Traffic and Safety, Traffic Engineering Design Division. Refer to Section 104.08 TEMPORARY TRAFFIC SIGNS (TTS) for a detailed description of the requirements to furnish, install, and maintain TTS on or along all MDOT SHA transportation facilities. The following are additional requirements for TTS:

- (a) Sign details are available from the Office of Traffic & Safety, Traffic Engineering Design Division.
- (b) Construction Identification signs (Hat and Shovel) G2-1(1), G2-1(2), or G2-1(3) shall be installed at each approach and end of all projects greater than two (2) months in duration unless otherwise noted or directed by the Engineer.
  - (1) The initial sign will be installed between the one-mile and one-half mile advance warning signs unless otherwise specified. See MDOT SHA Standard No. MD 104.01-04 ( $\geq 40$  mph) and MDOT SHA Standard No. MD 104.01-04 ( $\leq 40$  mph) for placement.
- (c) The ROADWORK (W20-1) sign and END ROAD WORK (G20-2) sign shall be installed at each approach and end of all projects greater than two months in duration, unless otherwise noted or directed by the Engineer.
  - (1) The Hat and Shovel sign installed near the end of the project will not replace the End Road Work sign. See MDOT SHA Standard No. MD 104.01-04 ( $\geq 40$  mph) and MDOT SHA Standard No. MD 104.01-04 ( $\leq 40$  mph) for placement.
- (d) When highway alignment changes occur throughout the work area due to phase changes, install a supplemental panel beneath the Construction Length sign stating, "NEW TRAFFIC PATTERNS." The supplemental panel shall remain up for a maximum of 30 days unless otherwise specified.
- (e) Where parts of a mile are designated on a sign, fraction to the nearest 1/2-mile shall be used instead of decimals.
- (f) In areas where longitudinal paving joints are left exposed to traffic, warning signs shall be erected indicating UNEVEN PAVEMENT. For sign placement, see MDOT SHA Standard No. MD 104.06-15 thru MD 104.06-20.
  - (1) They shall be placed in advance of the uneven joints and spaced at appropriate 1500' intervals throughout the area of the uneven joint.
  - (2) In areas of exposed lateral paving joints, the warning sign message shall be BUMP (W8-1).

- (3) When milling a pavement, (removing the top layer to smooth the roadway) a ROUGH ROAD (W8-8) sign or a GROOVED PAVEMENT W8-8(1) sign shall be the warning message.
- (g) Along two and three-lane, two-way roadways where a standard centerline is not provided and passing is not permitted (due to resurfacing, etc.), DO NOT PASS (R4-1) signs shall be erected at the beginning of such zones along the right side and at appropriate intervals throughout the project. For sign placement, see MDOT SHA's Standard No. MD 104.06-14.
  - (1) A NO PASSING ZONE pennant (W14-3) shall be erected at the beginning of such zones on the left-hand side of the roadway across from the first DO NOT PASS sign.
  - (2) The NO PASSING ZONE pennants shall be used only at the beginning of such zones and shall not be placed at intermediate points throughout the zone.
  - (3) Standard no passing centerlines may be installed at the direction of the Engineer or Inspector if site conditions (at a particular location) or past accident history indicates that this would be a prudent thing to do.
- (h) When complete pavement markings are not in place, and passing may be permitted, sign(s) shall be erected indicating WARNING: PASSING ZONES UNMARKED W14-3(1) with supplemental plate "NEXT X MILES".
  - (1) These signs shall be placed in advance of the unmarked zone and at appropriate intervals throughout the unmarked zone where passing is permitted.

**001.03.04.18 Pavement Drop-off.** During construction and maintenance activities involving pavement surfacing and resurfacing work, including shoulders, it often becomes necessary to maintain traffic along side or near lanes and shoulders having different elevations (drop-offs). Special traffic control devices are needed to safely protect and guide traffic through such areas. The following are the traffic control requirements for pavement drop-off situations:

**(a) Uneven Joints For Traffic Crossings:**

Uneven joints where traffic can be anticipated to cross (i.e. intersections) are to be tapered with a minimum of two (2) feet of a bituminous concrete product for the entire width of the travel lane crossing.

**(b) Pavement Drop-offs of 2 ½ Inches or Less (between Traffic Lanes):**

- (1) Adjacent pavement elevation differences, drop-offs, of 2 ½ inches or less may be freely crossed by traffic.
- (2) Drop-offs of 2 ½ inches or less shall be indicated to traffic through the use of the UNEVEN PAVEMENT warning signs placed in advance of and repeated throughout the limits of the drop-off in accordance with the Book of Standards for Highway & Incidental Structures, Standard No. MD 104.06-15. When needed, the GROOVED warning supplemental sign plate shall be mounted below each sign. The sign size and spacing, and how it complements other traffic control devices is covered in the Standard Specifications for Construction and Materials and the MdMUTCD.

- (3) The UNEVEN PAVEMENT warning sign is to be placed supplemental to other work zone traffic control. The sign size and spacing, and how it complements other traffic control devices is covered in the Standard Specifications for Construction and Materials and the MdMUTCD.
- (4) Temporary transverse tie-in transitions during the paving operation shall be in accordance with Standard Specifications for Construction and Materials Section 504.03.10 (2017 Spec book). The transverse tie-in shall be completed prior to traffic being allowed on the pavement.

**(c) Pavement Edge Drop-offs of 2 ½ Inches or Less (between Traffic Lanes and Shoulder):**

- (1) Pavement edge drop-offs of 2 ½ inches or less shall be in compliance with the Book of Standards for Highway & Incidental Structures, Standard No. MD 104.06-16.
- (2) UNEVEN PAVEMENT warning signs shall be placed in advance of and repeated throughout the limits of the drop-off in accordance with Standard No. MD 104.06-16. The UNEVEN PAVEMENT warning sign is to be placed supplemental to other work zone traffic control. The sign size and spacing, and how it complements other traffic control devices is covered in the Standard Specifications for Construction and Materials and the MdMUTCD.
- (3) Temporary transverse tie-in transitions during the paving operation shall be in accordance with Standard Specifications for Construction and Materials Section 504.03.10 - Tie-in. The transverse tie-in shall be completed prior to traffic being allowed on the pavement.

**(d) Pavement Drop-offs of Greater Than 2 ½ inches (between Traffic Lanes):**

- (1) Adjacent pavement elevation differences, drop-offs exceeding 2½ inches shall be paved to match with the abutting lanes or shoulders on the same working day in accordance with Standard Specifications for Construction and Materials Section 504.03.09 (2017 Spec Book). As a result of this, the complete pavement section including shoulders shall be at the same elevation at the end of each working day.
- (2) Drop-offs of 2½ inches or less shall be indicated to traffic through the use of the UNEVEN PAVEMENT warning signs placed in advance of and repeated throughout the limits of the drop-off in accordance with Standard No. MD 104.06-15. When needed, the GROOVED warning supplemental sign plate shall be mounted below each sign.
- (3) The UNEVEN PAVEMENT warning sign is to be placed supplemental to other work zone traffic control. The sign size and spacing, and how it complements other traffic control devices is covered in the Standard Specifications for Construction and Materials and the MdMUTCD.
- (4) While it is intended that traffic traveling in the same direction drive to one side of the drop-off or the other, such traffic may be permitted to drive along both sides under properly controlled conditions, but such traffic may not be permitted to freely cross.

- (5) Temporary transverse tie-in transitions during the paving operation shall be accordance with Standard Specifications for Construction and Materials Section 504.03.10. The traverse tie-in shall be completed prior to traffic being allowed on the pavement.

**(e) Pavement Edge Drop-offs Greater Than 2 ½ Inches, But Equal to or Less Than 5 Inches (between Traffic Lanes and Shoulder):**

- (1) Drop-offs between lane and shoulder or shoulder and earth grading, exceeding 2 ½ inches, but equal to or less than 5 inches shall be provided with an abutting wedge with a slope of 4:1 or flatter at all times while no work is being performed as referenced in the Book of Standards for Highway & Incidental Structures, Standard No. MD 104.06-17.
- (2) Drums or other suitable channelizing devices are used to mark the area even when a traversable wedge is in place.
- (3) Drop-offs exceeding 2 ½ inches, but equal to or less than 5 inches shall be indicated to traffic through the use of the UNEVEN PAVEMENT warning sign placed in advance of and repeated throughout the limits of the drop-off in accordance with Standard No. MD 104.06-17.
- (4) The UNEVEN PAVEMENT warning sign is to be placed supplemental to other work zone traffic control. The sign size and spacing, and how it complements other traffic control devices is covered in the Standard Specifications for Construction and Materials and the MdMUTCD.

**(f) Pavement Edge Drop-offs Greater Than 5 inches WITHOUT an Adjacent Lane Closure:**

- (1) Continuous drop-offs exceeding 5 inches if next to or within 12 feet of a lane of traffic, shall be provided with a temporary concrete barrier or other suitable barrier as may be approved by the District Utility Engineer or Inspector, to preclude crossing the drop-off throughout its entire length. See the Book of Standards for Highway & Incidental Structures, Standard No. MD 104.06-18.
- (2) The sign size and spacing, and how it complements other traffic control devices is covered in the Standard Specifications for Construction and Materials and the MdMUTCD.

**(g) Pavement Edge Drop-offs Greater Than 5 Inches WITH an Adjacent Traffic Control:**

- (1) Continuous drop-offs exceeding five (5”) inches, but greater than twelve (12’) feet away from traffic (and not protected with an approved barrier) shall be provided with an abutting wedge with a slope of 4:1 or flatter at all times while no work is being performed. See the Book of Standards for Highway & Incidental Structures, Standard No. MD 104.06-19.
- (2) Drums or other suitable channelizing devices are required to mark the area. When traffic is permitted to occupy the adjacent lane(s) to this work, drums or other suitable channelizing devices shall be placed in front of and completely across the



excavated area, in addition to the traffic control requirements for the lane or shoulder work.

- (3) For a series of drop-offs within a lane or shoulder, typically as a result of concrete joint or pavement repair, all areas where the pavement material has been removed shall be repaired the same working day.
- (4) The decision to use a positive barrier to separate the workspace from traffic will be determined by the Utility Permit Inspector. The Inspector should consider such things as traffic volumes, vehicle speeds and weaving, trucks, highway geometrics, length of workspace, duration of work, etc.
- (5) The sign size and spacing, and how it complements other traffic control devices is covered in the MDOT SHA Standards and Specifications and the MdMUTCD.

**001.03.04.19 Traffic Markings, Signing, Lighting, and Signalization:**

- (a) Traffic signs are not to be removed or relocated without permission of the District Utility Engineer.
- (b) The Permittee is to exercise extreme caution when in the vicinity of signalized intersections so as to protect and maintain in good work order, all traffic signal poles, wires, conduits, and equipment associated with traffic signalization.
- (c) All pavement markings and symbols shall be completely replaced immediately upon the completion of milling or resurfacing, prior to the reopening to traffic.
- (d) The Permittee shall inventory existing pavement markings in the work area prior to disturbance and application.
- (e) Pavement marking material shall be submitted to the MDOT SHA for approval prior to application.
- (f) The Permittee shall submit a pavement marking plan and the name of the pavement marking sub-contractor to the District Utility Engineer for approval prior to the start of pavement work.

**001.03.05 SAFETY.**

**001.03.05.01 Excavation.**

- (a) Cuts or excavations will not normally be permitted to remain open overnight and at any time when work is not in progress at the cut or excavation area. The Permittee should excavate only as far as can be backfilled in the same working day.
- (b) If a trench must remain open during non-working hours, it must be steel plated or protected by a positive barrier. Existing guardrail, permanent concrete barrier, or temporary concrete barrier wall will be required to meet OSHA, MOSH, and MDOT SHA regulations. Suitable protective measures approved by the MDOT SHA, will be required at any excavation.
- (c) No excavated or construction material shall be stored within thirty feet (30') of the edge of the existing traveled pavement. Material shall be stored in a way, which does not reduce driver sight distances nor interfere with roadway drainage.

- (d) All equipment and material shall be removed from the MDOT SHA ROW or located a minimum of thirty feet (30') from the edge of the existing traveled pavement of MDOT SHA roadway during non-working hours and when not being used in daily construction operations unless it is stored behind a positive protective barrier. In no case will construction material or equipment be allowed to remain in the median or a divided highway when the materials or equipment is not in use.
- (e) All mud and debris tracked or spilled on the state highway shall be removed promptly to eliminate potential hazards.
- (f) Precautions shall be taken, particularly in freezing temperatures, to keep water off the traveled lane.
- (g) No access is permitted from interstate roadways or from any connecting ramp for purposes of construction, maintenance, or expansion to another facility.
- (h) Private automobiles and non-essential construction vehicles are not allowed to be parked on the MDOT SHA ROW. The Permittee must transport workers to the job site from a safe parking site procured by the Permittee.
- (i) All work areas are to be continuously maintained in a neat and clean condition.
- (j) Guy wires within six (6') feet of the ground will be sheathed in heavy high visibility plastic tubing.
- (k) Appropriate protective measures, approved by the MDOT SHA, including warning signs, safety fence, and barricades, shall be placed at all excavations.
- (l) The Permittee shall take all necessary precautions to protect the traveling public, pedestrians, and workers, including ADA compliance, as necessary. Information about MDOT SHA's ADA requirements can be found in MDOT SHA's Accessibility Guidelines for Pedestrian Facilities along State Highways located on the MDOT SHA website at: <http://www.roads.maryland.gov/Index.aspx?PageId=26>.
- (m) The MDOT SHA may halt any operation it considers to be in any manner detrimental to the safe operation of MDOT SHA's highway system.
- (n) The Permittee shall maintain vertical and horizontal clearances from all existing utility facilities as required by the respective utility agencies.

#### **001.03.06 PROTECTIONS OF HIGHWAYS.**

**001.03.06.01 Materials and Equipment.** No metallic tread equipment shall be driven or towed on any MDOT SHA road surface or surfaced shoulder. Material or equipment not provided with wheels will not be dragged or skidded across paved surfaces. No excavated or backfill materials are to be placed or stockpiled on any improved surface within the jurisdiction of the MDOT SHA (or within MDOT SHA rights-of-ways). The excavation of any MDOT SHA roadway, which has been recently resurfaced, shall be strictly prohibited for a period of two (2) years from the date the resurfacing has been accepted for maintenance unless approved in writing by the appropriate District Utility Engineer.

**001.03.07 QUALITY CONTROL.**

MDOT SHA inspectors shall be authorized to inspect all work performed and all material furnished under this permit which may impact safety, integrity of the roadway or restoration of the MDOT SHA's ROW to the complete satisfaction of the MDOT SHA. Such inspection may extend to all or any part of the work and to the preparation, fabrication, or manufacture of the materials to be used as per MDOT SHA's Standard Specifications for Construction and Materials, Sections GP-5.01 AUTHORITY OF THE PROCUREMENT OFFICER and GP-5.07 AUTHORITY AND DUTIES OF INSPECTORS.

- (a) At MDOT SHA's discretion, the MDOT SHA may assign inspection forces to the Permittee's work being performed within MDOT SHA's ROW at the expense of the Permittee as per Section 001.03.01 (o) Right to Inspect. The Permittee shall provide the MDOT SHA inspector with an intended work schedule and shall inform the MDOT SHA inspector of any subsequent changes to the schedule. The MDOT SHA reserves full control over said roads, highways, and rights-of-ways and the subject matter of this permit.
- (b) The Permittee, or the Permittee's contractor or subcontractor, if authorized by the Permittee to carry out the work allowed under a Complete Authorized Utility Permit on behalf of the Permittee, shall be responsible for providing effective on-site supervision at all times to ensure compliance with all plans and permit specifications, regulations, and conditions. All work areas are to be continuously maintained in a neat and clean condition. The Permittee will be responsible for maintaining its facilities installed within MDOT SHA ROW in a safe working condition.
- (c) The Permittee shall be responsible to respond to and correct citizen complaints regarding work performed adjacent to private properties immediately upon notification.

**001.03.07.01 Testing.**

- (a) The Permittee shall perform all testing required for all work performed under the Individual Work Order Permit in accordance with all appropriate regulations and current applicable industry codes. The Permittee shall make available all test data and results to the MDOT SHA upon request of the MDOT SHA inspector. Depending on the type of work and site conditions, the MDOT SHA may require any additional tests or testing, at the MDOT SHA's discretion, at the Permittee's expense.
- (b) The additional applicable testing required, if applicable, may include, but not limited to, compaction or pavement surface profile testing or geophysical surveys to detect subsurface voids for work performed under the Individual Work Order Permit.
- (c) The MDOT SHA may require, if applicable, the collection of video imagery of any drainage or open pipe systems running within MDOT SHA rights-of-ways and to provide that video imagery to the MDOT SHA for review.
- (d) All piping installed within the MDOT SHA ROW shall be tested as required by USDOT – Pipeline and Hazardous Materials Safety Administration.
- (e) Carrier pipes of all pressurized utilities shall be pressure tested before start-up in accordance with all appropriate regulations and current applicable industry codes.

**001.03.08 CONSTRUCTION.** All work must be performed in complete conformity with the approved construction plans.

- (a) All changes, modifications, or alterations to the approved construction plans must be submitted in writing to the District Utility Engineer for review and approval. Attachments to bridges and other structures are prohibited unless specifically authorized in individual permit applications. Open cutting of any paved surface is strictly prohibited except when authorized by individual permit applications. The adjustment and/or relocation of any public, private, or MDOT SHA owned facility or utility required by work performed in accordance with this permit will be the complete responsibility of the Permittee.
- (b) The Permittee is responsible to verify the location of all existing buried facilities within or adjacent to the work area to prevent damage to existing utilities. The Permittee is responsible for maintaining vertical and horizontal clearances from all existing utility facilities as required by the respective utility agencies.
- (c) The Permittee shall take all necessary measures to protect any facilities owned or maintained by the MDOT SHA while performing any work within MDOT SHA rights-of-ways.

**001.03.09 EXCAVATION.**

**001.03.09.01 Trenching.** All excavations and trenching shall be performed in complete accordance with all requirements set forth by OSHA, MOSH, and MDOT SHA regulations.

- (a) When the MDOT SHA allows excavations within MDOT SHA rights-of-ways, the Permittee shall minimize excavations performed within pavement areas. All excavations, open cuts, or trenching to be performed across pavement areas shall be saw cut to the full depth of the pavement prior to removal.
- (b) Sheet piling, shoring, and/or bracing shall be required for any excavations or trenches within the Roadbed Area of Influence per the MDOT SHA's Utility Policy- Chapter 4- Section 4.07.02; as required by MOSH and/or OSHA; and/or as determined by the MDOT SHA to prevent failure of the embankments and to maintain safe access.
- (c) Cuts or excavations will not be permitted to remain open at the end of a work shift, or when work is not actively in progress. For excavations that cannot be closed the same day as opened, the MDOT SHA may require the following: steel plates; installation of concrete barriers and impact attenuators; and/or any other measures deemed appropriate by MDOT SHA to maintain the safety of the excavation. In addition, the perimeter of all open excavations such as access, working or receiving pits shall be secured using chain link fencing or other approved pedestrian protection along with orange safety fencing suitably installed.
- (d) All spoil material is to be completely removed from MDOT SHA ROW. The Permittee will be responsible for repairing any damage due to settlement of backfill.

**001.03.09.02 Sheet piling.** In order to prevent failure of the embankments and to maintain safe access sheet piling, shoring, and/or bracing shall be required for any excavations within the Roadbed Area of Influence as per MDOT SHA's Utility Policy- Chapter 4, Section 4.07.02;

within the Zone of Influence of any structure as per MDOT SHA's Utility Policy - Chapter 9 - Figure 9.04-1 – Zone of Influence; as required by MOSH and/or OSHA; and/or as determined by the MDOT SHA.

- (a) Tight sheeting will be required where the distance off the roadside edge of any excavation is less than the depth of the excavation. The roadside face must be tightly sheeted and braced securely against skeleton sheeting on the opposite or far side of the excavation. The Permittee shall install all tight sheeting in accordance with all OSHA, MOSH, and MDOT SHA regulations. Sheeting shall be furnished and installed as per MDOT SHA's Standard Specifications for Construction and Materials, Sections 402.03, 402.04.02, & 405.03. All sheeting must be completely removed upon the completion of excavation and backfill activities.
- (b) Metal sheeting systems may be used with prior approval of the MDOT SHA and pulled only as tamped fill progresses. If the excavation is to be left open, it shall be tight sheeted, and the Permittee must notify the MDOT SHA Permit Inspector.
- (c) A trench box support may be used with the prior approval of the MDOT SHA.

**001.03.09.03 Steel Plates.** Whenever steel plates are required, the following provisions will apply:

- (a) For non-emergency situations the Permit Inspector must be notified at least 48 hours in advance of any steel plates being placed in the roadway.
- (b) Steel plates are to be monitored and maintained by the Permittee as agreed to by the MDOT SHA, which may be at least twice daily, seven (7) days a week including, but not limited to nights, weekends, holidays, and snow events until they are removed. Steel plates will not be left in the roadway longer than seven (7) calendar days without prior written permission of the MDOT SHA.
- (c) Steel plates shall be installed as per MDOT SHA's Book of Standards for Highway & Incidental Structures, Standard No. MD 104.01-85, Steel Plate – Method 1, Greater Than 40 mph; or Standard No. MD 104.01-86, Steel Plate – Method 2, Equal To or Less Than 40 mph as appropriate.
- (d) Steel shall conform to the current ASTM A36 standard. All steel plates must be at least one (1") inch thick and sized to effectively carry traffic with a maximum one (1") inch deflection. Steel plates must be large enough to allow a minimum of one (1') foot of bearing on all four sides of the pavement surrounding the excavation and securely held in place with six (6") inch pins installed on all corners.
- (e) In the event that more than one plate is required, the steel plate shall be large enough to allow a minimum of two (2') feet of bearing on three (3) sides of the plate and securely held in place with pins installed on all corners of each plate. For trench widths equal to or greater than five (5') feet, the steel plate support system shall be designed and stamped by a Professional Engineer licensed in the State of Maryland and approved by the MDOT SHA. Steel plate bridging is prohibited on expressways and freeways.

**001.03.09.04 Multiple Steel Plates.** When placing multiple plates, the MDOT SHA shall determine which of the following methods may be used by the Permittee:

- (a) Two plates or more shall be welded together. This consists of placing three welds Twelve (12") inches in length on each abutting plate. One weld placed one foot from each edge and one weld placed in the center of the plate [six (6") inches from center in each direction]. All welds shall be performed by an American Welding Society certified welder, certified by the State of Maryland. Approach plates and ending plates shall be attached to the roadway by a minimum of one anchor pre-drilled into the corners of the plate and drilled a minimum two (2") inches into the pavement.
- (b) Two plates or more shall be held together. This consists of placing three six (6") inch by twelve (12") inch by one (1") inch blocks to one side of the plate. One block to be placed one (1') foot from each edge and one block placed in the center of the plate. The two end blocks on the underside of the plate, the middle block to be placed on the topside of the plate.

**001.03.09.05 Steel Plate Safety Measures.** To minimize the hazard to the traveling public, the use of a bituminous concrete product is required on all exposed edges of the plates to ensure a smooth transition from the pavement to the surface of the steel plate. The material must be tapered from the height of the steel plate to the existing road surface and extend a minimum distance of one (1') foot to provide a suitable taper.

- (a) At the sole discretion of the MDOT SHA, the Permittee may be required to recess the steel plate such that the top of the steel plate is flush with the surrounding pavement and pinned in place. For roadways with travel speeds greater than 40 mph, the steel plates shall be required to be recessed.
- (b) Plates must be removed from the MDOT SHA ROW within twenty-four (24) hours once they are removed from the roadway. Plates may never be left within the roadway, shoulders, or any other area within the ROW, which could jeopardize motorist safety.
- (c) Should an emergency condition occur that MDOT SHA forces must correct, the Permittee shall be charged for any and all costs, including but not limited to; labor, equipment, overtime, overhead, inspection, etc., associated with restoring the condition to a safe and acceptable level. The Permittee shall be responsible for any additional costs incurred by the MDOT SHA for emergency repairs performed during snow emergencies.

**001.03.09.06 Sign Requirements.** Sign requirements for steel plates are as follows:

- (a) "STEEL PLATE:" warning signs, W8-8(4), shall be 48" x 48" and shall conform to the MdMUTCD and Maryland's Sign Standard Book.
- (b) When steel plates are used to bridge open cut excavations within MDOT SHA pavement areas, signs shall be placed approximately 500 feet in advance of the steel plates.
- (c) Location and spacing of these signs will depend on field conditions and is subject to approval by the MDOT SHA's Permit Inspector.
- (d) The identification of the Permittee, contact individual, and 24-hour telephone number shall be clearly marked on the rear face of the "STEEL PLATES" warning sign.
- (e) From October through April, steel plates shall be additionally identified by the placement of a grade stake located at the pavement edge immediately adjacent to the steel plates for

identification during snow events. The stake is to be at least three (3') feet high, painted international orange and must be visible to the traveling public.

- (f) The identification of the Permittee must be clearly marked in orange paint on the surface of the steel plate or adjacent roadway.
- (g) Permittee Identification Signs. The Permittee is required to install signs identifying their organization and telephone number. Signs shall be at least 14" in height by 22" in width. Signs shall have white letters and numerals on a dark blue background and must provide all of the following information:
  - (1) The name of the owner of the Permittee.
  - (2) The name of the contractor that is performing the work.
  - (3) A 24-hour telephone number for the contractor.
  - (4) Overall dimensions may be modified to fit the name of the Permittee with approval of the appropriate District Utility Engineer (or approved designee).
  - (5) The number and spacing of these identifying signs shall be subject to the approval of the MDOT SHA District Utility Engineer.
  - (6) MDOT SHA facilities will not be used to provide or install the signs or their supports.
  - (7) Identifying signs shall be erected immediately before the start of the Permittee's work operations and must be removed immediately upon completion of permanent construction and restoration.

**001.03.10 BLASTING.** All blasting operations, including the storage and handling of explosives and blasting agents, shall be performed in conformance with the applicable provisions of Section TC-6.07 and Section 201.03.04(b)(c) of the Maryland Standard Specifications for Construction and Materials, Dated July 2017.

**001.03.10.01 Requirements.**

- (a) Blasting within MDOT SHA ROW is strictly prohibited without prior approval. To obtain authorization, a blasting plan (of type, charge, pattern, and method) must be submitted for approval a minimum of forty-five (45) days in advance of the anticipated commencement of work. Blasting cannot begin until the blasting plan is approved and authorized by the MDOT SHA and all other appropriate agencies.
- (b) A (Maryland) licensed blaster is required to perform all blasting work associated with the work to be accomplished under the terms of this permit. The Permittee is required to furnish proof of a Maryland Blaster's License before beginning any blasting operations.
- (c) The Permittee may be required to provide proof of additional insurance in an amount to be specified by the MDOT SHA prior to commencing any blasting activity.
- (d) The District Utility Engineer must be notified three (3) business days prior to beginning any blasting work.
- (e) All blasting is to be performed in complete compliance with the approved blasting plan.

- (f) Blasting is not to be performed within one hundred (100') feet of any residence or structure.
- (g) A thorough site inspection, including representatives of the MDOT SHA, the Permittee, and other affected parties shall be conducted prior to the commencement of blasting. The existing conditions of all culverts, inlets, retaining walls, and other structures is to be fully documented using photographs and/or videotape supplied at the expense of the Permittee. A copy of a complete set of this documentation is to be provided to the MDOT SHA District Utility Engineer prior to the commencement of blasting. A follow up inspection is to be performed upon the completion of blasting to identify any new damage to existing facilities. All damage to existing facilities shall be repaired to the complete satisfaction of the MDOT SHA at the sole expense of the Permittee. All necessary repair or replacement work is to begin immediately and be completed as soon as practicable.
- (h) The Permittee is solely responsible to resolve to the complete satisfaction of the MDOT SHA all damage claims resulting from any activity associated with blasting performed under this permit. The Permittee shall be required to repair or replace all facilities damaged by blasting operations at no cost to the MDOT SHA.
- (i) All shots shall be matted to control flying rock and debris so as to prevent damage to persons or structures.
- (j) Equipment used for drilling blast holes shall use a positive means of dust control.
- (k) Seismic readings may be required to monitor blasting operations. When required, a copy of readings indicating peak particle velocities shall be made available to a representative of the MDOT SHA after each shot.
- (l) Blasting shall not be performed closer than fifty feet (50') from any water, gas, sewer, cable, or conduit unless said facilities have been completely exposed, definitively located and suitably backfilled prior to blasting in strict accordance with the specific requirements of the representative utility agencies. In no case will blasting be permitted closer than two (2') feet from any utility facility ten (10") inches or smaller in diameter, and no closer than five (5') feet from any utility facility larger than ten inches in diameter.
- (m) All possible caution is to be exercised to ensure that drilling and blasting operations minimize overbreak and blast damage to adjacent unexcavated ground.
- (n) All blasting is to be carefully balanced and controlled to provide a uniform distribution of charge that will fracture the rock so that it may be excavated to the required contours without fracturing rock beyond the excavation limits. Modify the blasting round as necessary to achieve the best obtainable results and to keep the air blast over pressure, vibrations and noise within the limits herein specified. It shall be the Permittee's responsibility to produce a satisfactory excavated surface by determining the proper relationships of the factors of burden, spacing, depth of charge, amount and type of explosive, hole size, and delay pattern, and other necessary considerations to achieve the required results.



- (o) Controlled blasting is a method used to remove rock in which the various elements of the blast, hole, size, depth, spacing, burden, charge size, explosive charge weight per delay, distribution, and delay sequence, are carefully balanced and controlled to provide a distribution of the charge that will fracture the rock so it may be excavated to the required contours and minimize overbreak and fracturing of the rock beyond the contour line. Smooth wall blasting, pre-splitting, cushion blasting, and line drills are examples of operations included in the term “controlled blasting”.
- (p) The Permittee shall be responsible for providing material to replace broken rock that is unsuitable for trench backfill use.
- (q) In the event that air blast pressure, vibration, noise, flying debris, or over breakage exceed specified limits, all blasting operations are to be immediately suspended until a modified blasting plan is submitted and approved.
- (r) All blasting shall comply with MDOT SHA’s Standard Specifications for Construction and Materials, Section TC-6.07- Use of Explosives.

**001.03.11 TEST HOLES & TEST PITS.** All test holes and/or test pit excavations performed within the MDOT SHA ROW shall be in accordance with Standard Specifications for Construction and Materials, Section 205 - Test Pit Excavation, Section 210 – Tamped Fill, and Standard Specifications for Subsurface Explorations.

- (a) All test holes performed in pavement areas shall be by saw cut an area not to exceed Twelve (12”) by twelve (12”) square and then shall be excavated by the vacuum method. Test holes shall be of the size, depth, and location in accordance with Title 12 (Miss Utility) location requirements as approved by the MDOT SHA and restored by tamped six (6”) lifts and sealed with approved cold mix asphalt.
- (b) All test pits should generally be 3-feet to 4-feet square or rectangle dimensions depending upon the depths of the excavation needed. However, all test pit excavations shall be kept to the minimum required for satisfactory completion of the work. Test pits shall be of the size, depth, and location as approved by the MDOT SHA.
- (c) All damaged paving shall be repaired with flowable fill or other MDOT SHA approved material and replaced in kind as soon as practicable and to the satisfaction of the MDOT SHA.
- (d) At the discretion of the District Utility Engineer, the Permittee shall completely backfill test holes to match existing grade with non-shrink grout. Repairs are to be completed within forty-eight (48) hours.
- (e) When a Permittee open cuts or excavates for test holes and/or test pits in the pavement of a state roadway, the cut shall be marked with the appropriate color code as designated by Miss Utility (see section 001.03.19 – MARKING ROAD REPAIRS). The initials of the Permittee are required to be painted within the cut area.
- (f) The MDOT SHA reserves the right to require the Permittee to mill and overlay the roadway due to the amount and location of the said test pits.

**001.03.12 TRENCHLESS INSTALLATIONS.**

**001.03.12.01** Trenchless installation activities are to be performed in complete accordance with submitted plans and specifications approved by the MDOT SHA. The Permittee assumes responsibility in the event of any roadway failure to replace any or all pavement as required in the opinion of the District Utility Engineer and/or Resident Maintenance Engineer's Office. The Permittee shall submit, with the Utility Permit Application of any proposed trenchless installation within MDOT SHA rights-of-ways. Plans should\* be signed by a Professional Engineer licensed in the State of Maryland. Prior approval from the MDOT SHA shall be obtained prior to any construction using any method of trenchless installation. All materials used shall be adequate for the intended purpose and method of installation; and shall be approved by the MDOT SHA. \* Refer to the MDOT SHA Utility Manual Section 1.01.02 Terms and Definitions.

**001.03.12.02 Tunneling.** All plans for tunneling operations must be approved/signed by a Professional Engineer licensed in the State of Maryland. For any proposed tunneling within MDOT SHA rights-of-ways, the Permittee shall submit a request for review and approval from both the MDOT SHA Office of Structures and the appropriate District Utility Engineer (or approved designee).

- (a) The Permittee shall have approved plans, and approval of a method to support the face and periphery of the excavation, before doing any work.
- (b) A heavy timber shaft at either end of the tunnel must be provided in order to prevent failure of the embankments and to maintain access to the tunnel. The tunnel liner plates shall be installed by tunnel methods using an approved method to support the face and periphery of the excavation, of which, all supports shall be adequately strong, braced, and shored. This support shall be maintained during non-working hours in order to prevent cave-ins. Access shafts are required at both ends of the tunnel.
- (c) Tunnel excavation shall be advanced in increments not to exceed two (2') feet. Tunnel liner plates shall be installed immediately upon the completion of each excavation increment. Excavation is to be conducted so that the voids behind the tunnel liner plates are kept to a minimum.
- (d) Voids behind tunnel liner plates are to be filled with grout placed under pressure. At least two (2) grout plugs are to be provided per ring to appropriately fill all voids. Grouting is to begin as soon as a sufficient length of tunnel liner plate has been installed to insure a proper seal. Grouting is to proceed progressively with each adjacent set of holes provided in liner plates. All voids shall be completely filled prior to the end of each shift.
- (e) Bulkheads must be sufficiently secured to ensure proper seal and prevent the leakage of grout under pressure. Grouting equipment shall have a minimum capacity of one-half (½) cubic yard to assure that adequate grouting material is available within a reasonable period of time to avoid the setting up of grout from the previous batch. Upon the completion of grouting, all holes are to be plugged with an appropriate fitting provided.
- (f) Access to the shaft is to be protected at all times to deny unauthorized pedestrian entry. Since the definition of tunneling compared to other trenchless technologies is that workers are present inside the tunnel, the safety of the operators is most important. The

Permittee shall operate and maintain an installed ventilation system to meet all OSHA, MOSH, and other pertinent safety requirements for the duration of the tunnel project.

- (g) Approval for any proposed tunneling shall be from the appropriate District Utility Engineer (or approved designee) via the Complete Authorized Utility Permit unless work is 3rd Party Utility Work incorporated into the MDOT SHA's construction project.

**001.03.12.03 Jacking & Boring.** All plans for jacking and boring operations must be reviewed and stamped by a Professional Engineer licensed in the State of Maryland.

- (a) A heavy timber shaft at either end of the jacking pit is required to prevent embankment failure and maintain access to the pit. This support shall be continuously maintained to prevent cave-ins. Pipes and sleeves shall have sufficient length to extend beyond the ditchline or shoulder edges as directed by the MDOT SHA. Excavation in shoulder areas to push or install pipes or sleeves is prohibited. For jacked and bored pipe crossings under MDOT SHA roadways, the bore hole diameter is not to exceed the outside diameter of the pipe or sleeve.
- (b) The jetting of pipes or sleeves is not permitted.
- (c) The allowable jacking strength capacity of the casing pipe shall be capable of withstanding the maximum jacking forces imposed by the operation. Steel casing pipe shall have minimum yield strength of 35,000 psi. To prevent cave-ins, pipes and sleeves shall be installed simultaneously with augering. In the event of a false start, the void will be backfilled by grouting or other method approved by the MDOT SHA.
- (d) The Permittee is responsible to repair or replace any pavement area or areas damaged as a result of jacking and boring operations. The extent of repairs or replacement shall be determined at the sole discretion of the MDOT SHA. Repairs or replacement shall be performed immediately.
- (e) Jack and bore pits shall be protected at all times to prohibit unauthorized vehicular and pedestrian access.
- (f) The minimum allowable depth of a Jack and Bore installed casing pipe under the road and shoulder surface is five (5') feet. Any deviation shall require prior approval from the appropriate District Utility Engineer (or their approved designee). In locations where the road surface is super elevated, the minimum depth of the bore shall be measured from the lowest side of the pavement surface. In addition, a minimum three (3') foot depth shall be maintained in all other features including ditch bottoms unless otherwise directed by the appropriate District Utility Engineer (or their approved designee).
- (g) Upon completion of the work, the Permittee shall remove and properly dispose of all excess materials and equipment from the work site.

**001.03.12.04 Directional Boring.** All plans for directional-boring operations should\* be approved and stamped by a Professional Engineer licensed in the State of Maryland. \* Refer to the MDOT SHA Utility Manual Section 1.01.02 Terms and Definitions.

- (a) As per the standard for horizontal directional drilling, a minimum of three (3') foot cover within non-controlled access ROW and five (5') foot cover within controlled access ROW is required from existing grade to the top of all buried cables and ducts and must be

maintained under paved sections. The top of all cables and ducts must be buried a minimum of five feet below streambeds when crossing waters or wetlands.

- (b) The discharge of all effluent resulting from directional boring operations is to be directed into a tank or truck and suitably disposed of at an authorized waste site.
- (c) Drilling sites shall be protected at all times to prohibit unauthorized vehicular and pedestrian access. Exposed cables and ducts at splicing locations are to be protected utilizing orange safety fence installed a minimum height of four (4') feet and as prescribed in Section 104.20.03 of the 2017 Standard Specifications for Construction and Materials. Perimeter safety fencing around ducts and cables is to be securely maintained at all times.
- (d) Support for exposed cables or ducts at splicing locations must be installed by the Permittee. The temporary attachment of cables or ducts to existing poles, signs, trees, or other existing fixed objects is strictly prohibited. Splicing and handhole installation is to proceed with cable or duct installation.
- (e) Unless otherwise agreed to by the Permittee and the MDOT SHA, and responded to with a written letter, restoration activities must be commenced within seven (7) days of the placement of cable or duct between each handhole location. Upon completion of the work, the contractor shall remove and properly dispose of all excess materials and equipment from the work site.

**001.03.12.05 Other Methods.** Prior approval from MDOT SHA must be obtained prior to any construction using any other methods of trenchless installation. The Permittee must request, in writing, permission from the MDOT SHA to use any other methods of trenchless installation, attaching plans and specifications for MDOT SHA's review.

### **001.03.13 EROSION & SEDIMENT CONTROL.**

#### **001.03.13.01**

- (a) All erosion and sediment control measures and devices shall be constructed in conformance with the 2011 Maryland Standards and Specifications for Soil Erosion and Sediment Control published by the Maryland Department of the Environment, Water Management Administration, and all revisions thereof.
- (b) The Permittee is required to install and maintain all sediment control devices specified in assigned job-specific permit or other permits which have or should have been obtained by the Permittee. The Permittee is solely responsible for securing all permits necessary to accomplish the work outlined in the assignment permit.
- (c) The Permittee is responsible for compliance with all state and local sediment control regulations.
- (d) All disturbed areas are to be temporary stabilized within 48 hours following completion of excavation activities.
- (e) Restoration and permanent stabilization of all areas is to be completed within seven (7) days of the completion of excavation activities.

- (f) The discharge of any material or liquid, other than clean water, into any drainage facility is strictly prohibited.
- (g) The discharge of any material or liquid into Waters of the United States is strictly prohibited.
- (h) Stabilized construction entrances are required for access to work areas adjacent to roadways. Construction entrances shall be shown on permit plans and are to meet the sight distance standards.
- (i) Any work or activity within twenty-five feet (25') of any wetland area is strictly prohibited.
- (j) All dewatering is to be performed utilizing an approved dewatering device, approved by a Maryland Professional Engineer, to ensure the removal of sediment from effluent.
- (k) All surface drains, swales, and ditches are to be maintained free of debris at all times.
- (l) The Permittee shall take all steps necessary to keep erosion and siltation into the MDOT SHA's right of way to a minimum during construction.
- (m) The Permittee shall avoid and minimize construction impacts to wetlands and waterways and shall restore affected areas to their preconstruction condition.
- (n) A MDOT SHA certified Erosion and Sediment Control Manager must be specifically designated for each permit application. The Erosion and Sediment Control Manager shall supervise implementation of the sediment and erosion plan for all work that involves soil disturbance or excavation. The Erosion and Sediment Control Manager shall possess current MDOT SHA certifications.
- (o) The MDOT SHA Quality Assurance Division provides quality assurance of erosion and sediment control devices in conformance with Section 308 of the 'Standard Specifications'.

**001.03.14 DRAINAGE.** All drainage structures must function while work is in progress, as well as upon completion of work. If damaged, storm drain facilities, including but not limited to pipe, inlets, headwalls, underdrain, and ditches etc., shall be replaced "in kind" by the Permittee in accordance with MDOT SHA publications heretofore referenced (Section 001.03.03.01 - DESIGN and CONSTRUCTION). Should any disturbances be made to the existing surface drain ditches, it will be necessary to restore the drainage ditches to their original condition by re-sodding or seeding and mulching, leaving them in a neat and orderly condition as determined by the MDOT SHA. Unpaved drainage ditches shall be restored in accordance with MDOT SHA's Standard Specifications for Construction and Materials, Category 300 - Drainage and MDOT SHA's Book of Standards for Highway & Incidental Structures, Category 300 - Drainage. All streambeds must be left free of debris so as to provide for a free flow of water at all times. Concrete ditch reconstruction shall be in accordance with the standards.

**001.03.15 VALVES AND MANHOLES.** The MDOT SHA shall not be responsible for repair of any damage to valves, manholes, or other structures, improperly installed and/or maintained by the Permittee, within the roadway or shoulder areas; or damage caused by others. The Permittee will assume the full responsibility for any injury or damage to MDOT SHA personnel

and equipment as a result of MDOT SHA equipment striking valves, manholes, or other structures, improperly installed and/or maintained by the Permittee such as during snow removal operations.

### **001.03.16 BACKFILL AND TEMPORARY PATCHING.**

#### **001.03.16.01**

- (a) **Backfill.** The Permittee shall backfill all excavated areas as per the approved permit drawings or as directed by the District Utility Engineer.
- (b) **Saw cuts.** All excavation across pavement areas is to be full depth saw cut prior to removal.
- (c) **Backfill placement.** For areas approved to be backfilled with excavated material or selected backfill material, all backfill is to be placed in horizontal layers not to exceed six (6") inches in depth. Each layer is to be uniformly tamped and compacted by means of a mechanical or vibratory compacting device in accordance with Standard Specifications for Construction and Materials Sections 210 Tamped Fill and 916 Soil and Soil Aggregate Borrow.
  - (1) **Excavating in pavement areas.** When the excavation is located within pavement areas, the backfill will be placed to within one foot of the bottom of the specified permanent patch depth; the remaining depth of the trench shall be temporarily backfilled with dense graded aggregate and compacted and approved by the MDOT SHA before permanently repairing the road.
- (d) **Flowable fill.** For areas approved to be backfilled with flowable fill, the Permittee shall place and cure the Controlled Low Strength Material as directed by the MDOT SHA and in accordance with MDOT SHA's Standard Specifications for Construction and Materials, Section 314 - Flowable Backfill. The Permittee will be required to mill and overlay after this process at the direction of the District Utility Engineer.
- (e) **Repairing disturbed areas.** The Permittee shall upon completion of backfilling the excavation, immediately repair all disturbed areas. The Permittee may temporarily patch the disturbed areas with the approval of the District Utility Engineer, otherwise all repairs will be permanent.
- (f) **Temporary repairs outside roadway.** Temporary repair of areas outside the paved section shall be restored to their original condition, and shall include replacing topsoil, seeding and other work in general conformance with the MDOT SHA Environmental Guide for District, Access and Utility Permits Applicants, and as specified in the landscape plan developed for the project, or as directed by the District Utility Engineer. All reconstruction shall be in accordance with MDOT SHA's Standard Specifications for Construction and Materials, Category 700 – Landscaping. Inspections will be performed by the Office of Environmental Design's Quality Assurance Division and Landscape Programs Division in conformance with MDOT SHA Standard Specifications.
- (g) **Temporary shoulder repair.** Temporary repair of shoulder areas after backfilling shall consist of a minimum of three (3") inches of cold patch placed into the excavated shoulder area and mechanically compacted as directed by the District Utility Engineer.

- (h) **Temporary roadway patching.** The MDOT SHA may, at its discretion, allow a temporary patch of roadway area for a short period of time, not to exceed thirty (30) days unless agreed to and responded to in writing between the Permittee and the MDOT SHA as long as the patching remains acceptable for driving conditions. The period of time is subject to weather conditions allowing for the work to be completed. Temporary repair of bituminous concrete areas after backfilling shall consist of a minimum of three (3") inches HMA placed into the excavated roadway area and mechanically compacted or as directed by District Utility Engineer.

**001.03.17 ROADWAY AND SHOULDER REPAIR AND RESTORATION.** Installation of underground utilities under paved roadways and shoulders may require repairing hot mix asphalt pavement or Portland cement concrete pavement. Repairs shall be completed meeting the requirements of sections 504 Asphalt Pavement, 505 Asphalt Patches, and 522 Portland Cement Concrete Pavement Repairs of the Maryland Standard Specifications for Construction and Materials dated 2017; and Standard No. 578.01 – Repairing Pavement Openings for Utility Trenches; Standard No. MD 578.03 – Permanent Patching for Flexible Pavement Using Approved Asphalt Mix; Standard No. 578.03-01 – Permanent Patching for Composite Pavement in the Book of Standards for Highway and Incidental Construction as follows:

**001.03.17.01**

- (a) **Permanent pavement repairs.** The Permittee shall permanently repair all roadway and shoulder areas (including intersecting roads and streets) in accordance with MDOT SHA's Book of Standards for Highway & Incidental Construction and MDOT SHA's Standard Specifications for Construction and Materials. MDOT SHA's Book of Standards for Highway & Incidental Construction, Standard 578.01 Repairing Pavement Openings for Utility Trenches is a minimum guideline only. The MDOT SHA reserves the right to change permit repair specifications to suit any changes that may occur on site.
- (b) **Pavement restoration.** Final pavement restoration is to occur within thirty (30) days of the completion of the work unless agreed to in writing between the Permittee and the MDOT SHA.
- (c) **Permanent roadway and shoulder repairs.** Permanent repair of shoulder and roadway areas excavated by the Permittee shall consist of the removal of any temporary repairs placed and must extend a minimum of two (2') feet beyond the limits of the excavation on all sides. The MDOT SHA may require resurfacing of the roadway up to a maximum of two hundred (200') feet on each side of a trench crossing a highway. This distance is a maximum and the appropriate District Engineer (or approved designee) may approve resurfacing down to a minimum of two (2') feet on each side of the excavation when road, traffic, and excavation conditions permit. All pavement repairs shall be as determined by the District Utility Engineer.
- (d) **Milling.** Milling and overlay of pavement surfaces may be required at the direction of the District Utility Engineer.
- (e) **Surface structure protection.** Exposed utility surface structures in milled areas are to be protected around their entire circumference with a minimum taper of two (2') feet of a bituminous concrete product.

- (f) **Overlay milled pavement.** Milled surfaces are to be resurfaced within seven (7) days.
- (g) **Restriping.** Traffic markings and symbols are to be replaced in milled and resurfaced areas prior to the reopening of pavement to traffic. Restriping of these areas with in-kind material will be completed immediately upon resurfacing entirely at the Permittee's expense.
- (h) **Settlement in roadway repair.** The Permittee will be responsible for a period of one (1) year for any settlement of any repair, even if the Permittee met the required compaction requirements during the backfilling and installation. At the discretion of the District Utility Engineer, the area of settlement must be cut out and replaced to match the existing profile.
- (i) **Concrete Roadway and/or Shoulders.** All concrete pavement disturbed is to be replaced with at least a ten (10') foot length of reinforced concrete patch or to the length required by MDOT SHA's Book of Standards for Highway & Incidental Construction, Standard MD 578.01 and placed in accordance with standard requirements of the MDOT SHA Specifications for Construction and Materials, Section 522 Portland Cement Concrete Pavement Repairs. Concrete Mix No. 9 per Standard Specifications for Construction and Materials Section 902.10 shall be used. Curing of the concrete patch shall be in compliance with the MDOT SHA's Specifications.
  - (1) **Extending the patch.** In the event the edge of the trench is within six (6') feet of a construction joint, the reinforced concrete patch must be extended to the construction joint. All trenches must be sawed full depth with a concrete saw. The roadway openings must be compacted as specified under "Backfill" Section of this permit.
  - (2) **Accelerator for Concrete Pavements.** When in the opinion of the MDOT SHA a concrete accelerator is required, the accelerator shall be approved by the MDOT SHA and used in accordance with manufacturer's specifications to obtain 350 psi split tensile strength within 12-16 hours.
- (j) **Bituminous Concrete Roadway and Shoulders.** All bituminous concrete pavement disturbed is to be replaced as indicated under Concrete Roadway, as shall be applicable, except that the length of concrete patch will be a minimum of six (6') feet and a minimum depth of ten (10") inches. The concrete patch shall be overlaid with HMA, placed and thoroughly compacted, in accordance with MDOT SHA's Standard Specifications for Construction and Materials Sections 504 – Asphalt Pavement and 505 – Asphalt Patches, MDOT SHA's Book of Standards for Highway and Incidental Structures Standard No. MD 578.01 and as directed by the District Utility Engineer.
  - (1) **Full Depth Bituminous Concrete Shoulders.** At the sole discretion of the MDOT SHA, pavement repairs to full depth bituminous concrete shoulders may be composed of a variable depth HMA base covered with two (2") inches of HMA surface SC. The total thickness of HMA used for shoulder repairs must be equal to or greater than the thickness of the existing shoulder pavement.
- (k) **Chip Seal Surface Treated Shoulders.** All Chip Seal Surface Treated Shoulders disturbed shall be replaced with twelve (12") inches of dense graded aggregate base, placed and compacted in two (2) horizontal lifts of thickness not exceeding six (6") inches and graded to match the existing shoulder slope. The Chip Seal Surface Treatment



shall be performed in accordance with MDOT SHA's Standard Specifications for Construction and Materials, Section 503 – Chip Seal Surface Treatment and as directed by the MDOT SHA. The Permittee shall maintain the disturbed shoulder area for a minimum of six (6) months after completion of all work.

- (l) **Dense Graded Aggregate Shoulders.** All unpaved stone shoulders disturbed by the Permittee's operations shall be repaired by the Permittee with twelve (12") inches of dense graded aggregate base in accordance with Standard Specifications for Construction and Materials Section 501, placed and compacted meeting the requirements of Standard Specifications for Construction and Materials, Section 501.03.10 - Compaction in two (2) horizontal lifts of thickness not exceeding six (6") inches and graded to match the existing shoulder slope. The material must have a dual treatment of calcium chloride consisting of one pound per square yard each treatment, with treatments 14-90 days apart as required in the opinion of the Permit Inspector. The Permittee shall maintain the disturbed shoulder area for a minimum of six (6) months after completion of all work.
- (m) **Driveway Entrances.** Private entrance aprons shall be replaced in accordance with MDOT SHA's Guidelines for Residential Entrances to State Highways and the Residential Permit Application Package. Commercial entrances damaged by the Permittee's activities shall be replaced in accordance with the Complete Authorized Utility Permit or as directed by the MDOT SHA. Pavement repair to existing driveway entrances are to be composed of material in type and thickness identical to that which existed prior to excavation. Existing concrete entrance aprons, if damaged, will be replaced in their entirety, using MDOT SHA Mix No. 6 concrete.

### 001.03.18 ROAD-SIDE RESTORATION.

#### 001.03.18.01 General.

- (a) **Replace, repair, or restore damaged property.** The Permittee will be responsible for replacing, repairing, or restoring anything removed or damaged as a result of any activity performed under this permit including but not limited to all curbs, medians, gutters, drains, fences, sidewalks, steps, rails, walls, signs, structures, crosswalks, mailboxes, etc. to their original condition to the complete satisfaction of the MDOT SHA and adjacent property owners.
- (b) **Remove, adjust, or relocate property.** Any removal, adjustment, or relocations of traffic barrier, guardrails, posts, or end treatments is strictly prohibited except when authorized by individual permit applications. Traffic barriers shall be replaced in accordance with MDOT SHA's Book of Standards for Highway & Incidental Structures, Category 6 – Shoulders; Standard Specifications for Construction and Materials, Section 604 - Concrete Traffic Barriers, Section 605 – Metal Traffic Barriers, and Section 605 - Traffic Barrier End Treatments; and Guidelines for Traffic Barrier Placement and End Treatment Design.
- (c) **Restore or replace fencing.** (Chain link) Fencing removed for construction is to be restored to its original condition. All fence openings shall be completely restored prior to the end of each working shift. Fences shall be replaced in accordance with MDOT SHA's Standard Specifications for Construction and Materials- Category 600 Shoulders,

and MDOT SHA's Book of Standards for Highway & Incidental Structures- Standards Nos. MD 690.01 thru MD 692.01 as applicable.

- (d) **Remove, adjust, or relocate traffic control devices.** The removal, adjustment, or relocation of signs, delineators, markers, crosswalks, and other traffic control facilities or devices is strictly prohibited except as specifically authorized by the Complete Authorized Utility Permit. MDOT SHA traffic control facilities or devices shall not be removed until immediately prior to the permit activity requiring removal and shall be replaced in their original locations immediately upon completion of said permit activity. MDOT SHA traffic control facilities or devices disturbed or damaged by the Permittee's activities shall be repaired, replaced, or otherwise restored to the satisfaction of the MDOT SHA in accordance with MDOT SHA's Book of Standards for Highway & Incidental Structures; Standard Specifications for Construction and Materials; and the Maryland Manual on Uniform Traffic Control Devices. Delineators removed for construction shall be replaced to their original height and position upon the immediate completion of activities in accordance with MDOT SHA's Book of Standards for Highway & Incidental Structures, Standard Nos. MD 665.01 thru MD 665.06; and the Maryland Manual on Uniform Traffic Control Devices.

#### 001.03.18.02 Curbs.

- (a) **Limits of replacing curbs.** Any existing curbs disturbed shall be replaced to the limits as indicated for concrete roadway repair with the exception that in the event the edge of the trench is within four feet (4') of a construction joint, the new concrete curb must be continued to said construction joint and must conform with the existing curbs, and to be constructed in accordance with MDOT SHA's Book of Standards for Highway & Incidental Structures and Standard Specifications for Construction and Materials.
- (b) **Concrete curb specifications.** Existing concrete curb or combination curb and gutter is to be replaced using MDOT SHA Mix No. 3 concrete to its original condition in accordance with the current version of the MDOT SHA Book of Standards for Highway & Incidental Construction, Standard Number MD 620.02, MD 620.02-1, and MD 620.03 as appropriate.
- (c) **Bituminous curb.** Existing bituminous curb is to be replaced to its original condition in accordance with the MDOT SHA Book of Standards for Highway & Incidental Construction, Standard Number MD 615.01.
- (d) **ADA.** Any existing curbs and/or combination curb & gutters disturbed shall be replaced in compliance with MDOT SHA's ADA policy.

#### 001.03.18.03 Sidewalks.

- (a) **Permanent sidewalk repairs.** Permanent repairs to concrete sidewalk shall consist of removal of the entire blocks of concrete sidewalk affected and the entire area replaced with MDOT SHA Mix No. 3 concrete (if applicable, type will be specified in job-specific permit), five (5") inches thick and finished to a true grade and alignment of the existing sidewalk – finished as now exists.
- (b) **Curb specifications.** All work and materials shall be in accordance with the requirements of the MDOT SHA's Standard Specifications for Construction and

Materials, Section 603- Sidewalks and MDOT SHA's Book of Standards for Highway & Incidental Structures, Standard Nos. MD 655.01 thru MD 655.22. It will be the Permittee's responsibility to contact the Permit Section of the Department of Public Works of the County affected to obtain any necessary permits for all work involving the disturbance of sidewalks.

- (c) **Accessibility requirements (ADA Compliance).** Both Maryland and Federal law require that new construction and reconstruction of any public facilities be done in a manner that ensures the facility is accessible by all users, including those with disabilities. Therefore, it is mandatory that work completed under this permit which includes construction or reconstruction of curbs, curb ramps, sidewalk/pedestrian walkways, crosswalks, or installation or modification of any type of obstructions contained within a sidewalk or pedestrian walkway be built in accordance with the MDOT SHA's Accessibility Policy and Guidelines for Pedestrian Facilities Along State Highways, available on MDOT SHA's Internet Site at [roads.maryland.gov](http://roads.maryland.gov). These requirements include providing a minimum sixty (60") inch width path of travel, clear of obstructions within or protruding into the sidewalk/pedestrian walkway. If an object within the limits of the construction already exists within the sidewalk/pedestrian walkway, every reasonable effort should be made to relocate the object as part of the work performed under this permit. If an object cannot be placed or relocated entirely outside of the sidewalk/pedestrian walkway, then the object should be placed or relocated in a manner that provides the maximum possible clear width, which in no case shall be less than thirty-six (36") inches. The work done under this permit shall in no way reduce or negatively impact the accessibility of the curb ramps, sidewalk/pedestrian walkway, crosswalks, etc. from what existed prior to construction under this permit. If the sidewalk to be installed is less than five (5') feet in width, a waiver must be approved by the MDOT SHA ADA department.

**001.03.18.04 Landscape Restoration.** Landscape restoration shall begin immediately upon completion of excavation activities, and shall include replacing topsoil, seeding, sodding, tree installation, and other work in general conformance with the MDOT SHA Environmental Guide for District, Access and Utility Permit Applicants, and as specified in the landscape plan developed for the project, or as directed by the District Utility Engineer. All reconstruction shall be in accordance with MDOT SHA's Standard Specifications for Construction and Materials, Category 700 – Landscaping. Inspections will be performed by the Office of Environmental Design's Quality Assurance Division and Landscape Programs Division in conformance with MDOT SHA Standard Specifications.

#### **001.03.19 MARKING ROAD REPAIRS.**

When a Permittee open cuts within MDOT SHA ROW, the cut shall be marked with the appropriate color code as designated by Miss Utility (see below). The initials of the utility company are required to be painted within the cut area.

When the Permittee open cuts pavement of a State roadway, they shall mark the repaired road or shoulder area with the appropriate color as designated by Miss Utility. The initials of the utility company are also required to be painted within the repaired area.

Utility Color Codes as designated by Miss Utility:

<u>Color</u>	<u>Utility</u>
Red.....	Electric Power Lines, Cables, Conduit, and Lighting Cables
Yellow.....	Gas, Oil, Steam, Petroleum or Gaseous Materials
Orange.....	Communication, Alarm or Signal Lines, Cables or Conduit incl. CATV
Blue.....	Potable Water
Purple.....	Reclaimed Water, Irrigation and Slurry
Green.....	Storm Drain Lines/Sewer
Pink.....	Survey Markings
White.....	Proposed Excavation

### TRAFFIC CONTROL PERMIT APPLICATION

Permit No.: \_\_\_\_\_ District: \_\_\_\_\_ Date: \_\_\_\_\_

**SECTION I – TYPE OF TRAFFIC CONTROL REQUEST (Check One Only)**

Normal Hours Closure

Detour

Nighttime/Weekend Closure

Special Request (i.e. Ramps) \_\_\_\_\_

**SECTION II – PERMITTEE INFORMATION**

Company (Name): \_\_\_\_\_ Project Contact (Name): \_\_\_\_\_

Address: \_\_\_\_\_ Title: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Email: \_\_\_\_\_

Office Phone #: \_\_\_\_\_ Cell #: \_\_\_\_\_ Fax #: \_\_\_\_\_

**SECTION III – LOCATION & DESCRIPTION OF TRAFFIC CONTROL**
**A. LOCATION**

MSHA Route #: \_\_\_\_\_ Also known as (street name): \_\_\_\_\_

From: \_\_\_\_\_ To: \_\_\_\_\_

MSHA Proj. No. (if any): \_\_\_\_\_ Job ID or Company's Ref. #: \_\_\_\_\_

MSHA Contact Person: \_\_\_\_\_

Office Phone #: \_\_\_\_\_ Cell #: \_\_\_\_\_ Fax #: \_\_\_\_\_

**B. DESCRIPTION**

Requested Date(s): \_\_\_\_\_ Day(s) of Work: \_\_\_\_\_

Requested Time Period: \_\_\_\_\_

Travel Direction of Closure ☐ N ☐ S ☐ E ☐ W ☐ INNER LOOP ☐ OUTER LOOPClosed Lanes: ☐ LT SH ☐ #1 ☐ #2 ☐ #3 ☐ #4 ☐ #5 ☐ RT SH ☐ OTHER[MSHA Traffic Control Standard No:](#) \_\_\_\_\_

Type of Work: \_\_\_\_\_

Traffic Control Manager (Name): \_\_\_\_\_ Fax #: \_\_\_\_\_

Contact Phone #: \_\_\_\_\_ Email : \_\_\_\_\_

Request for closure must be made **5 BUSINESS DAYS** prior to actual closure.**(Weekend requests must be in by Monday and Monday requests must be in by the previous Tuesday).**

Permittee must coordinate with the Project Engineer if working within Construction Work Zone Limits, in order to receive permission to work in that area.

Permittee is responsible for implementation of all traffic control devices, which must be in compliance with noted traffic control standard and the MdMUTCD.

This permit is subject to revocation at the direction of the MSHA.

Permittee must have a copy of the approved Traffic Control Permit at the work site.

Please fax completed form to:

The State Operations Center (SOC) must be contacted at 1-800-543-2515 each day the permit is in effect.  
 Permittee Must contact MSHA District Office and the SOC 30 minutes prior to closing any MSHA Roadway or shoulder.



THE MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION (MDOT SHA)

320 West Warren Road  
Hunt Valley, MD 21030

## Utility Permit

**Permit Number:** SHA-4-BA-0327-25

**U.C. Ref or Job ID#:** 231-201-0077-7235

**Project Number:**

**Route No.:** IS 695

**Route Name (optional):** BALTO  
BELTWAY (INNER LOOP) - IS 695

**Limits :** JOPPA RD E - CO 8762 to PERRING PKWY (SB/L) - **Mile Point :** 24.010, 24.350  
MD 41

**Issue Date :** 5/2/2025

**Expiration Date :** 5/2/2026

**Anticipated Start Date :** 6/30/2025

**Duration of Work :** 365

So far as the MDOT State Highway Administration has the right and power to grant same, permission is hereby given to:

**Permittee :**

Baltimore County Government  
111 W. Chesapeake Avenue  
Room 200  
Towson, MD 21204

**Attention :**

Bley, Amy  
Phone#: (410) 887-3781  
Email: [abley1@baltimorecountymd.gov](mailto:abley1@baltimorecountymd.gov)

**Description of Work:**

Rehabilitation of sanitary system. Sewer is located adjacent to shoulder of US Route 695, adjacent to intersection of Oakleigh Rd and Cromwood Rd. Work at this location involves internal rehabilitation of a manhole.

**The following Special Conditions apply to this permit.**

- ✓ Permittee must communicate with the MDOT/SHA Utility Inspector one (1) week prior to the commencement of work being executed under this permit to discuss Maintenance of Traffic.
- ✓ An approved MDOT/SHA Traffic Control Permit shall be required prior to commencement of work.
- ✓ All facilities must be placed in accordance with current MDOT/SHA's "Accessibility Policy & Guidelines for Pedestrian Facilities Along State Highways".
- ✓ All excavation outside of paved section shall be backfilled using suitable material as stated in the MDOT/SHA Specification Book (current revision) or approved by MDOT/SHA Utility Inspector.

Steel Plates - All excavation in MDOT/SHA State Right-of-Way shall be backfilled or plated daily. All steel plates shall be recessed, pegged on all four (4) corners, properly shimmed/wedged, and filled around the edges to provide smooth transition. If more than one plate is utilized adjacent to each other, they shall ✓ be supported from the underside and tack welded to prevent flexing and shifting. All steel plates shall have identification. Inspections of steel plates must occur twice daily using approved MDOT/SHA Inspection Report. Any steel plate placed between December 1st and March 30th, shall have pre-approval from MDOT/SHA Utility Inspector and paving restoration plan/schedule must be identified.

Cold Mix Asphalt is PROHIBITED unless approved by MDOT SHA Utility Inspector. Only approved ✓ cold patch materials (CPM) identified on the MDOT/SHA List of Qualified Products is approved for use on Maryland State roadways. CPM's are only to be utilized as a temporary repair until full roadway restoration can be achieved.

### **Notifications:**

- a. Permittee must notify **SAMUEL WALTO**, the MDOT State Highway Administration **District Utility Inspector**, at **(410) 321-2772** or **swalto@mdot.maryland.gov**, 48 hours prior to commencement of any activities related to this permit.
- b. The permittee will designate the Traffic Manager for this permit and a 24 hour emergency number at the pre-construction meeting.
- c. All work for this permit shall be in conformance with the above referenced documentation supplied by the utility company.
- d. The Permittee is **requested** to provide Geographic Information System (GIS) coordinates of any of its facilities, infrastructure, and appurtenances installed within the permitted area(s) to MDOT SHA District Office within Sixty (60) calendar days (or agreed upon timeline) of the completion of the Permittee's installation. The GIS coordinates should be provided on As Constructed Plans or other agreed upon mechanism. Please see the 2022 UTILITY PERMIT GENERAL PROVISIONS, Section 001.03.03.06 As Constructed Deliverables.

THIS PERMIT IS ISSUED WITH THE REQUIREMENT THAT IT WILL BE ENFORCED WITH THE UTILITY PERMIT GENERAL PROVISIONS. A COPY OF THE UTILITY PERMIT GENERAL PROVISIONS SHALL BE ATTACHED TO EACH AND EVERY INDIVIDUAL WORK ORDER PERMIT ALONG WITH ANY SPECIAL PROVISIONS, ATTACHMENTS, PLANS, AND ADDENDA IN ORDER TO CONSTITUTE A COMPLETE AUTHORIZED UTILITY PERMIT. THE COMPLETE AUTHORIZED UTILITY PERMIT OR DISTRICT OFFICE PERMIT WHICH MUST BE FOUND ON THE JOB SITE **AT ALL TIMES**.

Brian Tenders

**FOR**

By: \_\_\_\_\_

MYERS, CLAUDINE

District Engineer

MDOT State Highway Administration





**THE MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION (MDOT SHA)**

320 West Warren Road  
Hunt Valley, MD 21030

## Utility Permit

**Permit Number:** SHA-4-BA-0328-25

**U.C. Ref or Job ID#:** 231-201-0077-7235

**Project Number:**

**Route No.:** MD 542

**Route Name (optional):** LOCH RAVEN  
BLVD - MD 542

**Limits :** TAYLOR AVE - CO 3481 to GLENDALE RD - CO  
3385

**Mile Point :** 0.980, 0.410

**Issue Date :** 5/2/2025

**Expiration Date :** 5/2/2026

**Anticipated Start Date :** 6/30/2025

**Duration of Work :** 365

So far as the MDOT State Highway Administration has the right and power to grant same, permission is hereby given to:

**Permittee :**

Baltimore County Government  
111 W. Chesapeake Avenue  
Room 200  
Towson, MD 21204

**Attention :**

Bley, Amy  
Phone#: (410) 887-3781  
Email: [abley1@baltimorecountymd.gov](mailto:abley1@baltimorecountymd.gov)

**Description of Work:**

Rehabilitation of sewer system located outside of and to the west of intersection of Loch Raven Blvd and Goucher Blvd and north of Glendale Park. Sewer work will be outside SHA ROW. Work in the SHA ROW is providing access to sewer location.

**The following Special Conditions apply to this permit.**

- ✓ Permittee must communicate with the MDOT/SHA Utility Inspector one (1) week prior to the commencement of work being executed under this permit to discuss Maintenance of Traffic.
- ✓ An approved MDOT/SHA Traffic Control Permit shall be required prior to commencement of work.
- ✓ All facilities must be placed in accordance with current MDOT/SHA's "Accessibility Policy & Guidelines for Pedestrian Facilities Along State Highways".
- ✓ All excavation outside of paved section shall be backfilled using suitable material as stated in the MDOT/SHA Specification Book (current revision) or approved by MDOT/SHA Utility Inspector.

## Notifications:

- a. Permittee must notify **SAMUEL WALTO**, the MDOT State Highway Administration **District Utility Inspector**, at **(410) 321-2772** or **swalto@mdot.maryland.gov**, 48 hours prior to commencement of any activities related to this permit.
- b. The permittee will designate the Traffic Manager for this permit and a 24 hour emergency number at the pre-construction meeting.
- c. All work for this permit shall be in conformance with the above referenced documentation supplied by the utility company.
- d. The Permittee is **requested** to provide Geographic Information System (GIS) coordinates of any of its facilities, infrastructure, and appurtenances installed within the permitted area(s) to MDOT SHA District Office within Sixty (60) calendar days (or agreed upon timeline) of the completion of the Permittee's installation. The GIS coordinates should be provided on As Constructed Plans or other agreed upon mechanism. Please see the 2022 UTILITY PERMIT GENERAL PROVISIONS, Section 001.03.03.06 As Constructed Deliverables.

THIS PERMIT IS ISSUED WITH THE REQUIREMENT THAT IT WILL BE ENFORCED WITH THE UTILITY PERMIT GENERAL PROVISIONS. A COPY OF THE UTILITY PERMIT GENERAL PROVISIONS SHALL BE ATTACHED TO EACH AND EVERY INDIVIDUAL WORK ORDER PERMIT ALONG WITH ANY SPECIAL PROVISIONS, ATTACHMENTS, PLANS, AND ADDENDA IN ORDER TO CONSTITUTE A COMPLETE AUTHORIZED UTILITY PERMIT. THE COMPLETE AUTHORIZED UTILITY PERMIT OR DISTRICT OFFICE PERMIT WHICH MUST BE FOUND ON THE JOB SITE **AT ALL TIMES**.



**FOR**

By: \_\_\_\_\_

MYERS, CLAUDINE

District Engineer

MDOT State Highway Administration



**THE MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION (MDOT SHA)**

320 West Warren Road  
Hunt Valley, MD 21030

## Utility Permit

**Permit Number:** SHA-4-BA-0331-25

**U.C. Ref or Job ID#:** 231-201-0077-7235

**Project Number:**

**Route No.:** MD 41

**Route Name (optional):** PERRING  
PKWY - MD 41

**Limits :** TAYLOR AVE - CO 3481 to WYCLIFFE RD - CO  
3435

**Mile Point :** 1.040, 0.860

**Issue Date :** 5/2/2025

**Expiration Date :** 5/2/2026

**Anticipated Start Date :** 6/30/2025

**Duration of Work :** 365

So far as the MDOT State Highway Administration has the right and power to grant same, permission is hereby given to:

**Permittee :**

Baltimore County Government  
111 W. Chesapeake Avenue  
Room 200  
Towson, MD 21204

**Attention :**

Bley, Amy  
Phone#: (410) 887-3781  
Email: [abley1@baltimorecountymd.gov](mailto:abley1@baltimorecountymd.gov)

**Description of Work:**

Rehabilitation of sanitary sewer system. Sewer is located west of Perring Pkwy shoulder, to the northeast of property 7801 Beverly Ave. Work area is located to the west of and outside of Perring Pkwy guardrail. Work at this location involves trenchless lining of sewer pipe and internal rehabilitation of manholes.

**The following Special Conditions apply to this permit.**

- ✓ Permittee must communicate with the MDOT/SHA Utility Inspector one (1) week prior to the commencement of work being executed under this permit to discuss Maintenance of Traffic.
- ✓ An approved MDOT/SHA Traffic Control Permit shall be required prior to commencement of work.
- ✓ All facilities must be placed in accordance with current MDOT/SHA's "Accessibility Policy & Guidelines for Pedestrian Facilities Along State Highways".
- ✓ All excavation outside of paved section shall be backfilled using suitable material as stated in the MDOT/SHA Specification Book (current revision) or approved by MDOT/SHA Utility Inspector.

## Notifications:

- a. Permittee must notify **SAMUEL WALTO**, the MDOT State Highway Administration **District Utility Inspector**, at **(410) 321-2772** or **swalto@mdot.maryland.gov**, 48 hours prior to commencement of any activities related to this permit.
- b. The permittee will designate the Traffic Manager for this permit and a 24 hour emergency number at the pre-construction meeting.
- c. All work for this permit shall be in conformance with the above referenced documentation supplied by the utility company.
- d. The Permittee is **requested** to provide Geographic Information System (GIS) coordinates of any of its facilities, infrastructure, and appurtenances installed within the permitted area(s) to MDOT SHA District Office within Sixty (60) calendar days (or agreed upon timeline) of the completion of the Permittee's installation. The GIS coordinates should be provided on As Constructed Plans or other agreed upon mechanism. Please see the 2022 UTILITY PERMIT GENERAL PROVISIONS, Section 001.03.03.06 As Constructed Deliverables.

THIS PERMIT IS ISSUED WITH THE REQUIREMENT THAT IT WILL BE ENFORCED WITH THE UTILITY PERMIT GENERAL PROVISIONS. A COPY OF THE UTILITY PERMIT GENERAL PROVISIONS SHALL BE ATTACHED TO EACH AND EVERY INDIVIDUAL WORK ORDER PERMIT ALONG WITH ANY SPECIAL PROVISIONS, ATTACHMENTS, PLANS, AND ADDENDA IN ORDER TO CONSTITUTE A COMPLETE AUTHORIZED UTILITY PERMIT. THE COMPLETE AUTHORIZED UTILITY PERMIT OR DISTRICT OFFICE PERMIT WHICH MUST BE FOUND ON THE JOB SITE **AT ALL TIMES**.



**FOR**

By: \_\_\_\_\_

MYERS, CLAUDINE

District Engineer

MDOT State Highway Administration



**THE MARYLAND DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION (MDOT SHA)**

**District # 4  
320 West Warren Road  
Hunt Valley, MD 21030  
866-998-0367 or 410-229-2341**

**Utility Blanket Permit for the following Counties:**

Baltimore Harford

☐ Aerial ☒ Surface ☒ Underground

**Permit Number:** SHA-4-BP-0001-24

**Issue Date :** 1/3/2024

**Expiration Date :** 1/3/2026

**PERMISSION IS HEREBY GRANTED TO:**

**Permitee:**

Baltimore County Government  
111 W. Chesapeake Avenue  
Towson, MD 21204

**Attention:**

Lisa Eicholtz  
Phone#: (410) 887-3730  
Email: leicholtz@baltimorecountymd.gov

**Description of Work:**

Perform the necessary EMERGENCY repairs and ROUTINE maintenance on existing facilities owned by Baltimore County DPWT. The Permittee is required to call the Statewide Operations Center (SOC for all Emergency and Routine work at 410-582-2650. You are REQUIRED to get a Traffic Control Permit for all routine maintenance operations.

So far as the Maryland Department of Transportation State Highway Administration (MDOT SHA) has the right and power to grant same, to enter upon the MDOT SHA's Right-of-Way to perform Emergency Repairs, Minor Maintenance, and Service to existing Utility Name facilities. Interstate routes require a separate Utility Permit unless it is an Emergency.

The following operations listed below are covered under this Blanket Permit:

1. Performing emergency utility facility repairs, including roadway excavation and restoration, necessary to restore and maintain essential utility services and any associated work thereafter. An Emergency is defined as a situation resulting from a sudden unexpected event or incident which presents a clear and imminent danger requiring immediate action to prevent or mitigate loss or damage to life, health, property, or essential public services and any associated work thereafter.
2. The Permittee shall possess the ability to respond to a highway emergency within 2 hours of notification.
3. Minor maintenance defined as activities that are routine, low in cost, straightforward, and expedient to correct which are normally accomplished as part of the annual operation and maintenance. Such

activities would include customer service work, pole attachments, and lighting repairs.

4. Minor service and/or repair of facilities, not requiring excavation activities within the roadway, i.e. removal or replacement of underground, surface, or aerial facilities, except during an emergency as defined above.
5. The in-kind removal and replacement of defective or damaged utility facilities.
6. Tree trimming required to access and maintain utility facilities.
7. Installing, replacing, removing, and maintaining streetlights and pole anchors attached to existing utility poles, and any make ready work on existing utility poles.
8. Access to facilities in existing manholes, handholes, structures, and vaults for repairs or service.
9. Conducting utility field investigations, inspections, designations, and surveys.
10. This permit is governed in strict compliance with the following Special Provisions as well as the Utility Permit General Provisions.

## **SPECIAL PROVISIONS**

- The permittee is to notify the MDOT SHA District 4 Utility Engineer (DUE) for emergency work at 410-229-2341 during normal business hours or the State Operations Center (SOC) at 800-543-2515 after normal business hours. The SOC will notify the DUE for after hour emergencies.
- ✓ All traffic control is to be performed in strict accordance with MDOT SHA Traffic Control Standards.
  - ✓ Roadway excavation is strictly prohibited except when performing emergency repairs to restore or maintain essential utility services.
  - ✓ Daily Traffic Control schedules are to be submitted to the SHA District 4 Office 48 hours prior to performing any lane or shoulder closure exceeding 15 minutes in duration.
  - ✓ An Additional "Traffic Control Permit" is required for this permit. Please contact District 4 Traffic at 410-229-2381 for more information.

## **NOTIFICATIONS**

1. The permittee must notify the MDOT SHA District Utility Engineer's Office at 410-229-2341 48 hours prior to starting any non-emergency work allowed by this Blanket Permit
2. If excavation is required, the permittee must notify Miss Utility at 1-800-257-7777 for any emergency work immediately and any non-emergency within 48 hours in advance of starting any work allowed by this permit
3. All other notifications as required per the Utility Permit General Provisions.

THIS BLANKET PERMIT IS ISSUED WITH THE REQUIREMENT THAT IT WILL BE ENFORCED BY THE UTILITY PERMIT GENERAL PROVISIONS, SPECIAL PROVISIONS, AND THE PERMIT REGULATIONS.

A COPY OF THIS BLANKET PERMIT ALONG WITH THE UTILITY PERMIT GENERAL PROVISIONS MUST BE FOUND ON THE JOB SITE AT ALL TIMES.

*Melroy White* For:

By: \_\_\_\_\_

SUTAPA SAMANTA

District Engineer

MDOT State Highway Administration

## Stormwater Pollution Prevention Plan (SWPPP)

### For Construction Activities At:

Project Name	Herring Run Sewershed Structural Sewer Rehabilitation – Phase II
Location/Address	Baltimore Co. Bounded by E Joppa Road, I-695, Perring Parkway, City/County limit, and Dulaney Valley Road
Phone Number	410-887-3781

### Joint SWPPP Prepared For:

Baltimore County Department of Public Works and Transportation, referred to herein as “County”

Contact Name	Amy Bley
Address	111 W. Chesapeake Avenue, Room 200 Towson, MD 21204
Phone Number	410-887-3781
Email	Abley1@baltimorecountymd.gov

and Contractor performing work on Baltimore County Project, referred to herein as “Contractor”

Company Name	To be determined
Contact Name	(to be provided by the Contractor)
Address	(to be provided by the Contractor)
Phone Number	(to be provided by the Contractor)
Email	(to be provided by the Contractor)

### SWPPP Prepared By:

Company Name	Baltimore County DPWT
Contact Name	Karen Lowe
Address	111 W. Chesapeake Ave, Room 200 Towson, MD 21204
Phone Number	410-887-3781
Email	klowe@baltimorecountymd.gov

### SWPPP Preparation Date:

May 7, 2025

### Estimated Project Dates

Project Start Date: July 1, 2025

Project Completion Date: July 1, 2026



A SWPPP is required for your site in the following situations (Part III.F.1 of the Permit). Indicate which of these conditions apply at your site:

- ☐ a. The use of Chemical Additives or Polymers for Sediment Control.
- ☒ b. Construction activity which includes disturbing material or soils with known contamination by toxic or hazardous substances (Part I.D.6 and Part III.B.3), dewatering requiring turbidity benchmarks (Part III.B.4) or the Department notifies you to install additional controls to meet water quality standards (Part III.B.1).

Non-stormwater discharges prohibited in permit Part I.D are listed below.

1. Wastewater from the Concrete Washout. (permit Part III.A.3.d).
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials. (permit Part III.A.3.d)
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance (permit Parts III.A.3.a and III.A.3.c.iii).
4. Soaps or solvents, or detergents used in vehicle and equipment washing or external building washdown (permit Part III.A.3.b);
5. Toxic or hazardous substances from a spill or other release (also see permit Part III.A.3.c iv, III.A.3.f. and VI.J) (whether the site is known to be contaminated by PCBs, PFAS, mercury, lead, or other metals, or any other source of toxic industrial pollution); and
6. Water contaminated by toxic or hazardous substances from sites managed under Maryland's Voluntary Cleanup Program (VCP) or Land Restoration Program (LRP).

- ☐ c. The implementation of controls associated with any of the pollution prevention activities referenced in Part III.A.3 (except projects less than 5 acres solely based on either building materials (including gravel or aggregate) present on-site, fertilizer required for revegetation or concrete washout).

- ☒ d. The sharing of permit-related functions between and among operators on the same site. This SWPPP clarifies the operator's areas of responsibility.

☐ Yes, through a common plan of development or sale

☒ Yes, through a co-permittee/operator (with a separate NOI)

- ☐ e. Where coverage under the 20-CP permit is required but either E&SC, SWM plan requirements, or both are exempt under Title 4 (implementing a SWPPP in lieu of an approved E&SC plan).

- ☐ None of the above, voluntarily creating a SWPPP for construction activity.

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## SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES (Part III.F.2.a of the permit)

### 1.1 Operator(s) / Subcontractor(s)

#### Operator(s):

Baltimore County Department of Public Works and Transportation, referred to as "County"

Company Name	Baltimore County DPWT
Contact Name	Gwenn Crupi
Address	111 W Chesapeake Ave Towson, MD 21204
Phone Number	410-887-3781
Email	gcrupi@baltimorecountymd.gov
Area of Control	The County has operational control over construction plans and specifications, including the ability to make modifications to those plans and specification. The County's area of control is limited to control of these plans and specifications only.

Contractor performing work on Baltimore County Project, referred to as "Contractor"

Company Name	To be determined (to be provided by the Contractor)
Contact Name	(to be provided by the Contractor)
Address	(to be provided by the Contractor)
Phone Number	(to be provided by the Contractor)
Email	(to be provided by the Contractor)
Area of Control	The Contractor has day-to-day operational control of those activities at a project that are necessary to ensure compliance with the permit conditions including authorization to direct workers at a site to carry out activities required by the 20-CP permit, correct violations (including repair or installation of erosion and sediment controls), and/or halt construction activity until violations or the permit are corrected. The Contractor is responsible for entirety of project site, including during any periods of inactivity. Contractor's responsibility for the entirety of project site do not end until Final Acceptance of the work has been issued by the County and this permit is closed out.

#### Subcontractor(s):

All subcontractors performing work on the project site shall be the responsibility of the Contractor. The Contractor shall notify subcontractors of stormwater requirements applicable to their work. The County assumes no responsibility for any subcontractors. The Contractor may consider using Subcontractor Agreements (See Appendix 9.3).

**Emergency 24-Hour Contact:**

Insert Company or Organization Name (to be provided by the Contractor)

Insert Name (to be provided by the Contractor)

Insert Telephone Number (to be provided by the Contractor)

**Common Plan of Development – Roles and Responsibilities.**

Entity	Project Area	Responsibility
Contractor	Entire work area	The Contractor has the sole responsibility for compliance with all Permit Terms and Conditions, and that responsibility continues through and until Final Acceptance of all work is issued by the County and this permit is closed out.
Contractor	Entire work area	The Contractor is responsible for any and all stormwater management and erosion and sediment controls, including any controls not shown on the Construction Drawings. This responsibility includes the installation and maintenance of all stormwater management and erosion and sediment control measures in accordance with Contract Drawings and Contract Documents.
Contractor	Entire work area	The Contractor is responsible for conducting all inspections and submitting all reports required to comply with the 20-CP permit and SWPPP. This includes all inspections and reporting during periods of inactivity.
Contractor	Entire work area	The Contractor is responsible for all turbidity monitoring and reporting. This includes monitoring and reporting during periods of inactivity. Section I of the Turbidity Monitoring Reports shall reflect that the Contractor is the responsible party for submitting the reports, and include the County's NPDES Number.
County	Plans and Specifications	The County has operational control over construction plans and specifications, including the ability to make modifications to those plans and specification. The County's responsibility is limited to control of these plans and specifications only.

## 1.2 Stormwater Team (Part III.F.2.b of the permit)

### Instructions – Identify the project's stormwater team.

Identify everyone by name or position.

Describe everyone's responsibilities.

Indicate which members are responsible for inspections.

At a minimum, the stormwater team is comprised of individuals who are responsible for:

Overseeing the development of the SWPPP

Any later modifications to the SWPPP

Compliance with the permit requirements (i.e., installing and maintaining stormwater controls, conducting site inspections, and taking corrective actions where required)

Each member of the stormwater team must have ready access to either an electronic or a paper copy of the 20-CP and the SWPPP.

Stormwater Team		
Name and/or position, and contact	Responsibilities	I Have Read the 20-CP and Understand the Applicable Requirements
Gwenn Crupi Baltimore County Project Manger 410-887-3781 gcrupi@baltimorecountymd.gov	Overseeing the initial development of the SWPPP	<input checked="" type="checkbox"/> Yes  Date: 6-4-2025
(to be provided by the Contractor) Insert name of responsible person, position, telephone number and email	Overseeing any later modifications to the SWPPP	<input type="checkbox"/> Yes  Date: enter a date.
(to be provided by the Contractor) Insert name of responsible person, position, telephone number and email	Compliance with the permit requirements	<input type="checkbox"/> Yes  Date: enter a date.

## SECTION 2: NATURE OF CONSTRUCTION ACTIVITIES (Part III.F.2.c of the permit)

### 2.1 Project/Site Information

#### Instructions – Provide basic site information.

Provide the nearest cross street if a physical address is unavailable.  
The Latitude and Longitude Coordinates must be in Decimal Degrees.

#### Project Name and Address

Project/Site Name: [Herring Run Sewershed Structural Sewer Rehabilitation – Phase II](#)

Project Street/Location: [Baltimore County bounded by E Joppa Road, I-695, Perring Parkway, City/County limit, and Dulaney Valley Road](#)

City: [Towson](#)

State: [MD](#)

ZIP Code: [21286](#)

County or Similar Subdivision: [Baltimore County](#)

Business days and hours for the project: [Monday -Friday, 8am-5pm](#)

#### Project Latitude/Longitude

Latitude: [39.38512](#)° N  
(decimal degrees)

Longitude: - [76.57679](#) ° W  
(decimal degrees)

Latitude/longitude data source:

☒ Map    ☐ GPS    ☐ Other (please specify): \_\_\_\_\_

#### Additional Project Information

Are you requesting permit coverage as a state or federal entity?    ☐ Yes    ☒ No

Have you received an assigned MDE SF number for the Erosion and Sediment Control Plan?  
☐ Yes    ☐ No

If yes, please provide the assigned number: [n/a](#)

## 2.2 Discharge Information

### Instructions – Include information relating to your site's discharge.

List all the stormwater points of discharge from your site.

Identify each point of discharge with a unique 3-digit ID (e.g., 001, 002).

For each unique point of discharge listed, specify the name of the receiving water of this State that the stormwater directly discharges.

You may have multiple points of discharge to the same receiving water.

Specify whether any waters of this State that you discharge to are listed as impaired.

List the pollutants causing the impairment.

Identify any completed Total Maximum Daily Loads (TMDL) for any of the waters of this State that you discharge to.

List the pollutants for which there is a TMDL.

Indicate whether any water of this State that you discharge to is designated as a Tier II.

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?

☐ Yes ☒ No

Are there any waters of this State within 50 feet of your project's earth disturbances?

☒ Yes ☐ No

Provide the Watershed Basin Code below. If your project discharges to more than one watershed, please provide all basin codes.

Back River

02130901



Outfall ID	Name of receiving water	Is the receiving water impaired (on the CWA 303(d) list)?	List the pollutants that are causing the impairment	Is there a completed TMDL for this receiving waterbody?	Is this receiving water designated as a Tier II?
[001]	Back River	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Bacteria and other microbes	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

## 2.3 Description of the Construction Activities (Part III.F.2.c.i - v of the permit)

### Instructions – Provide a general description of the construction activities at your site.

Indicate the size of the property (in acres), the total acreage to be disturbed by the construction activities, and the maximum acreage expected to be disturbed at any one time.

Indicate the type of construction site. Include any demolition activities, and if the predevelopment land use was for agriculture.

Provide a list and description of all pollutant-generating activities.

Examples: paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations

Indicate for each activity the type of pollutant that will be generated with potential to be discharged in stormwater from your site.

Examples: sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels

Describe the construction support activities covered by this permit.

Examples: concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas

### General Description of Project

Provide a general description of the nature of your construction activities. For any demolition, include the dates of past renovations:

Project consists of work to rehabilitate the existing sanitary sewer system. Project will consist mainly of trenchless rehabilitation of 8" to 15" sewer pipes through Cured-In-Place lining and may also include seven sections of open cut point repairs generally about six feet in length and one with a length of 15 feet. Project will also involve manhole rehabilitation through internal methods including grouting, internal coating with cementitious or epoxy lining, repair of chimney, and sealing and resetting frame and cover. Site conditions will be restored to existing conditions upon completion of the project. Note that this project is part of a series of maintenance projects that are being undertaken in compliance with Federal (EPA) and State (MDE) Consent Decree.

### Size of Construction Site

Size of Property: Project follows sewer pipeline and spans many properties

Total Acreage Expected to be Disturbed by Construction Activities: 3.9 acres

Maximum Acreage Expected to be Disturbed at Any One Time: 3.9 acres

**Type of Construction Site** (check all that apply):

- ☐ Single-Family Residential   ☐ Multi-Family Residential   ☐ Commercial   ☐ Industrial  
☐ Institutional   ☐ Highway or Road   ☒ Utility   ☐ Other \_\_\_\_\_

Will there be demolition of any structure built or renovated before January 1, 1980?

☐ Yes   ☒ No

If yes, do any of the structures being demolished have at least 10,000 square feet of floor space?   ☐ Yes   ☐ No   ☒ N/A

**Pollutant-Generating Activities (Part III.F.c.vii)**

- List and describe all pollutant-generating activities. Indicate for each activity the type of pollutant that will be generated. Consider where potential spills and leaks could occur, and any known hazardous or toxic substances, such as PCBs or asbestos, which will be disturbed during construction.

**Pollutant-Generating Activity**

-Excavation and dewatering

- Trench excavation for sewer repairs where trenchless solutions are not suitable
- Test pit holes for verifying crossing utilities
- Dewatering of excavations may be required

-Manhole and pipe lining

-Paving activities

-Landscaping

-Vehicle and equipment use

- Including refueling

**Pollutants or Pollutant Constituents**

(e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels)

Excavation/backfill/open cut repairs/dewatering	Asphalt, concrete construction waste, sediment, groundwater
Manhole and pipe lining	Construction waste, caulks, sealants, curing agents, concrete admixtures
Paving	Asphalt, concrete, asphaltic products
Landscaping	Sediment, fertilizers, pesticides, herbicides
Vehicle and equipment use	petroleum products such as gasoline, diesel fuels, oil-based lubricants

**Construction Support Activities** *(only provide if applicable)*

Describe any construction support activities for the project  
(e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas,  
excavated material disposal areas, borrow areas)

description of construction activity (to be provided by the Contractor)
-------------------------------------------------------------------------

Contact information for construction support activity:

Name (to be provided by the Contractor)
Telephone number (to be provided by the Contractor)
Email (to be provided by the Contractor)
Address (to be provided by the Contractor)

*[Repeat as necessary.]*

## 2.4 Sequence and Estimated Dates of Construction Activities (Part III.F.2.c.vi of the permit)

### Instructions – Describe the intended construction sequence and duration of major activities.

For each portion or phase of the construction site, include the following:

Commencement and duration of construction activities, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization

Temporary or permanent cessation of construction activities

Temporary or final stabilization of areas of exposed soil

Removal of temporary stormwater controls and construction equipment or vehicles, and cessation of any pollutant-generating activities

### Phase I

Project consists of work to rehabilitate the existing sanitary sewer system. Project will consist mainly of trenchless rehabilitation of 8" to 15" sewer pipes through Cured-In-Place lining and may also include seven sections of open cut point repairs generally about six feet in length and one with a length of 15 feet. Project will also involve manhole rehabilitation through internal methods including grouping, internal coating with cementitious or epoxy lining, repair of chimney, and sealing and resetting frame and cover.

Estimated Start Date of Construction Activities for this Phase	July, 2025
Estimated End Date of Construction Activities for this Phase	July, 2026
Estimated Date(s) of Application of Stabilization Measures for Areas of the Site Required to be Stabilized	July, 2025 – July, 2026
Estimated Date(s) when Stormwater Controls will be Removed	July, 2026

## **2.5      Authorized Non-Stormwater Discharges (Part III.F.2.e of the permit)**

### **Instructions - Identify all authorized sources of non-stormwater discharges.**

- a. Discharges from emergency fire-fighting activities;
- b. Landscape irrigation;
- c. Water used to wash vehicles and equipment, if there is no discharge of soaps, solvents, or detergents used for such purposes;
- d. Water used to control dust;
- e. External building washdown, provided soaps, solvents, and detergents are not used, and external surfaces do not contain hazardous substances (as defined in Appendix A) (e.g., paint or caulk containing polychlorinated biphenyls (PCBs));
- f. Pavement wash waters – if spills or leaks of toxic or hazardous substances have not occurred (unless all spill material has been removed) and where soaps, solvents, and detergents are not used. You are prohibited from directing pavement wash waters directly into any Waters of this State, storm drain inlet, or stormwater conveyance, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;
- g. Uncontaminated air conditioning or compressor condensate;
- h. Uncontaminated, non-turbid discharges of ground water or spring water;
- i. Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and
- j. Construction dewatering water discharged in accordance with Part III.A.4.

### **List of Authorized Non-Stormwater Discharges Present at the Site**

<b>Type of Authorized Non-Stormwater Discharge</b> <i>You are required to identify the locations of these authorized non-stormwater discharges on your site map.</i>	<b>Present at the construction site?</b>
Discharges from emergency fire-fighting activities	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Landscape irrigation;	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Waters used to wash vehicles and equipment	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Water used to control dust	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Potable water including uncontaminated water line flushing (requires separate "HT" permit)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
External building washdown (soaps/solvents are not used, and external surfaces do not contain hazardous substances)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pavement wash waters	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Uncontaminated air conditioning or compressor condensate	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Uncontaminated, non-turbid discharges of ground water or spring water	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Construction dewatering water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

### SECTION 3: DEWATERING AND USE OF CHEMICAL TREATMENT (Part III.F.2.c of the permit)

#### 3.1 Dewatering Practices

##### Instructions – Describe any dewatering practices

Include a description of all dewatering practices that are installed and maintained at the construction site.

- Excavations
- Trenches
- Foundations
- Vaults or other similar points of accumulation

##### General

Contractor to provide a general description of how they will install and maintain dewatering practices

### Specific Dewatering Practices

<b>Contractor to Insert the name of the dewatering practice to be installed</b>	
<b>Description:</b> Insert a description of the dewatering practice to be installed (Contractor)	
<b>Installation</b>	Insert approximate installation date (Contractor)
<b>Maintenance Requirements</b>	Insert maintenance requirements for the dewatering practice (Contractor)

[Repeat as needed for individual dewatering practices.]

### 3.2 Chemical Treatment

<b>Instructions - If you are using treatment chemicals at your site, provide details in the tables below</b>  Complete the tables with all applicable requested information. Attach copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems. Refer to the Maryland List of Pre-Approved Flocculants available on MDE's website.  Receive approval from the Department prior to the use of Cationic Chemicals.
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**The plans and specification do not indicate the need for chemical treatment. Should the Contractor choose to use chemical treatment, a modification to this SWPPP will be required.**

Will this site use treatment chemicals? ☐ YES ☒ NO

#### Soil Types

List all the soil types (include soil types expected to be found in fill material) that are expected to be exposed during construction in areas of the project that will drain to chemical treatment systems:

List the soil type (N/A)	List the soil type (N/A)
--------------------------	--------------------------

[Repeat as needed.]

#### Treatment Chemicals

List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics:

List all treatment chemicals	Is the chemical suited to the soil characteristics?	Explain how the chemical is suited to the soil characteristics.
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List treatment chemical (N/A)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Provide an explanation (N/A)
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*[Repeat as needed.]*

List all treatment chemicals, a description of the dosage to be used and the method of storage:

List all treatment chemicals	Describe the dosage for the treatment chemical	Describe the storage of the treatment chemical
List treatment chemical (N/A)	Describe dosage (N/A)	Describe storage (N/A)

*[Repeat as needed.]*

Provide any additional applicable Safety Data Sheet information:

List all treatment chemicals (N/A)	Provide additional applicable Safety Data Sheet information (N/A)
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*[Repeat as needed.]*

Provide all additional local requirements affecting the use of treatment chemicals:

List all treatment chemicals	Is there any additional local requirement affecting the use of this chemical?	Explain the additional local requirement.
List treatment chemical (N/A)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Provide explanation (N/A)

**Special Controls for Cationic Treatment Chemicals** (if applicable)

If MDE authorized you to use cationic treatment chemicals, include the official authorization letter or other communication, and identify the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to an exceedance of water quality standards. Also, include any other approval authorities contacted for the approval.

Provide the name(s) of approval authorities contacted and date(s) contacted: N/A

List the approved authority contacted (N/A)	List the date the approval authority was contacted (N/A)
---------------------------------------------	----------------------------------------------------------

*[Repeat as needed.]*

Provide a brief explanation for the use of Cationic Treatment Chemicals:

N/A
-----

**Training on Use of Additives**

Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals:

List all treatment chemicals	Is there any specific training that personnel must receive prior to handling or applying this chemical?	Explain the training.
List treatment chemical (N/A)	<input type="checkbox"/> Yes <input type="checkbox"/> No	Provide explanation (N/A)

*[Repeat as needed.]*

## SECTION 4: POLLUTION PREVENTION STANDARDS (Part III.A.3 of the Permit)

### 4.1 Potential Sources of Pollution

#### Instructions – Describe all pollutant generating activities

Identify and describe all pollutant-generating activities at your site

Paving operations

Concrete

Paint

Stucco washout and waste disposal

Solid waste storage and disposal

For each pollutant generating activity, include an inventory of pollutants or pollutant constituents associated with that activity that may be exposed to rainfall or snowmelt.

Sediment

Fertilizers and/or pesticides

Paints

Solvents

Fuels

#### Construction Site Pollutants

You must consider where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos that will be disturbed or removed during construction.

<b>Pollutant-Generating Activity</b>	<b>Pollutants or Pollutant Constituents</b> (that could be discharged if exposed to stormwater)	<b>Location on Site</b> (or reference SWPPP site map where this is shown)
Trench excavation	Sediment	In specific locations where trenchless rehabilitation methods are not viable
Manhole and pipe lining	Caulks, sealants, curing agents, concrete admixtures	Throughout the entirety of the project site
Paving	Asphalt	In existing roadways where asphalt repairs are required
Landscaping	Sediment, fertilizers, pesticides, herbicides	In specific locations where landscaping restoration is required

Vehicle and equipment use	Petroleum products such as gasoline, diesel fuel, oil-based lubricants	Throughout the entirety of the project site
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## 4.2 Spill Prevention and Response

Spill prevention and response procedures (see Part I.D.5 and Part III.A.3.c.iv of the permit). You must include the following:

- o Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or position of the employee(s) responsible for detection and response of spills or leaks; and
- o Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part III.A.3.f. and established under either 40 CFR 110, 40 CFR 117, or 40 CFR 302, occurs during a 24-hour period (see Part III.A.3.f). Contact information must be in locations that are readily accessible and available to all employees. You may also reference the existence of Spill Prevention Control and Countermeasure (SPCC) plans developed for the construction activity under Part 311 of the CWA, or spill control programs otherwise required by an NPDES permit for the construction activity, provided that you keep a copy of that other plan on site.

All trucks carry spill kits that will be utilized in the event of a spill. We carry two different types. The first are absorbent towels that soak up active spills. The second is a powder that is used to absorb spills that have already soaked into concrete surfaces.

## 4.3 Fueling and Maintenance of Equipment or Vehicles (Part III.A.3.a in the Permit)

### Instructions – Describe fueling and maintenance practices

Describe equipment/vehicle fueling and maintenance practices that will be implemented to eliminate the discharge of spilled or leaked chemicals

Secondary containment  
 Spill berms  
 Decks  
 Spill containment pallets  
 Spill kits

### General

All major equipment/vehicle maintenance will occur offsite. Minor vehicle maintenance and fueling may occur.

--

**Specific Pollution Prevention Practices**

Daily leak and spill check	
Description: Equipment and vehicles will be check for leaks daily	
Installation	Equipment and vehicle maintenance and fueling practices will be implemented at the start of site construction activities
Maintenance Requirements	Equipment and vehicles will be checked for leaks on a daily basis. Leaks will be repaired immediately or affected vehicles or equipment will be removed from the site. Site areas where active vehicles or equipment is present will be checked for evidence of spills or leaks on a weekly basis. Sufficient spill cleanup materials will be stored on site at all times.

**4.4 Washing of Equipment and Vehicles (Part III.A.3.b in the Permit)**

<p><b>Instructions – Describe washing practices</b></p> <p>Describe equipment/vehicle washing practices that will be used to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters</p> <ul style="list-style-type: none"><li>Locate activities away from waters of this State and stormwater inlets or conveyances</li><li>Direct wash waters to a sediment basin or sediment trap</li><li>Use filtration devices</li><li>filter bags or sand filters</li><li>Use other effective controls</li></ul> <p>Describe how you will prevent the discharge of soaps, detergents, or solvents</p> <ul style="list-style-type: none"><li>Plastic sheeting</li><li>Temporary roofs</li><li>Other method of design to prevent the discharge of pollutants from these areas</li></ul>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

**General**

No equipment or vehicle washing will take place on site
---------------------------------------------------------

#### 4.5 Storage, Handling, and Disposal

##### **Instructions – Describe storage, handling, and disposal of building products, materials, and wastes**

Asphalt sealants, copper flashing, roofing materials, adhesives, concrete admixtures, gravel and mulch stockpiles

Pesticides, herbicides, insecticides, fertilizers, and landscape materials

Diesel fuel, oil, hydraulic fluids, other petroleum products, and other chemicals

Hazardous or toxic waste, paints, solvents, petroleum-based products, wood preservatives, additives, curing compounds, acids

Construction and Domestic Waste, packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, and other trash or building materials

Sanitary waste

Describe used applicator and container washing

Paint, Concrete or Other Materials

Describe pollution prevention for the use of fertilizers

Describe any additional pollution prevention practices

##### **4.5.1 Building Products (Part III.A.3.c.i in the Permit)**

###### **General**

N/A

#### 4.5.2 **Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials (Part III.A.3.c.ii in the Permit)**

##### General

All pesticides, herbicides, insecticides, fertilizer, and landscape materials will be stored, handled, and disposed of per manufacturers recommendations and state and federal laws

##### Specific Pollution Prevention Practices

###### **Daily leak and spill check, weather condition check**

**Description:** Containers will be checked for spills or leaks and storage conditions (temperature, humidity, etc) will be checked. On days when application is to take place, weather conditions will be checked to ensure suitable conditions are expected per manufacturers recommendations

<b>Installation</b>	Pesticides, herbicides, insecticides, fertilizer, and landscape materials practices will be implemented at the start of site construction activities or when materials arrive on site
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<b>Maintenance Requirements</b>	If storage conditions are found to not be met, containers will be moved to a location where storage conditions are appropriate. Any spills will be immediately cleaned per state and federal laws. On days when application is planned, weather conditions will be checked for suitability. All federal, state, and local laws will be followed for application process as required
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#### 4.5.3 **Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals (Part III.A.3.c.iii in the Permit)**

##### General

Mobile fueling of equipment will occur in close proximity to spill containment kits, assigned to the crew who is trained in such containment and disposal procedures

##### Specific Pollution Prevention Practices

###### **Fuel spill monitoring and prevention**

**Description:** Vehicles and equipment are monitored daily for leaks or spills

<b>Installation</b>	Equipment and vehicle fueling practices will be implemented at the start of site construction activities
---------------------	----------------------------------------------------------------------------------------------------------

<b>Maintenance Requirements</b>	Vehicles and equipment will be monitored daily for leaks and spills. Any spills or leaks will be repaired and the leaks contained using spill kits
---------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------

#### 4.5.4 Hazardous or Toxic Waste (Part III.A.3.c.iv in the Permit)

##### General

N/A

#### 4.5.5 Construction and Domestic Waste (Part III.A.3.c.v in the Permit)

##### General

Construction waste will be disposed of daily at licensed landfills

##### Specific Pollution Prevention Practices

Debris removal	
<b>Description:</b> All debris will be removed daily. No construction debris will remain on site	
<b>Installation</b>	Will be implemented at the start of construction activities
<b>Maintenance Requirements</b>	It is the Contractors responsibility to perform proper housekeeping and remove all construction waste from the site on a daily basis. No dumpsters or other waste storage will be present on site

#### 4.5.6 Sanitary Waste (Part III.A.3.c.vi in the Permit)

##### General

Contractor will provide portable toilets as needed, ensuring they are installed and maintained properly

##### Specific Pollution Prevention Practices

Portable toilets	
<b>Description:</b> Portable toilets will be installed as needed. Portable toilets will be positioned on a secure flat surface and will be outfitted with connection pans to serve as secondary containment	
<b>Installation</b>	Will be implemented at the start of site construction activities and removed at the completion of construction activities
<b>Maintenance Requirements</b>	Portable toilets will be inspected on a weekly basis and serviced on an as-needed basis



#### 4.5.7 Washing of Applicators and Containers used for Paint, Concrete or Other Materials (Part III.A.3.d in the Permit)

##### General

N/A

#### 4.5.8 Fertilizers (Part III.A.3.e in the Permit)

##### General

All fertilizer will be stored, handled, and disposed of per manufacturers recommendations and state and federal laws

##### Specific Pollution Prevention Practices

Daily leak and spill check, weather condition check	
<b>Description:</b> Containers will be checked for spills or leaks and storage conditions (temperature, humidity, etc) will be checked. On days when application is to take place, weather conditions will be checked to ensure suitable conditions are expected per manufacturers recommendations	
<b>Installation</b>	Will be implemented at the start of site construction activities or when materials arrive on site
<b>Maintenance Requirements</b>	If storage conditions are found to not be met, containers will be moved to a location where storage conditions are appropriate. Any spills will be immediately cleaned per state and federal laws. On days when application is planned, weather conditions will be checked for suitability. All federal, state, and local laws will be followed for application process as required

#### 4.5.9 Releases in Excess of Reportable Quantities. (Part III.A.3.f in the Permit)

Discharges of hazardous substances and oil resulting from on-site spills are not authorized by this permit. (Part I.D.5). In the event of a discharge resulting from a spill of hazardous substances or oil from a construction site (Parts III.A.3.c.iii and Part III.A.3.c.iv), where the release is an amount equal to or in excess of a reporting quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurring during a 24 hour period:

i. You shall notify the National Response Center (NRC) as soon as you have knowledge of the discharge in accordance with the requirements of 40 CFR Part 110, 40 CFR Part 117, and 40 CFR Part 302;

- 1-800-424-8802 or
- 202-267-2675 (in the Washington, DC metropolitan area)

ii. You shall notify the Maryland Department of the Environment as soon as you have knowledge of the discharge;

- Between 8AM and 5PM at 410-537-3510
- All other hours at (866) 633-4686

You must also, within seven (7) calendar days of knowledge of the release, provide a description of the release, the circumstances leading to the release, and the date of the release to the Department's compliance program. Local requirements may necessitate additional reporting of spills or discharges to local emergency response, public health, or drinking water supply agencies. No condition of this general permit shall release the permittee from any responsibility or requirements under other environmental statutes or regulations.

## SECTION 5: INSPECTION, MAINTENANCE, AND CORRECTIVE ACTION

### 5.1 Inspection Personnel and Procedures (Part III.C of the Permit)

<b>Instructions – Describe inspection procedures</b> Personnel Responsible Inspection schedule Record daily rainfall (See Appendix VI)
-------------------------------------------------------------------------------------------------------------------------------------------------

Personnel Responsible for Inspections	
<b>Name</b>	Insert Name and Title (to be provided by Contractor)
<b>Certificate of attendance for a Responsible Personnel Training Program</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Insert date received certificate of attendance or attendance date (N/A)
<b>Has the Approval Authority waived the Certificate of Training requirement?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

[Repeat as needed.]

### Inspection Schedule

<b>Standard Frequency:</b>
<input type="checkbox"/> Every 7 calendar days and within 24 hours of a 0.25" rain or the occurrence of runoff from snowmelt sufficient to cause a discharge <input type="checkbox"/> Every 4 business days
<b>Increased Frequency (if applicable):</b>
<b>For areas of sites discharging to waters designated as Tier II.</b> <input type="checkbox"/> Every 4 calendar days and within 24 hours of a 0.25" rain
<b>Rain Gauge Location (if applicable)</b>
N/A

--

**Inspection Report Forms**

Contractor to append a copy of any inspection report forms to be used

**5.2 Corrective Action (Part III.D of the Permit)**

<b>Instructions – Describe correction action</b>
--------------------------------------------------

Describe the procedures for taking corrective action in compliance
--------------------------------------------------------------------

**Personnel Responsible for Corrective Actions**

Name and Title: Insert Name and Title (to be provided by Contractor)

Telephone number: Insert Phone Number (to be provided by Contractor)

Email: Insert email (to be provided by Contractor)

Area of site responsible for: Entire project site

*[Repeat as needed.]*

**Corrective Action Forms**

Contractor to append a copy of any correction action forms to be used

## SECTION 6: TRAINING (Part III.E of the Permit)

### Instructions – Describe training

The following personnel, at a minimum, must receive training, and therefore should be listed individually in the table below:

Personnel who are responsible for the design, installation, maintenance, and repair of stormwater controls

Personnel responsible for the application and storage of treatment chemicals

Personnel who are responsible for conducting inspections

Personnel who are responsible for taking corrective actions

Personnel who are responsible for spill response

Personnel must be trained to understand the following if related to the scope of their job duties:

The permit deadlines associated with installation, maintenance, and removal of stormwater controls and with stabilization;

The location of all stormwater controls on the site required by this permit, and how they are to be maintained;

The proper procedures to follow with respect to the permit's pollution prevention requirements; and

When and how to conduct inspections, record applicable findings, and take corrective actions.

Document all training.

**By signing below you acknowledge that you have received a copy of the SWPPP and are aware of all the requirements thereof.**

### Documentation for Completion of Training

Name	Describe Training	Completion date
Contractor personnel to sign at preconstruction meeting	Insert Text	Completion date

## SECTION 7: EROSION AND SEDIMENT CONTROLS (Part III.F.f.i)

For all erosion and sediment controls, refer to the approved plans and specifications included in the contract documents.

### Approved Erosion and Sediment Control Plans

Plan Number	ESC-1 to ESC-20
Date	8-13-2024

## SECTION 8: CERTIFICATION AND NOTIFICATION

### Instructions – Certification statement

The following certification statement must be signed and dated by a person who meets the requirements.

This certification must be re-signed in the event of a SWPPP Modification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Title:	Gwenn Crupi	On behalf of County
Signature and Date:		

Name and Title:		
Signature and Date:		

## SECTION 9: Appendices

### 9.1 Amendment Log

Use the table below to record any SWPPP Amendments.

No.	Description of the Amendment	Date of Amendment	Amendment Prepared by [Name(s) and Title]

## 9.2 Site Maps (Part III.F.2.d of the permit)

### Instructions – Attach site maps

For most projects, a series of site maps is necessary and recommended.

The first should show the undeveloped site and its current features.

An additional map or maps should be created to show the developed site or, for more complicated sites, show the major phases of development.

Site maps must include the following features:

- Boundaries of the property;

- Locations where earth-disturbing activities will occur, noting any phasing of construction activities and any demolition activities;

- Approximate slopes before and after major grading activities;

- Note areas of steep slopes

- Locations where sediment, soil, or other construction materials will be stockpiled;

- Locations of any crossings of waters of this State;

- Designated points where vehicles will exit onto paved roads;

- Locations of structures and other impervious surfaces upon completion of construction; and

- Locations of on-site and off-site construction support activity areas covered by this permit.

Locations of all waters of this State, including wetlands, on your site and within one mile downstream of the site's discharge point.

- Indicate which waterbodies are listed as impaired

- Indicate which are identified as Tier II waters

Areas of federally listed critical habitat for endangered or threatened species within the site and/or at discharge locations.

Type and extent of pre-construction cover on the site

- Examples: vegetative cover, forest, pasture, pavement, structures

- Drainage pattern(s) of stormwater and authorized non-stormwater before and after major grading activities.

Stormwater and authorized non-stormwater discharge locations, including:

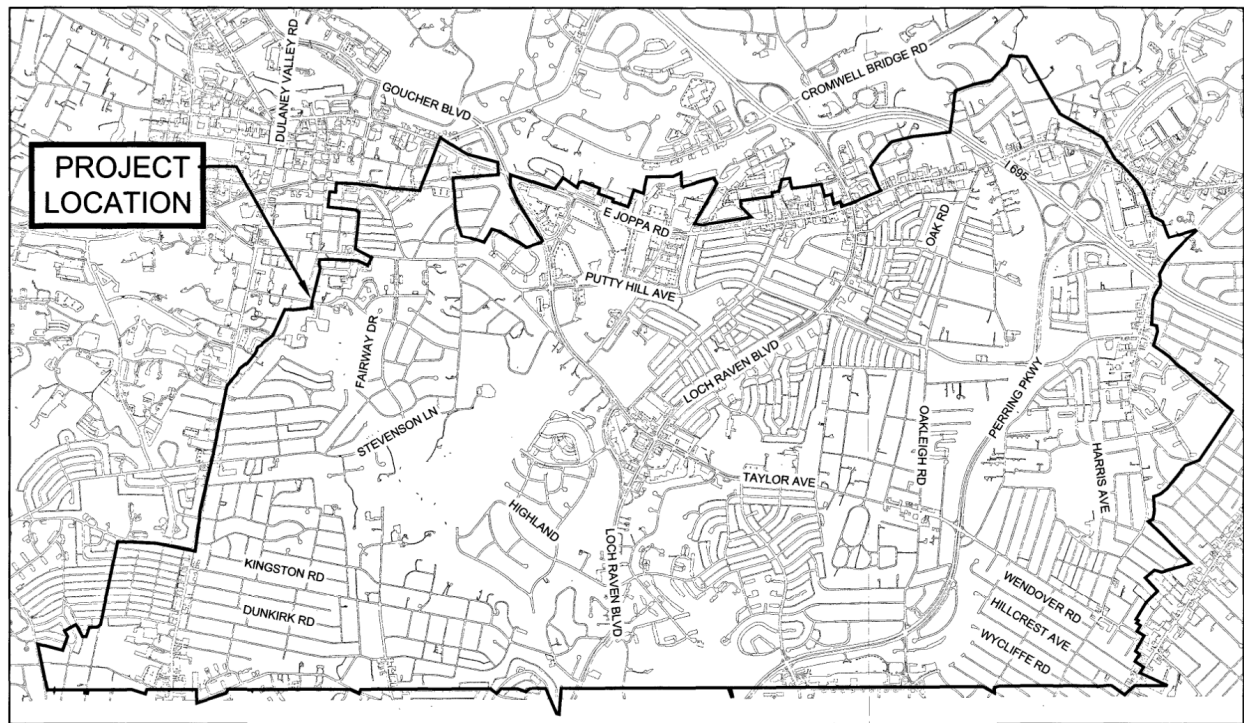
- Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets; and

- Locations where stormwater or allowable non-stormwater will be discharged to waters of this State (including wetlands).

- Locations of all potential pollutant-generating activities.

- Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with the permit.

- Locations where polymers, flocculants, or other treatment chemicals will be used and stored.





### 9.3 Sample Subcontractor Certifications/Agreements

You may use the sample below as a template to record any subcontractor agreements.

#### SUBCONTRACTOR CERTIFICATION STORMWATER POLLUTION PREVENTION PLAN

Project Number: \_\_\_\_\_

Project Title: \_\_\_\_\_

Operator(s): \_\_\_\_\_

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

**I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.**

This certification is hereby signed in reference to the above-named project:

**Company:**

**Address:**

**Telephone Number:**

**Type of construction service to be provided:**

**Signature:**

**Title:**

**Date:**

#### **9.4 Cationic Chemical Treatment Approval Form**

Use the form found on the construction website for approval for the use of Cationic Chemical Additives: [https://mde.maryland.gov/programs/water/wwp/Pages/gp\\_construction.aspx](https://mde.maryland.gov/programs/water/wwp/Pages/gp_construction.aspx)

When submitting for the approval of Cationic Chemical Additives, the form must be accompanied with the information contained in section 4.12 of the SWPPP. The approval authority may request additional information.

Remember that final approval from the appropriate authority must be received prior to the use of Cationic Chemical Additives.

### 9.5 Grading and Stabilization Activities Log

*Use the table below to record any grading/stabilization activities.*

Date Grading Activity Initiated	Description of Grading Activity	Description of Stabilization Measure and Location	Date Grading Activity Ceased (Temporary or Permanent)	Date When Stabilization Measures Initiated
Date			Date <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	Date
Date			Date <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	Date
Date			Date <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	Date
Date			Date <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	Date

## 9.6 Rainfall Log

Use the table below to record the rainfall gauge readings at the beginning and end of each workday.

Month/Year			Month/Year			Month/Year		
Day	Start time	End time	Day	Start time	End time	Day	Start time	End time
1			1			1		
2			2			2		
3			3			3		
4			4			4		
5			5			5		
6			6			6		
7			7			7		
8			8			8		
9			9			9		
10			10			10		
11			11			11		
12			12			12		
13			13			13		
14			14			14		
15			15			15		
16			16			16		
17			17			17		
18			18			18		
19			19			19		
20			20			20		
21			21			21		
22			22			22		
23			23			23		
24			24			24		

Month/Year			Month/Year			Month/Year		
Day	Start time	End time	Day	Start time	End time	Day	Start time	End time
25			25			25		
26			26			26		
27			27			27		
28			28			28		
29			29			29		
30			30			30		
31			31			31		

### 9.6 SWPPP Training Log

*You may use the sample below as a template to record specific personnel training.*

#### Stormwater Pollution Prevention Training Log

<b>Project Name:</b>
<b>Project Location:</b>
<b>Instructor's Name(s):</b>
<b>Instructor's Title(s):</b>

Course Location	Date	Course Length (hours)

Stormwater Training Topic: *(check as appropriate)*

- |                                                        |                                                         |
|--------------------------------------------------------|---------------------------------------------------------|
| <input type="checkbox"/> Sediment and Erosion Controls | <input type="checkbox"/> Emergency Procedures           |
| <input type="checkbox"/> Stabilization Controls        | <input type="checkbox"/> Inspections/Corrective Actions |
| <input type="checkbox"/> Pollution Prevention Measures | <input type="checkbox"/> Other: _____                   |

<b>Specific Training Objective:</b>

Attendee Roster:

No.	Name of Attendee	Company
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

*(attach additional pages as necessary)*



KEVIN KAMENETZ  
County Executive

VINCENT J. GARDINA, *Director*  
*Department of Environmental Protection*  
*and Sustainability*

Stormwater Management

410-887-3768  
FAX 410-887-4804

February 28, 2017

OBG  
2809 South Lynn Haven Road, Suite 305  
Virginia Beach, VA 23452  
Attn: Craig T. Pearson, P.E.

RE: Herring Run Phase II Sewer Rehabilitation  
Stormwater Management Variance  
Back River Watershed  
**EPS Project I.D. M170032**  
**EPS Tracking Number: 05-17-2425**  
**06-07-2426**

Dear Mr. Pearson:

This office has reviewed the information submitted and finds that a stormwater management variance can be granted for this project under Section 33-4-113 (a) (2) of Title 4 of the Baltimore County Code. This section of the regulations allows a stormwater management variance to be granted if there are exceptional circumstances such that strict adherence to the provisions of this article would result in unreasonable hardship or practical difficulty and not fulfill the intent of the regulations.

This project is for the rehabilitation of sanitary manholes and pipelines. The existing cover conditions will be reestablished once the rehab is completed. Although the disturbed area is in excess of 5,000 square feet, there will be no increase in impervious area or runoff as a result of this project.

Please contact Michael P. Doyle of my staff at 410-887-3768 should you have any questions.

Very truly yours,

Vincent J. Gardina, Director  
Department of Environmental Protection  
& Sustainability

VJG:jcm

c: Lisa Eicholtz (MS 1204)  
Michael P. Doyle



**BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS  
BUREAU OF TRAFFIC ENGINEERING AND TRANSPORTATION PLANNING  
INTER-OFFICE CORRESPONDENCE**

DATE: August 15, 2023

TO: Kyle Glazier  
Sewer Design Section

FROM: W. Keith Link  
Traffic Engineering

SUBJECT: Herring Run Phase 2 Sewer Rehabilitation

The above captioned project has been reviewed by this bureau with particular reference to the maintenance of traffic during construction. An on-site investigation of this area was made and as a result the following comments shall be included in the contract under "Special Provisions":

1. A minimum single lane of traffic must be maintained at all times.
2. At the end of each workday, the contractor is required to complete the following:
  - a. Backfill and/or plate over all open excavations so that two lanes of traffic are maintained.
  - b. Remove all equipment and material from the traveled portion of the roadway. Also, equipment and materials should not be stored in such a manner as to obstruct sight distance at any driveway or intersecting road.
  - c. Cover or remove all signs referring to a single-lane operation. Also, it may be necessary for the contractor to provide "STEEL PLATES AHEAD" signs on each approach to the construction area, if appropriate, or as directed by the inspector for the project.
3. All existing driveway access must be maintained at all times.

The contractor is to be responsible for the fabrication, installation and maintenance of all traffic control devices. Said devices shall be in accordance with the Manual on Uniform Traffic Control Devices. Also, the contractor may be required to furnish additional signs should conditions warrant. Regarding the control of traffic through work areas, Part 6 "Temporary Traffic Control" of The Manual on Uniform Traffic Control Devices (Latest Edition) shall be utilized.

Once the contractor has received their notice to proceed, the Division of Traffic Engineering will inventory the existing permanent traffic control devices throughout the construction area. Should it be necessary for any devices to be removed by the contractor, his personnel, or their sub-contractor during construction, the contractor shall be responsible for the safe storage of these devices. Should they become damaged, defaced, lost, etc., the contractor will be billed for replacement of these permanent devices. The contractor will also be responsible for the re-installation of any permanent devices removed during construction.

/WKL/

**Electric Relocation Design**  
2900 Lord Baltimore Drive  
1st Floor  
Baltimore, Maryland 21244

June 7, 2023

4435 Waterfront Dr, Suite 205  
Glen Allen, VA 23060  
Attention: Maggie Hopkins, Project Manager

RE: Herring Run Sewershed Lining Phase 2  
Project #231-201-0077-7235  
Contract #17031SX0

Dear Mrs. Hopkins:

This acknowledges receipt of your letter and plan of June 13, 2023, for the above subject.

Pertinent comments are as follows:

**Electric** – BGE maintains Overhead and Underground facilities in the vicinity of your proposed work. It appears that there are a few areas of concern at the dig locations on pages C-12 and C-15.

On page C-12, at this location BGE maintains 2 underground primary 13kv cables cross the proposed point repair location. Please have the cable located, test pitted, and plotted to confirm. At this time, BGE anticipates no conflict at this location.

On page C-15, please locate and plot BGE Pole#250904 on plans so we are able to determine if there is a conflict at this location. For any overhead facilities in the area, the contractor should adhere to the **Maryland High Voltage Line Act**.

To provide protection of our facilities from damage during construction, it is required that the contractor installing these facilities notify “Miss Utility” on 1-800-257-7777 at least three (3) days prior to starting work so that we can arrange to mark the location of our facilities. The contractor should also be advised to exercise care when digging adjacent to and crossing these facilities.

**Gas** - Comments to come from Aaron Jones, Gas Relocation, 410-662-2094.

**Street Lights** – Comments to come from Dan Hennessy, Sr. Lighting Account Rep, 667-313-0203.

Any comments or questions can be directed to Toya Stepney 667-313-3455.

We reserve the right to seek reimbursement for any work in the area to the extent that the legal status of our facilities justifies action.

Sincerely,

*Carlie Stottlemeyer*  
Designer, Road Relocation  
Carlie.Kuppe@bge.com  
667-313-2909



An Exelon Company

1699 Leadenhall Street  
Baltimore, MD 21230

8/29/23

Kyle Glazier  
Engineer 1  
Sewer Design Section  
Baltimore County DPWT  
410-887-3781

RE: Herring Run Sewershed-Phase II/J.O. 231-201-0077-7235

Dear Mr. Glazier,

In reference to the above mentioned project, we have reviewed your request and find the following:

1. Based on your plans of point repairs only, I anticipate no conflicts with our gas facilities.
2. While working near gas mains & services, proper caution & procedures should be followed. If spans of gas mains are to be exposed during excavation, please contact our gas engineering department at 410-470-9573 to arrange for approval of support methods & inspection. Please maintain 4' horizontal & 12" vertical clearance between existing gas facilities & any new proposed facilities.
3. The contractor will be responsible for adjusting frames and cover over our facilities within your project. Please contact Steve Scarff, Paving Department, with any questions or concerns, at 410-470-7134.

Please contact our Maps & Records group at [maprequest@bge.com](mailto:maprequest@bge.com) for current gas utility maps.

To provide protection of our facilities from damage during construction, it is desired that the contractor installing these facilities notify "Miss Utility" on 1-800-257-7777 at least two (2) days prior to starting work so that we can arrange to mark the location of our facilities. In making this notification, the contractor should: 1) state nature of work to be done; 2) give location of job; 3) advise time and date work will be started. The contractor should also be advised to exercise care when digging adjacent to and crossing these facilities.

We reserve the right to seek reimbursement for any work in the area to the extent that the legal status of our facilities justifies such action.

If you have any questions, please contact me at 667-313-3093.

Sincerely,

Charles P. Thim

Charles P. Thim

cc: Aaron Jones

## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 22<sup>nd</sup> day of May 2018, between, Donnybrook Associates, LLP ("the Property Owner"), owner of record of the property at 7914 Knollwood Road, Tax Account No. 0904504160, fully described in the deed recorded in the Land Records of Baltimore County at Liber 22211, folio 340 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

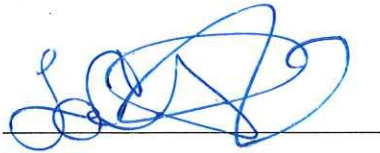
of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 22<sup>nd</sup> day of May, 2018, for the purposes herein stated.

Witness:



Property Owner: Donnybrook Associates, LLP  
By: Continental Realty Investors Corp., General Partner

BY:  (SEAL)

Name: Gene C. Parker, Jr.

Title: Vice President

BY: \_\_\_\_\_ (SEAL)

Name:

Title:

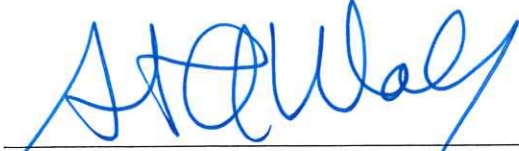
BY: \_\_\_\_\_ (SEAL)

Name:

Title:



APPROVED AND ACCEPTED:



Edward C. Adams, Jr., PE, Director  
Department of Public Works

STEVEN A. WALSH

BALTIMORE COUNTY, MARYLAND:

  
WITNESS

BY:



Fred Homan  
County Administrative Officer

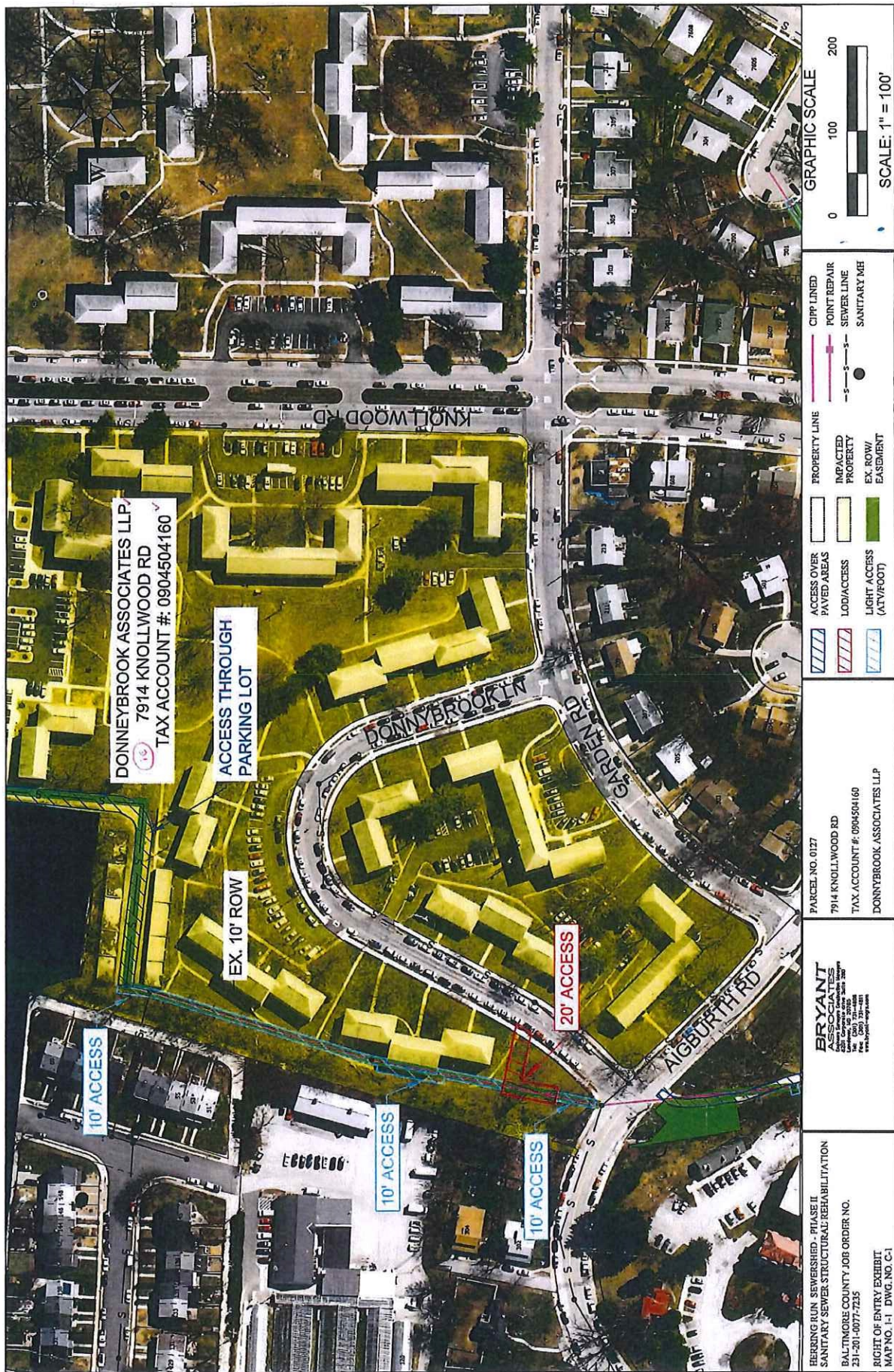
APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.







## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 23<sup>rd</sup> day of April 2018 between, Aigburth Vale II, LLC ("the Property Owner"), owner of record of the property at 212 Aigburth Road, Tax Account No. 2200029868, fully described in the deed recorded in the Land Records of Baltimore County at Liber 38575, folio 429 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 23<sup>rd</sup> day of April, ~~2017~~, 2018, for the purposes herein stated.

Witness:

Property Owner: Aigburth Vale II, LLC

[Signature]

BY: [Signature] (SEAL)  
Name: Gerard Jacob  
Title: Resident Agent

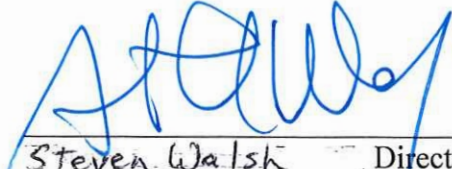
\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

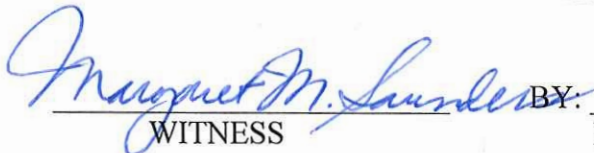

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven Walsh, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

 BY:   
\_\_\_\_\_  
WITNESS Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.





**AIGBURTH VALE LLC**  
212 AIGBURTH RD  
TAX ACCOUNT #: 2200029868 ✓

**EX. 50' UTILITY EASEMENT**

**10' ACCESS**

**VARIABLE WIDTH ACCESS**

**EX. 10' ROW**

**ACCESS THROUGH GRAVEL/PAVED AREA**

**HERRING RUN SEWERSHED - PHASE II**  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-2 DWG. NO C-1, C-2

**BRYANT ASSOCIATES**  
Engineers, Surveyors, Construction Managers  
Landover, MD 20785  
Tel: (301) 731-4808  
Fax: (301) 731-4811  
www.bryant-engr.com

PARCEL NO. 0429  
212 AIGBURTH RD  
TAX ACCOUNT #: 2200029868  
AIGBURTH VALE LLC

	ACCESS OVER PAVED AREAS
	LOD/ACCESS
	LIGHT ACCESS (ATV/FOOT)
	PROPERTY LINE
	IMPACTED PROPERTY
	EX. ROW/ EASEMENT
	CIPP LINED
	POINT REPAIR
	SEWER LINE
	SANITARY MH

**GRAPHIC SCALE**  
0 50 100  
**SCALE: 1" = 50'**



## **IRREVOCABLE RIGHT OF ENTRY AGREEMENT**

**With  
Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this \_\_\_\_\_ day of \_\_\_\_\_, 2018, between, Tasia Ntavos ("the Property Owner"), owner of record of the property at 7603 Knollwood Road, Tax Account No. 0902202990, fully described in the deed recorded in the Land Records of Baltimore County at Liber 14589, folio 623 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.


5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this \_\_\_\_\_ day of \_\_\_\_\_, 2018, for the purposes herein stated.

Witness:

Property Owner:



BY  (SEAL)  
Name: Tasia Ntavos  
Title:

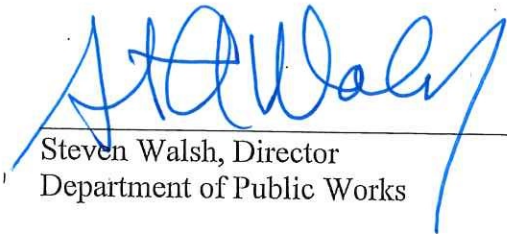
\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
Steven Walsh, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

 BY:   
WITNESS Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.







## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 27<sup>th</sup> day of May 2018, between, Fergal R. Mullally and Susan E. Mullally ("the Property Owner"), owner of record of the property at 7113 Oxford Road, Tax Account No. 0912590600, fully described in the deed recorded in the Land Records of Baltimore County at Liber 39250, folio 205 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 27<sup>th</sup> day of May, 2018, for the purposes herein stated.

Witness:

Property Owner:

\_\_\_\_\_

BY: Fergal Mullally (SEAL)  
Name: Fergal R. Mullally  
Title:

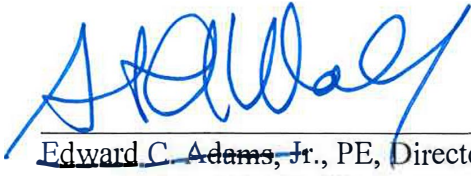
\_\_\_\_\_

BY: Susan E. Mullally (SEAL)  
Name: Susan E. Mullally  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:



~~Edward C. Adams, Jr., PE, Director~~  
Department of Public Works

STEVEN A. WATKINS

BALTIMORE COUNTY, MARYLAND:



WITNESS

BY:



Fred Roman  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)



OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.





HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION

BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235

RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-14 DWG. NO. C-5

**BRYANT ASSOCIATES**  
Engineers, Surveyors, Construction Managers  
10000 Greenway Drive, Suite 200  
Lanham, MD 21075  
Tel: (301) 731-4800  
Fax: (301) 731-4811  
www.bryant-inc.com

PARCEL NO. 0130  
7113 OXFORD RD  
TAX ACCOUNT #: 0912590600  
DAVID A. BRINKER  
ELIZABETH A. ALLEN

Feigal R. Mullally  
Susan E. Mullally  
7113 OXFORD RD  
TAX ACCOUNT #: 0912590600

ACCESS OVER PAVED AREAS	PROPERTY LINE	CIPP LINED
LOD/ACCESS	IMPACTED PROPERTY	POINT REPAIR
LIGHT ACCESS (ATV/FOOT)	EX. ROW/ EASEMENT	SEWER LINE
		SANITARY MH

GRAPHIC SCALE

0 30 60

SCALE: 1" = 30'



RW 2017-030  
J.O.: 201-0077-7235  
Item: 15(E)  
Election District: 09c04

**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Right of Entry Agreement ("Agreement"), made this 4<sup>th</sup> day of November 2020, ~~between William C. McDonnell and Constance M. McDonnell~~, Owners of record of the property more fully described in Exhibit A attached hereto and made a part hereof (the "Property") and Baltimore County, Maryland, a body corporate and politic ("County").

WHEREAS, the County desires to enter upon a portion of the Property for the purpose of the installation and repair of public sanitary sewer systems. Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the undersigned Property Owners agree that immediate entry as above described will not adversely affect the interests of the Property Owners, are willing to grant unto the County, its officials, agents, employees, contractors and assigns, permission to immediately enter the upon the Property, and acknowledges that this grant of entry rights shall not be revocable by the Owners, their successors or assigns, or any third-party authorized or purporting to be authorized to act on behalf of the Owners, their successors or assigns.

NOW THEREFORE, for good and valuable consideration stated herein, the receipt and sufficiency of which is hereby acknowledged, the Property Owners do hereby irrevocably grant unto the County, its successors and assigns, contractors, agents, employees and/or licensees, the non-exclusive right to enter upon the Property, for the above-described purposes, effective immediately upon execution by the parties hereto.

IT IS UNDERSTOOD AND AGREED that this IRREVOCABLE RIGHT OF ENTRY AGREEMENT is granted subject to the following conditions except as specified in Exhibit A, as attached hereto, if applicable:

1. **Term** The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of 1 year from the start of construction of the entire project.
2. **Indemnification** In consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time, agrees on behalf of itself, its respective contractors and employees, to indemnify, protect, and hold harmless the undersigned Property Owner, their personal representatives, successors, heirs and assigns,

from and against any and all claims, demands, and actions in respect to any loss, injury or damages caused by or arising out of the actions of the County, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement.

3. **Remedies** In the event of any alleged breach by the County, of the obligations contained herein, including but not limited to activity on, over or against the Property beyond the scope of the aforementioned purposes, the Property Owners, their personal representatives, successors, heirs and assigns shall, provide written notice stating the allegations. Upon receipt of the written notice, the County will have reasonable period to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the County has not satisfactorily responded to the Property Owners within 30 days, the sole remedy hereunder is an action for specific performance.
4. **Notices** In alleging a breach of the agreement by the County, the Property Owners, their personal representatives, successors, heirs or assigns shall notify the County in writing immediately upon discovering the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the County:

Amy L. Hicks Grossi  
Assistant County Attorney  
Head, Real Estate Compliance  
Baltimore County Office Building  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

The parties hereto agree that this Agreement shall be deemed validly executed and delivered by a party if a party executes this Agreement and delivers a copy of the executed Agreement to the other party by facsimile, telefax or telecopier transmittal. In the event a party executes this Agreement by facsimile, or telefax, or telecopier transmittal, the signature of the party shall be witnessed at the time of signing, and the parties further agree that this Agreement may be executed in counterparts, each of which when considered together shall constitute the original Agreement. A facsimile, telefax or telecopier transmittal of a signed acceptance, addendum, amendment or notice relating to this Agreement received by facsimile, telefax or telecopier transmittal shall be deemed the equivalent of the original.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

The undersigned Property Owners join in this IRREVOCABLE RIGHT OF ENTRY AGREEMENT this 4<sup>th</sup> day of November, 20 20 for the purpose of granting the aforescribed Irrevocable Right of Entry.

WITNESS:

PROPERTY OWNER:

\_\_\_\_\_

deceased 3/6/2006 (SEAL)  
William C. McDonnell  
Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_



Constance M. McDonnell (SEAL)  
Constance M. McDonnell  
Address: 7111 Oxford Rd.

Baltimore, MD. 21212-1617  
Telephone Number: (410) 828-0038

(SIGNATURES CONTINUE ON FOLLOWING PAGE)

APPROVED AND ACCEPTED:



Department of Public Works

Witness:

Baltimore County, Maryland



By:   
Stacy L. Rodgers  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)

   
OFFICE OF THE COUNTY ATTORNEY

(\*Approval of Legal Form and Sufficiency Does Not  
Convey Approval Or Disapproval of the Substantive  
Nature of This Transaction. Approval is Based Upon  
Typeset Document-All Modifications Require Re-Approval.)



Exhibit 'A'





**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Right of Entry Agreement ("Agreement"), made this 16<sup>th</sup> day of April, 2017, between Robert M. Paymer and Parvathy A. Pillai, Owners of record of the property more fully described in Exhibit A attached hereto and made a part hereof (the "Property") and Baltimore County, Maryland, a body corporate and politic ("County").

WHEREAS, the County desires to enter upon a portion of the Property for the purpose of the installation and repair of public sanitary sewer systems. Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the undersigned Property Owners agree that immediate entry as above described will not adversely affect the interests of the Property Owners, are willing to grant unto the County, its officials, agents, employees, contractors and assigns, permission to immediately enter the upon the Property, and acknowledges that this grant of entry rights shall not be revocable by the Owners, their successors or assigns, or any third-party authorized or purporting to be authorized to act on behalf of the Owners, their successors or assigns.

NOW THEREFORE, for good and valuable consideration stated herein, the receipt and sufficiency of which is hereby acknowledged, the Property Owners do hereby irrevocably grant unto the County, its successors and assigns, contractors, agents, employees and/or licensees, the non-exclusive right to enter upon the Property, for the above-described purposes, effective immediately upon execution by the parties hereto.

IT IS UNDERSTOOD AND AGREED that this IRREVOCABLE RIGHT OF ENTRY AGREEMENT is granted subject to the following conditions except as specified in Exhibit A, as attached hereto, if applicable:

1. **Term** The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of 1 year from the start of construction of the entire project.
2. **Indemnification** In consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time, agrees on behalf of itself, its respective contractors and employees, to indemnify, protect, and hold harmless the undersigned Property Owner, their personal representatives, successors, heirs and assigns,

from and against any and all claims, demands, and actions in respect to any loss, injury or damages caused by or arising out of the actions of the County, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement.

3. **Remedies** In the event of any alleged breach by the County, of the obligations contained herein, including but not limited to activity on, over or against the Property beyond the scope of the aforementioned purposes, the Property Owners, their personal representatives, successors, heirs and assigns shall, provide written notice stating the allegations. Upon receipt of the written notice, the County will have reasonable period to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the County has not satisfactorily responded to the Property Owners within 30 days, the sole remedy hereunder is an action for specific performance.
4. **Notices** In alleging a breach of the agreement by the County, the Property Owners, their personal representatives, successors, heirs or assigns shall notify the County in writing immediately upon discovering the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the County:

Amy L. Hicks Grossi  
Assistant County Attorney  
Head, Real Estate Compliance  
Baltimore County Office Building  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

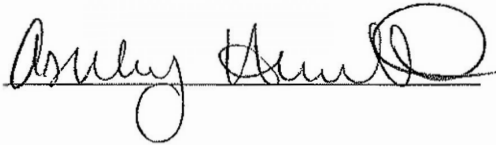
The parties hereto agree that this Agreement shall be deemed validly executed and delivered by a party if a party executes this Agreement and delivers a copy of the executed Agreement to the other party by facsimile, telefax or telecopier transmittal. In the event a party executes this Agreement by facsimile, or telefax, or telecopier transmittal, the signature of the party shall be witnessed at the time of signing, and the parties further agree that this Agreement may be executed in counterparts, each of which when considered together shall constitute the original Agreement. A facsimile, telefax or telecopier transmittal of a signed acceptance, addendum, amendment or notice relating to this Agreement received by facsimile, telefax or telecopier transmittal shall be deemed the equivalent of the original.

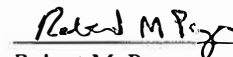
[SIGNATURES APPEAR ON FOLLOWING PAGES]

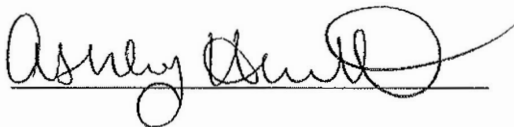
The undersigned Property Owners join in this IRREVOCABLE RIGHT OF ENTRY AGREEMENT this 16<sup>th</sup> day of Apr. 1, 2019, for the purpose of granting the aforescribed Irrevocable Right of Entry.

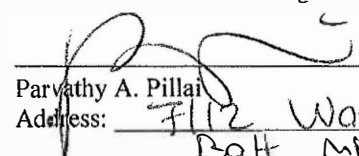
WITNESS:

PROPERTY OWNER:



 (SEAL)  
Robert M. Paymer  
Address: 7112 Wardman Rd  
Bethesda, MD 20812  
Telephone Number: 897 830 1981



 (SEAL)  
Parvathy A. Pillai  
Address: 7112 Wardman Rd  
Bethesda, MD 20812  
Telephone Number: 305 588 4599

(SIGNATURES CONTINUE ON FOLLOWING PAGE)

APPROVED AND ACCEPTED:

\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

Witness:

Baltimore County, Maryland

\_\_\_\_\_

By: \_\_\_\_\_

County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)

\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

(\*Approval of Legal Form and Sufficiency Does Not  
Convey Approval Or Disapproval of the Substantive  
Nature of This Transaction. Approval is Based Upon  
Typeset Document-All Modifications Require Re-Approval.)





Robert M. Paymer  
Parvathy A. Pillai  
7112 Wardman Road  
Baltimore, MD 21212-1638

TAX ACCOUNT #: 0916750410

HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. I-16 DWG. NO. C-5

**BRYANT ASSOCIATES**  
Sanitary Sewer Rehabilitation  
200 Westview Lane, Suite 200  
Londontown, MD 20785  
Tel: (301) 731-4808  
Fax: (301) 731-4811  
www.bryant-eng.com

PARCEL NO. 0130  
7112 WARDMAN RD  
TAX ACCOUNT #: 0916750410  
RICHARD L. MALLONEE  
DOLORES M. BERGER

ACCESS OVER PAVED AREAS	PROPERTY LINE	CIPP LINED
LOD/ACCESS	IMPACTED PROPERTY	POINT REPAIR
LIGHT ACCESS (ATV/FOOT)	EX. ROW/ EASEMENT	SEWER LINE
		SANITARY MH

GRAPHIC SCALE  
0 30 60  
SCALE: 1" = 30'



## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 2<sup>nd</sup> day of August 2017, between, Michele Shorter and David L. Brown, Sr. ("the Property Owner"), owner of record of the property at 1335 Heather Hill Road, Tax Account No. 0913551870, fully described in the deed recorded in the Land Records of Baltimore County at Liber 18306, folio 431 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 2<sup>nd</sup> day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:

LaChelle D.

BY: Michele Shorter (SEAL)  
Name: Michele Shorter  
Title:

LaChelle D.

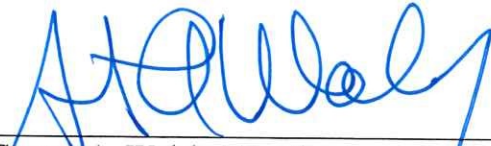
BY: David L. Brown, Sr. (SEAL)  
Name: David L. Brown, Sr.  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:  8/23/17  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

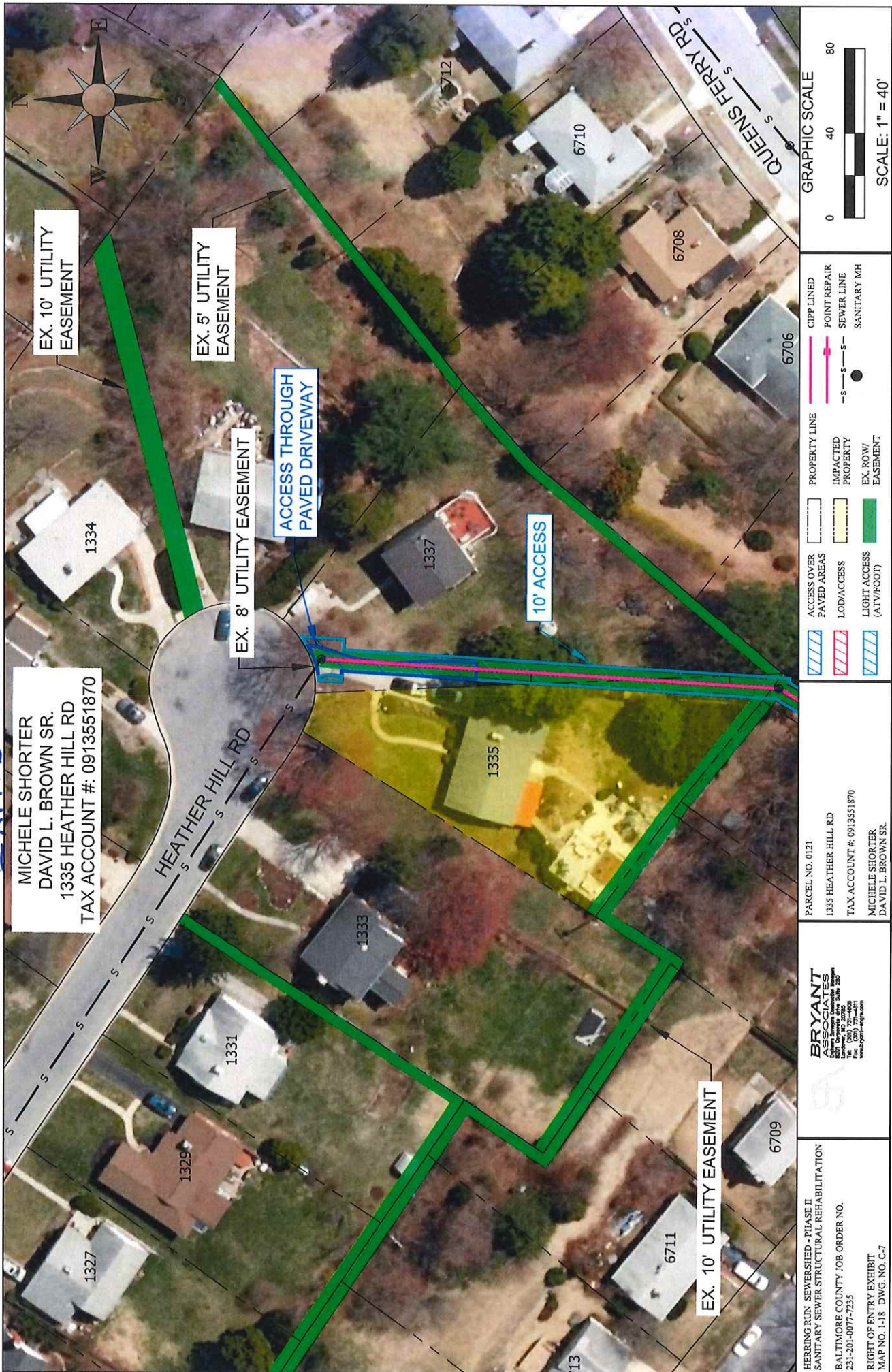
APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 14th day of April 2018, between, Ryan Andrew Casey ("the Property Owner"), owner of record of the property at 1337 Heather Hill Road, Tax Account No. 0913551820, fully described in the deed recorded in the Land Records of Baltimore County at Liber 36498, folio 389 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

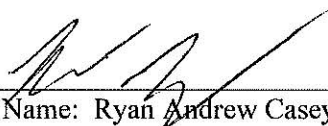
5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 4th day of April, 2018, for the purposes herein stated.

Witness:

Property Owner:



BY:  (SEAL)  
Name: Ryan Andrew Casey  
Title:


\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:


\_\_\_\_\_


BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

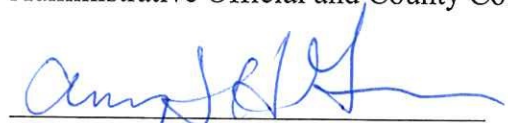
  
\_\_\_\_\_  
~~Edward C. Adams, Jr., PE, Director~~  
Department of Public Works  
*STEVEN A. WALSH PE, DIRECTOR*

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:  4/30/18  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

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Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.





1719 Ex. A



## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 30th day of July 2017, between, Rosemary Aginam ("the Property Owner"), owner of record of the property at 6703 Glenkirk Road, Tax Account No. 0908900150, fully described in the deed recorded in the Land Records of Baltimore County at Liber 30016, folio 411 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

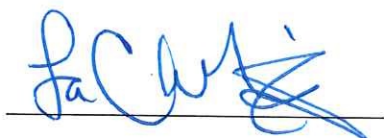
of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.


5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 30<sup>th</sup> day of July, 2017, for the purposes herein stated.

Witness:



Property Owner:

BY:  (SEAL)  
Name: Rosemary Aginam  
Title:

\_\_\_\_\_

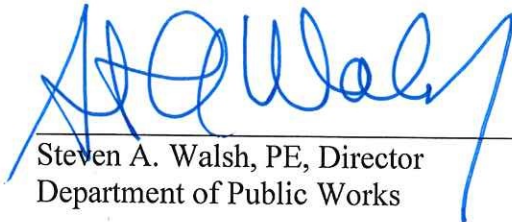
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_



BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



APPROVED AND ACCEPTED:

  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

 WITNESS  
BY:  8/23/17  
Fred Homan  
County Administrative Officer

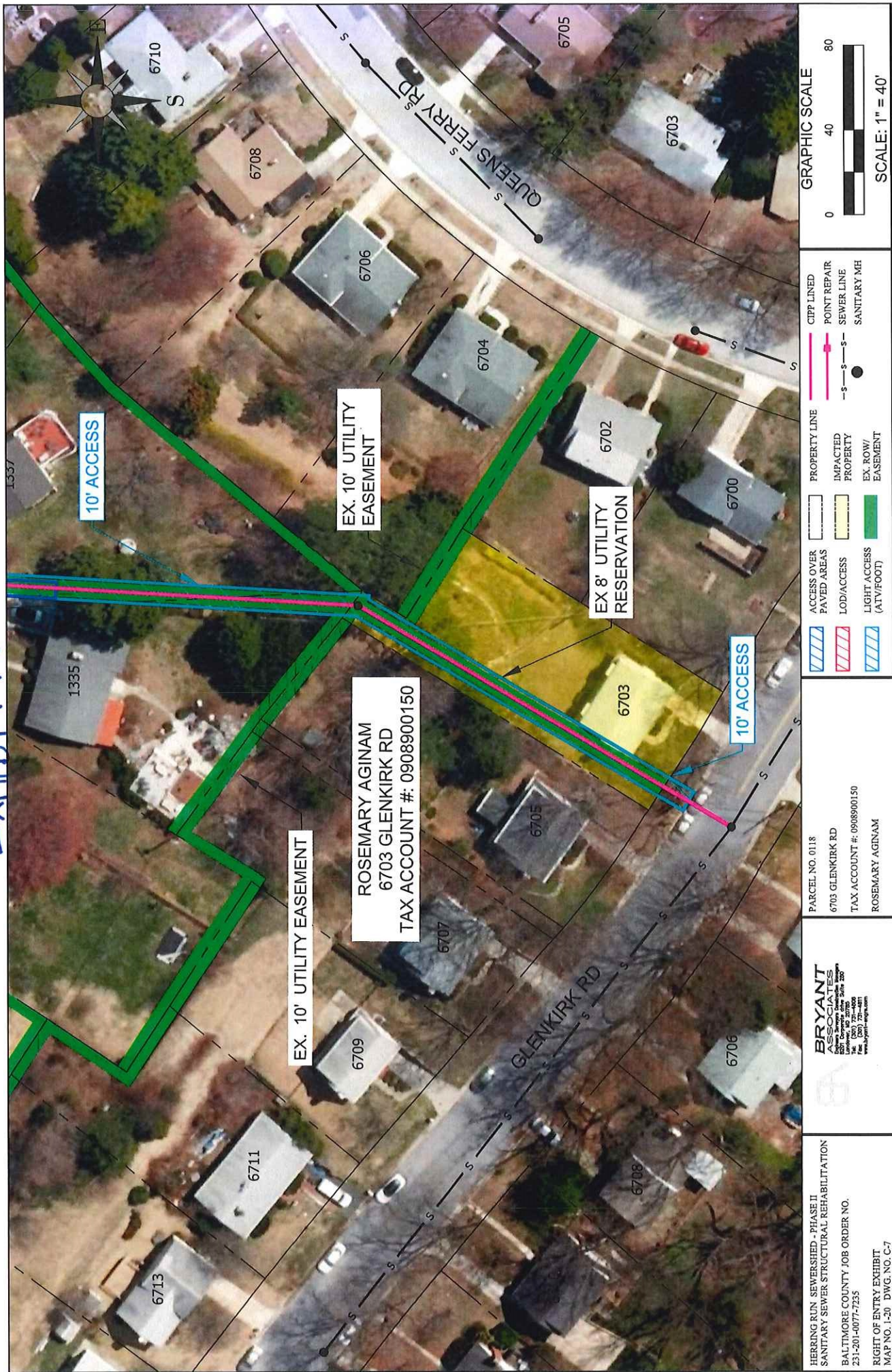
APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 14th day of JUNE 2018, between, Peggy A. Parrish ("the Property Owner"), owner of record of the property at 6704 Queens Ferry Road, Tax Account No. 0902205400, fully described in the deed recorded in the Land Records of Baltimore County at Liber 39508, folio 415 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 14<sup>th</sup> day of JUNE, 2018, for the purposes herein stated.

Witness:

Property Owner:

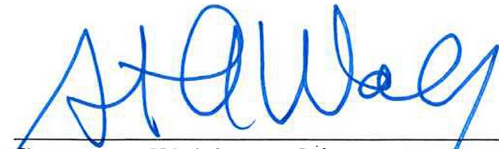
Stacy Masu

BY: Peggy A. Parrish (SEAL)  
Name: Peggy A. Parrish  
Title: home owner

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_  
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

  
\_\_\_\_\_  
BY: Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.







## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 30 day of July 2017, between, Matthew F. Penater and Ashley E. Wagner ("the Property Owner"), owner of record of the property at 522 Windwood Road, Tax Account No. 0918471590, fully described in the deed recorded in the Land Records of Baltimore County at Liber 36430, folio 469 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

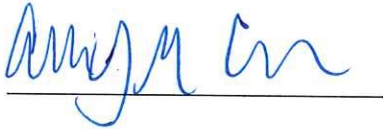
4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.


5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 30 day of July, 2017, for the purposes herein stated.

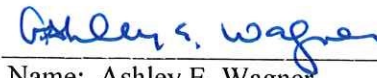
Witness:

Property Owner:



BY:  (SEAL)  
Name: Matthew F. Penater  
Title:



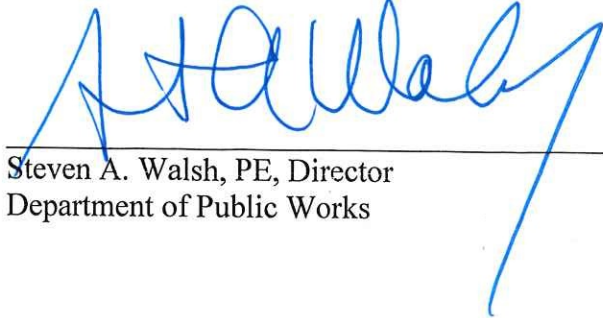
BY:  (SEAL)  
Name: Ashley E. Wagner  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
WITNESS  
BY: Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
OFFICE OF THE COUNTY ATTORNEY

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521 525 527 531 529 533

518 520 522 524 526 528 530

WINDWOOD RD

HOLLY LN

10' ACCESS

MATTHEW F. PENATER  
ASHLEY E. WAGNER  
522 WINDWOOD RD.  
TAX ACCOUNT#: 0918471590

LEGEND:

- ACCESS OVER PAVED AREAS
- LOD/ACCESS
- LIGHT ACCESS (ATV/FOOT)
- PROPERTY LINE
- IMPACTED PROPERTY
- EX. ROW/ EASEMENT
- CIPP LINED
- POINT REPAIR
- SEWER LINE
- SANITARY MH

GRAPHIC SCALE: 0 30 60

SCALE: 1" = 30'

PARCEL NO. 0107  
522 WINDWOOD RD  
TAX ACCOUNT #: 0918471590  
MATTHEW F. PENATER  
ASHLEY E. WAGNER

**BRYANT**  
Engineers, Surveyors, Architects  
2000  
Lanham, MD 20655  
Tel: (301) 731-4411  
Fax: (301) 731-4411  
www.bryant-engineers.com

HERRING RUN SEVERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-22 DWG. NO. C-8



**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 15<sup>th</sup> day of August 2017, between, Benjamin C. Rohm and Ashleigh E. Rohm ("the Property Owner"), owner of record of the property at 1101 St. Albans Road, Tax Account No. 2200011943, fully described in the deed recorded in the Land Records of Baltimore County at Liber 29494, folio 347 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

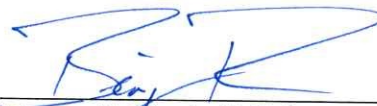
5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 1 day of September, 2017, for the purposes herein stated.


Witness:

Property Owner:



BY:  (SEAL)  
Name: Benjamin C. Rohm  
Title:

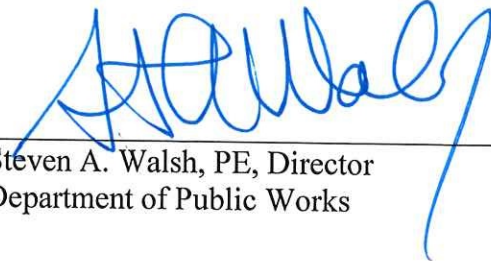


BY:  (SEAL)  
Name: Ashleigh E. Rohm  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:  9/27/17  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

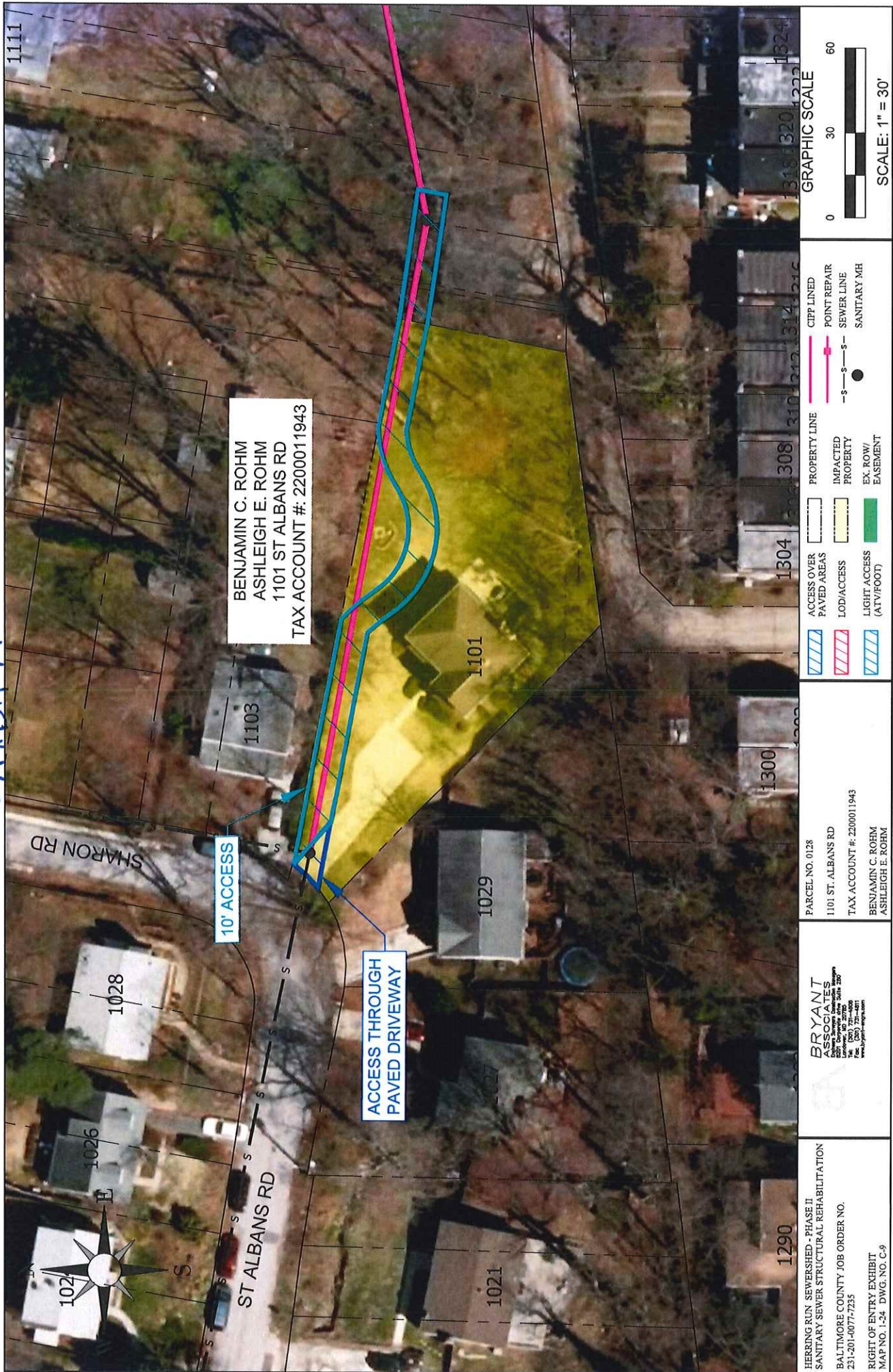
APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 31<sup>st</sup> day of July 2017, between, Candace McCall ("the Property Owner"), owner of record of the property at 1107 Overbrook Road, Tax Account No. 0917100390, fully described in the deed recorded in the Land Records of Baltimore County at Liber 21122, folio 496 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

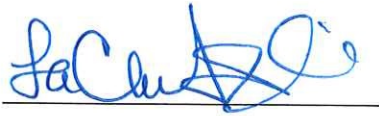
4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 31<sup>st</sup> day of July, 2017, for the purposes herein stated.

Witness:

Property Owner:



BY: Candace McCall (SEAL)  
Name: Candace McCall  
Title:

\_\_\_\_\_

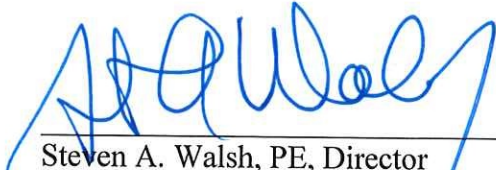
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:

  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

8/23/17

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

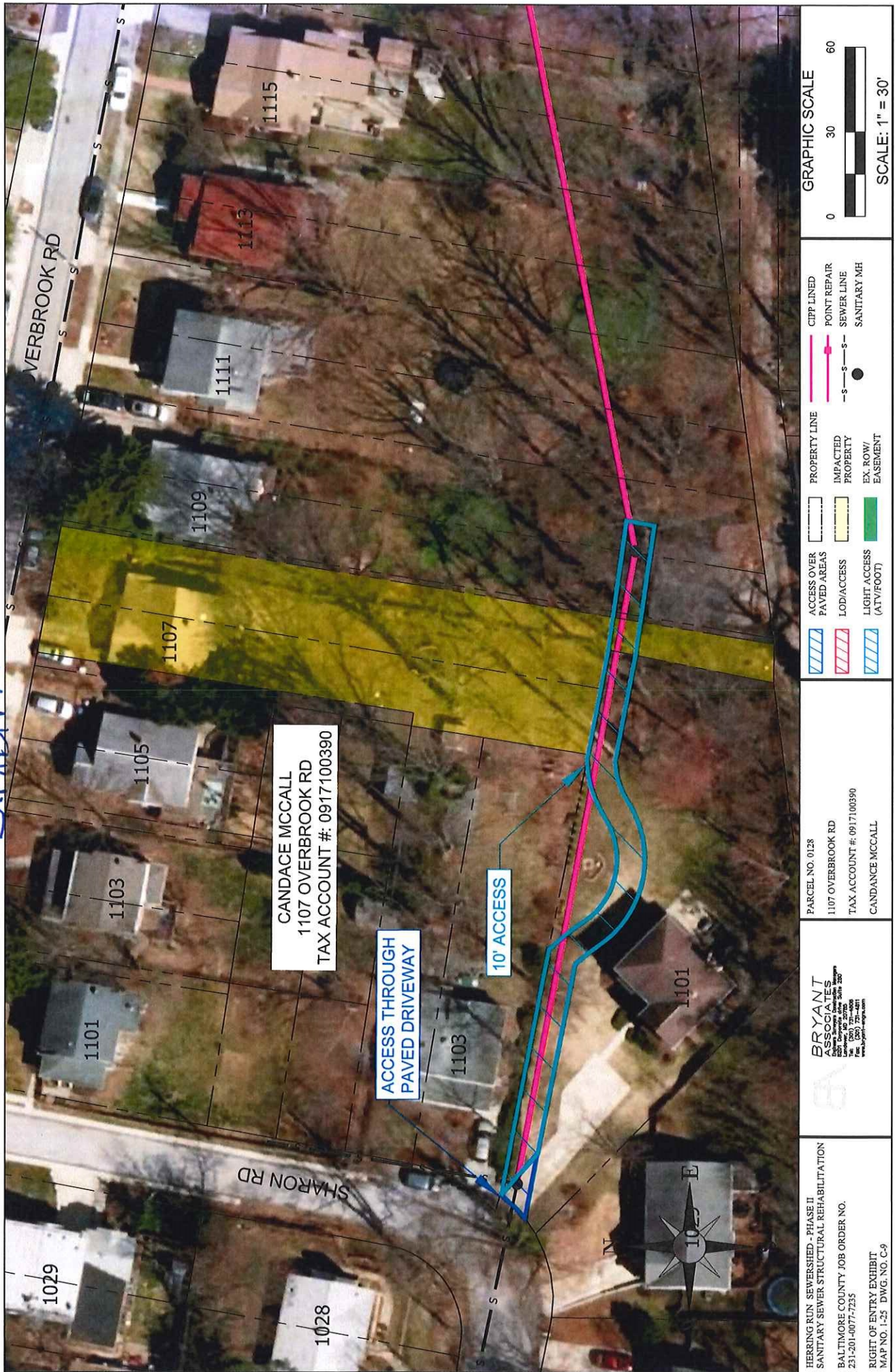
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

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Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 31 day of July 2017, between, Werner Hauger, Trustee ("the Property Owner"), owner of record of the property at 1109 Overbrook Road, Tax Account No. 0918475670, fully described in the deed recorded in the Land Records of Baltimore County at Liber 35345, folio 120 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 31 day of JULY, 2017, for the purposes herein stated.

Witness:

Property Owner:



BY:  (SEAL)  
Name: Werner Hauger, Trustee  
Title:

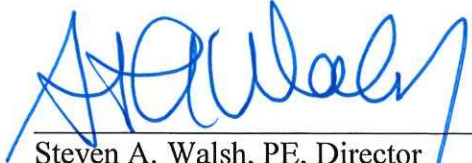
\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:  8/23/17  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

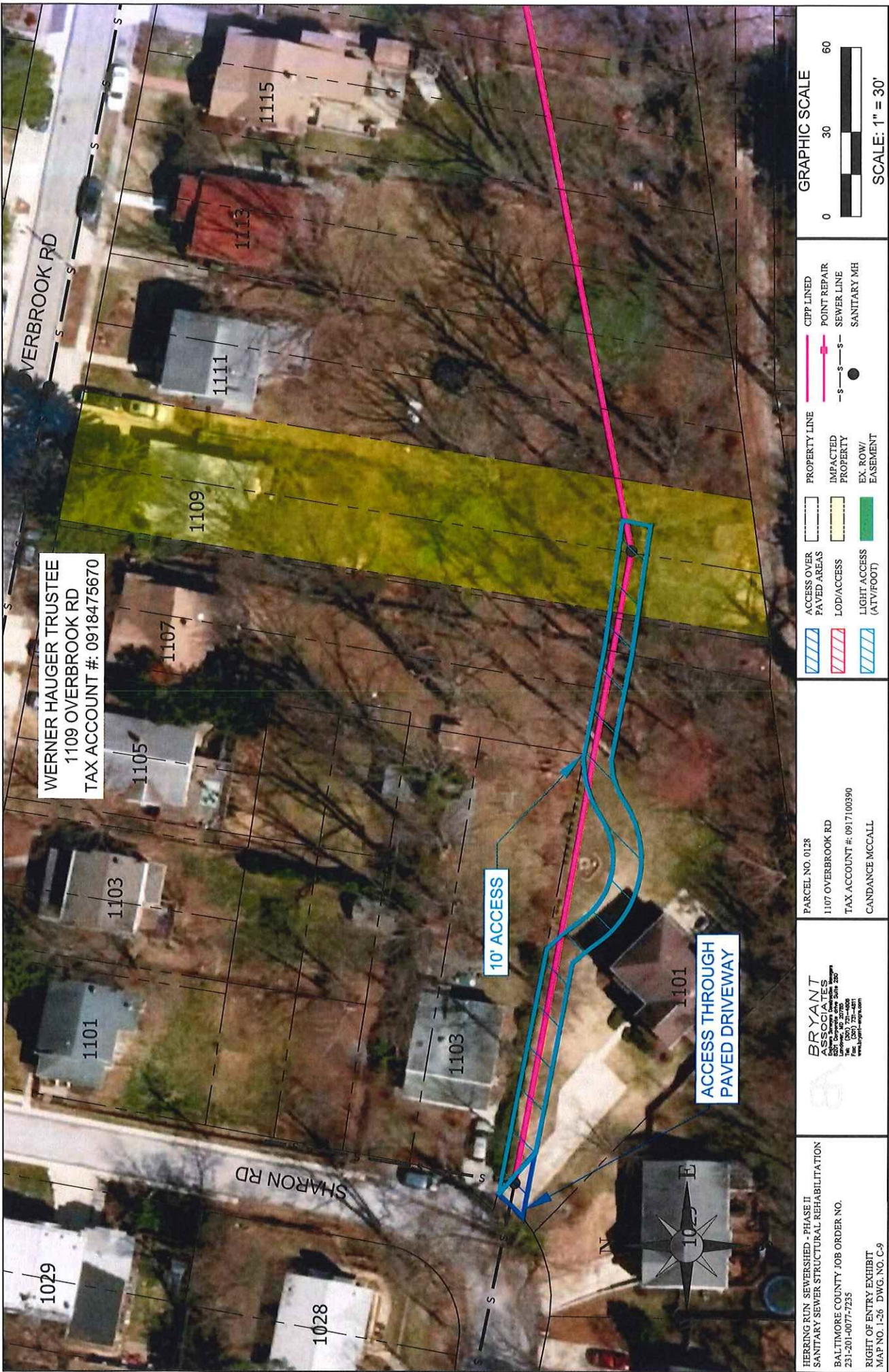
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\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

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Exhibit 'A'



October 16, 2020

Yusuf S. Rowell  
Melissa R. Rowell  
1203 Overbrook Road  
Baltimore, MD 21239-1607

RE: Herring Run Sewershed Structural Rehab  
RW17-030, Item 31, J.O. 201-0077-7235

Dear Property Owners:

Over the past year, several attempts have been made to contact you regarding the future rehabilitation of the Herring Run Sewershed Sanitary Sewers. Baltimore County, MD is under Consent Decree with the Federal Government and the State of Maryland to comply with the Clean Water Act and the Maryland water pollution control laws with the goal of eliminating sanitary sewer overflows.

A Consent Decree was filed on September 21, 2005 under Case 1:05-cv-02028-AMD, requiring the County to inventory, model, inspect and repair the sanitary sewer system. System inspections required by Paragraph 8.C.ii. of the Consent Decree were completed and those inspections identified structural defects in the sewers on or adjacent to your property. The Sanitary Sewer System Consent Decree can be found online at <https://www.baltimorecountymd.gov/Agencies/publicworks/engineering/>

The attached drawing and Right of Entry agreement will allow us to comply with the consent decree. **A response is requested within 15 business days from the date of this letter.** If I do not hear from you, my office will assume that you agree to grant unto the County, its officials, agents, employees, contractors and assigns, permission to enter your property to satisfy the consent decree.

Please contact me at 410-887-3259 at your earliest convenience, or sign and return the enclosed letter of permission. I would be more than happy to discuss the details of this project.

Thank you in advance for your cooperation.

Sincerely,

LaChelle Imwiko  
Real Estate Specialist III  
Real Estate Compliance  
410-887-3259

Enclosure



**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 01<sup>st</sup> day of ~~September~~ 2017, between, Park Crescent Apartments, LLC ("the Property Owner"), owner of record of the property at 6535 Falkirk Road, Tax Account No. 0913208846, fully described in the deed recorded in the Land Records of Baltimore County at Liber 13837, folio 345 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel, and there will be no excavation of the Property; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.
2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.
3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out of the Work, provided said costs, liability, suits, expenses, claims, demands,



and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 21<sup>st</sup> day of September, 2017, for the purposes herein stated.

Witness:

Property Owner:  
Park Crescent Apartments, LLC

*John P. Martonick*

BY: *John P. Martonick* (SEAL)  
Name: JOHN P. MARTONICK  
Title: REGIONAL PROPERTY MANAGER

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:



WITNESS

BY:



Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)



OFFICE OF THE COUNTY ATTORNEY

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Exhibit 'A'





RW 2017-030  
J.O.: 201-0077-7235  
Item: 33(E)  
Election District: 09c04

**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Right of Entry Agreement ("Agreement"), made this 5<sup>TH</sup> day of OCTOBER, 2020, between Calvert Hall College of Baltimore City, Owners of record of the property more fully described in Exhibit A attached hereto and made a part hereof (the "Property") and Baltimore County, Maryland, a body corporate and politic ("County").

WHEREAS, the County desires to enter upon a portion of the Property for the purpose of the installation and repair of public sanitary sewer systems. Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the undersigned Property Owners agree that immediate entry as above described will not adversely affect the interests of the Property Owners, are willing to grant unto the County, its officials, agents, employees, contractors and assigns, permission to immediately enter the upon the Property, and acknowledges that this grant of entry rights shall not be revocable by the Owners, their successors or assigns, or any third-party authorized or purporting to be authorized to act on behalf of the Owners, their successors or assigns.

NOW THEREFORE, for good and valuable consideration stated herein, the receipt and sufficiency of which is hereby acknowledged, the Property Owners do hereby irrevocably grant unto the County, its successors and assigns, contractors, agents, employees and/or licensees, the non-exclusive right to enter upon the Property, for the above-described purposes, effective immediately upon execution by the parties hereto.

IT IS UNDERSTOOD AND AGREED that this IRREVOCABLE RIGHT OF ENTRY AGREEMENT is granted subject to the following conditions except as specified in Exhibit A, as attached hereto, if applicable:

1. **Term** The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of 1 year from the start of construction of the entire project.
2. **Indemnification** In consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time, agrees on behalf of itself, its respective contractors and employees, to indemnify, protect, and hold harmless the undersigned Property Owner, their personal representatives, successors, heirs and assigns,

from and against any and all claims, demands, and actions in respect to any loss, injury or damages caused by or arising out of the actions of the County, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement.

3. **Remedies** In the event of any alleged breach by the County, of the obligations contained herein, including but not limited to activity on, over or against the Property beyond the scope of the aforementioned purposes, the Property Owners, their personal representatives, successors, heirs and assigns shall, provide written notice stating the allegations. Upon receipt of the written notice, the County will have reasonable period to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the County has not satisfactorily responded to the Property Owners within 30 days, the sole remedy hereunder is an action for specific performance.
4. **Notices** In alleging a breach of the agreement by the County, the Property Owners, their personal representatives, successors, heirs or assigns shall notify the County in writing immediately upon discovering the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the County:

Amy L. Hicks Grossi  
Assistant County Attorney  
Head, Real Estate Compliance  
Baltimore County Office Building  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

The parties hereto agree that this Agreement shall be deemed validly executed and delivered by a party if a party executes this Agreement and delivers a copy of the executed Agreement to the other party by facsimile, telefax or telecopier transmittal. In the event a party executes this Agreement by facsimile, or telefax, or telecopier transmittal, the signature of the party shall be witnessed at the time of signing, and the parties further agree that this Agreement may be executed in counterparts, each of which when considered together shall constitute the original Agreement. A facsimile, telefax or telecopier transmittal of a signed acceptance, addendum, amendment or notice relating to this Agreement received by facsimile, telefax or telecopier transmittal shall be deemed the equivalent of the original.

[SIGNATURES APPEAR ON FOLLOWING PAGES]


The undersigned Property Owners join in this IRREVOCABLE RIGHT OF ENTRY AGREEMENT this 5<sup>TH</sup> day of OCTOBER, 2020, for the purpose of granting the aforescribed Irrevocable Right of Entry.

WITNESS:



PROPERTY OWNER:

Calvert Hall College of Baltimore City

 (SEAL)  
Name: BROTHER JOHN KANE

Title PRESIDENT

Address: 8102 LASALLE RD.  
BALTIMORE, MD. 21286

Telephone Number: 410-825-4266

\_\_\_\_\_

\_\_\_\_\_ (SEAL)  
Name:

Title \_\_\_\_\_

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

\_\_\_\_\_

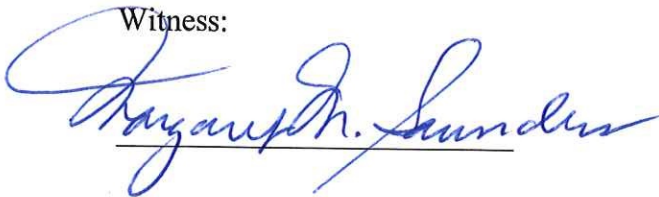
Telephone Number: \_\_\_\_\_

(SIGNATURES CONTINUE ON FOLLOWING PAGE)

APPROVED AND ACCEPTED:


  
Department of Public Works

Witness:



Baltimore County, Maryland

By:

  
Stacy L. Rodgers  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)

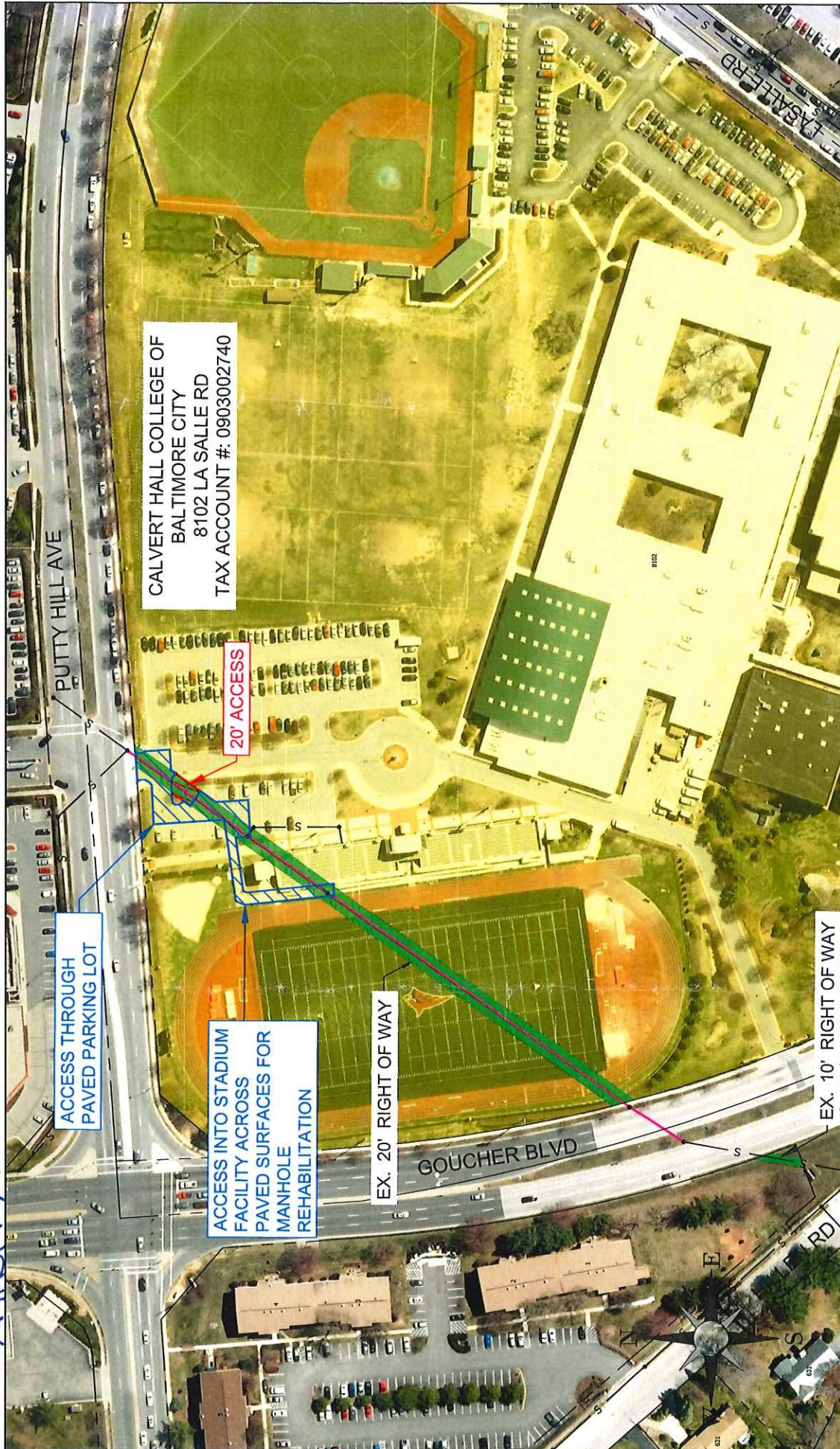


OFFICE OF THE COUNTY ATTORNEY

(\*Approval of Legal Form and Sufficiency Does Not  
Convey Approval Or Disapproval of the Substantive  
Nature of This Transaction. Approval is Based Upon  
Typeset Document-All Modifications Require Re-Approval.)



Exhibit 'A'



CALVERT HALL COLLEGE OF  
BALTIMORE CITY  
8102 LA SALLE RD  
TAX ACCOUNT #: 0903002740

20' ACCESS

ACCESS THROUGH  
PAVED PARKING LOT

ACCESS INTO STADIUM  
FACILITY ACROSS  
PAVED SURFACES FOR  
MANHOLE  
REHABILITATION

EX. 20' RIGHT OF WAY

EX. 10' RIGHT OF WAY

<p>HERRING RUN, SEVERSHED - PHASE II SANITARY SEWER STRUCTURAL REHABILITATION BALTIMORE COUNTY JOB ORDER NO. 231-201-4077-7235 RIGHT OF ENTRY EXHIBIT MAP NO. 1-33 DWG. NO. C-11</p>		<p><b>BRYANT ASSOCIATES</b> 1801 Goucher Blvd, Suite 200 Baltimore, MD 21206 Tel: (410) 731-4000 Fax: (410) 731-4001 www.bryant-assoc.com</p>		<p>PARCEL NO. 0819 8102 LA SALLE RD TAX ACCOUNT #: 0903002740 CALVERT HALL COLLEGE OF BALTIMORE CITY</p>		<p>ACCESS OVER PAVED AREAS LOD/ACCESS LIGHT ACCESS (ATV/FOOT)</p>		<p>PROPERTY LINE IMPACTED PROPERTY EX. ROW/ EASEMENT</p>		<p>CIPP LINED POINT REPAIR SEWER LINE SANITARY MH</p>		<p>GRAPHIC SCALE 0 100 200 SCALE: 1" = 100'</p>	
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## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 11<sup>th</sup> day of February 2018, between, Towson Owner, LLC c/o Hirschfeld Management, Inc. ("the Property Owner"), owner of record of the properties on Colbury Road, also known as TowsonTown Place, Tax Account Nos. 1600002424 & 0916602670 fully described in the deed recorded in the Land Records of Baltimore County at Liber 40678, folio 285 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems (the "Work"). To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown on the Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County completes the Work, whichever is sooner.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County acknowledges that there is no planned excavation as part of the Work. In the event any excavation is required, the County shall submit a plan to the Owner for review and approval in advance

4. The County acknowledges that there is no planned excavation as part of the Work. In the event any excavation is required, the County shall submit a plan to the Owner for review and approval in advance of any excavation, which the Owner will have 3 business days to approve or withhold in its sole and absolute discretion. If excavation is necessary, the County shall use minimally invasive methods for any and all such excavation.

5. The County will make all efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

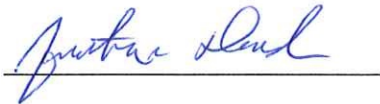
6. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 11 day of February, 2019, for the purposes herein stated.

Witness:

Property Owner: Towson Owner, LLC

By:



BY:  (SEAL)  
Name: Jeffrey A. Hirschfeld  
Title: Authorized Signatory


\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

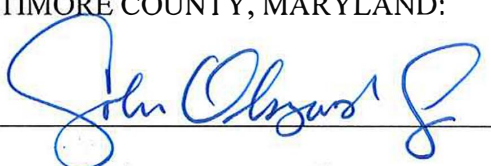
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:  \_\_\_\_\_  
Baltimore County Executive

3/27/2019

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.





HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. I-36 DWG. NO. C-12, C-13

**BRYANT ASSOCIATES**  
Engineers Surveyors Construction Managers  
12404 Old Annapolis Road, Suite 280  
Annapolis, MD 21406  
Tel: (410) 731-4808  
Fax: (410) 731-4811  
www.bryant-engine.com

PARCEL NO. 0947  
6902 LACHLAN CIR  
TAX ACCOUNT #: 0916602670  
TOWSON LL LLC

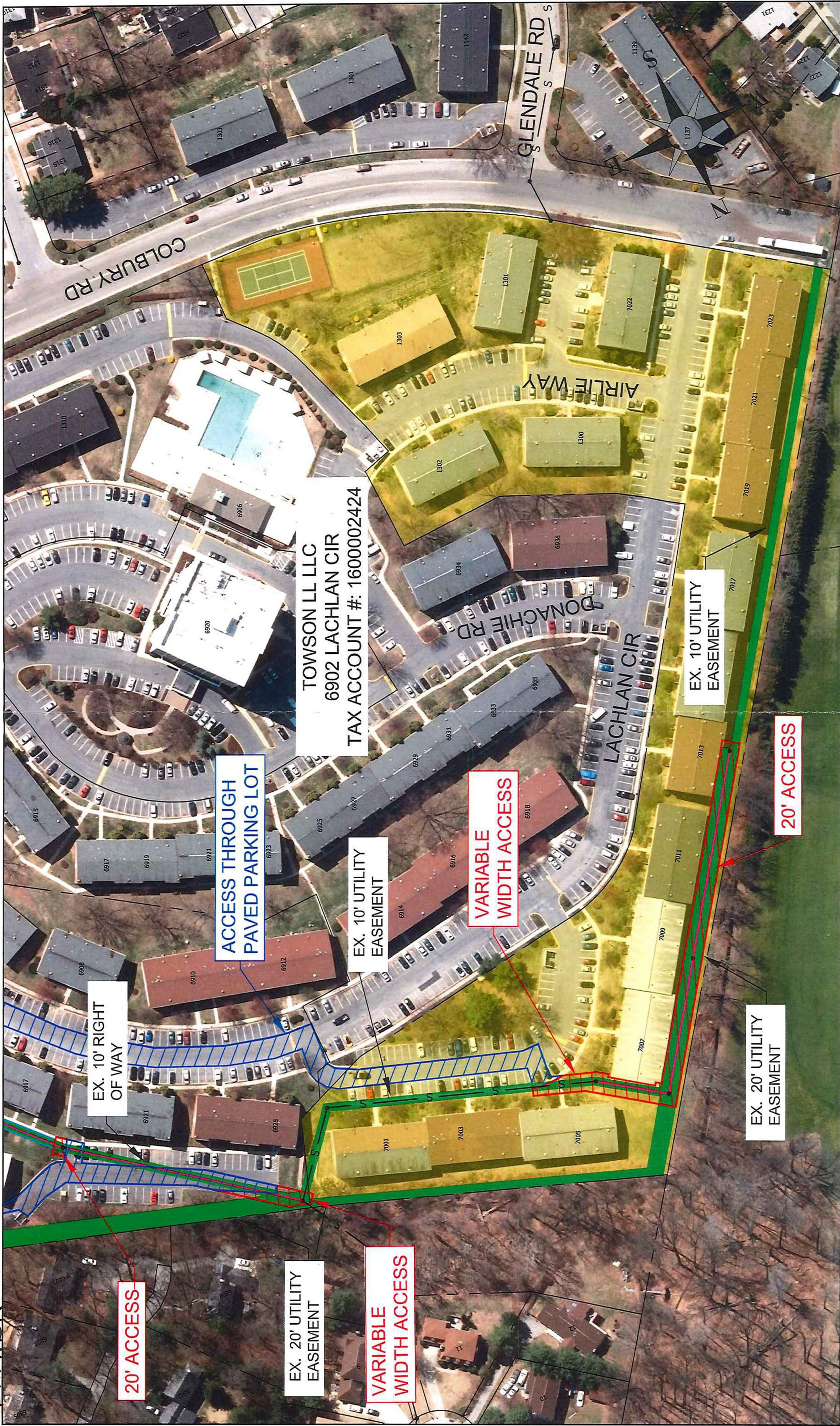
ACCESS OVER PAVED AREAS  
LOD/ACCESS  
LIGHT ACCESS (ATV/FOOT)

PROPERTY LINE  
IMPACTED PROPERTY  
EX. ROW/ EASEMENT

GRAPHIC SCALE  
0 100 200  
SCALE: 1" = 100'



Exhibit 'A'

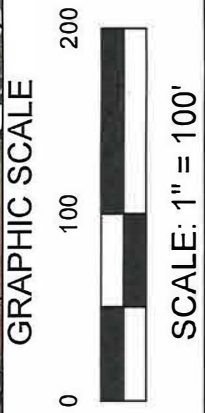


HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. I-34 DWG. NO. C-12

**BRYANT ASSOCIATES**  
Engineers Surveyors Construction Managers  
Landscape Architects  
10000 Old Court, Suite 200  
Lanham, MD 20655  
Tel: (301) 731-4808  
Fax: (301) 731-4811  
www.bryant-engr.com

PARCEL NO. 0965  
6902 LACHLAN CIR  
TAX ACCOUNT #: 1600002424  
TOWSON LL LLC

	ACCESS OVER PAVED AREAS		PROPERTY LINE		CIPP LINED
	LOD/ACCESS		IMPACTED PROPERTY		POINT REPAIR
	LIGHT ACCESS (ATV/FOOT)		EX. ROW/ EASEMENT		SEWER LINE
					SANITARY MH





**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 3<sup>rd</sup> day of May ~~2018~~ <sup>2017</sup>, between, Robert B. Horel and Christine A. Horel ("the Property Owner"), owner of record of the property at 6800 Ridgewood Road, Tax Account No. 1700003684, fully described in the deed recorded in the Land Records of Baltimore County at Liber 28366, folio 293 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 3<sup>rd</sup> day of May, 2017, for the purposes herein stated.  
2018

Witness:

Property Owner:

\_\_\_\_\_

BY: [Signature] (SEAL)  
Name: Robert B. Horel  
Title:

\_\_\_\_\_

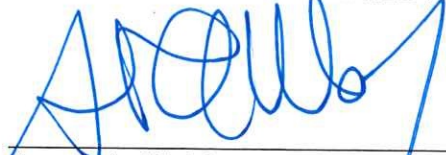
BY: [Signature] (SEAL)  
Name: Christine A. Horel  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:   
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_

OFFICE OF THE COUNTY ATTORNEY

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Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit A





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With

Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 3<sup>RD</sup> day of AUGUST 2017, between, Patricia A. Sullivan, Trustee of the Marjorie K. Blanchard Testamentary Trust ("the Property Owner"), owner of record of the property described as 0.798 acres SW Hillen B, 187 SW Goucher Blvd, Tax Account No. 1900003435, fully described in the deed recorded in the Land Records of Baltimore County at Liber 31440, folio 156 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 3<sup>rd</sup> day of AUGUST, 2017, for the purposes herein stated.

Witness:

Property Owner:

Christine M. Sullivan

Patricia A. Sullivan  
TRUSTEE OF THE  
BY: MARJORIE K. BLANCHARD (SEAL)  
Name: Patricia A. Sullivan TESTAMENTARY TRUST  
Title: Trustee of the Marjorie K. Blanchard  
Testamentary Trust

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

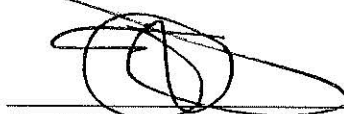


Steven A. Walsh, P.E., Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
WITNESS

BY:



Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

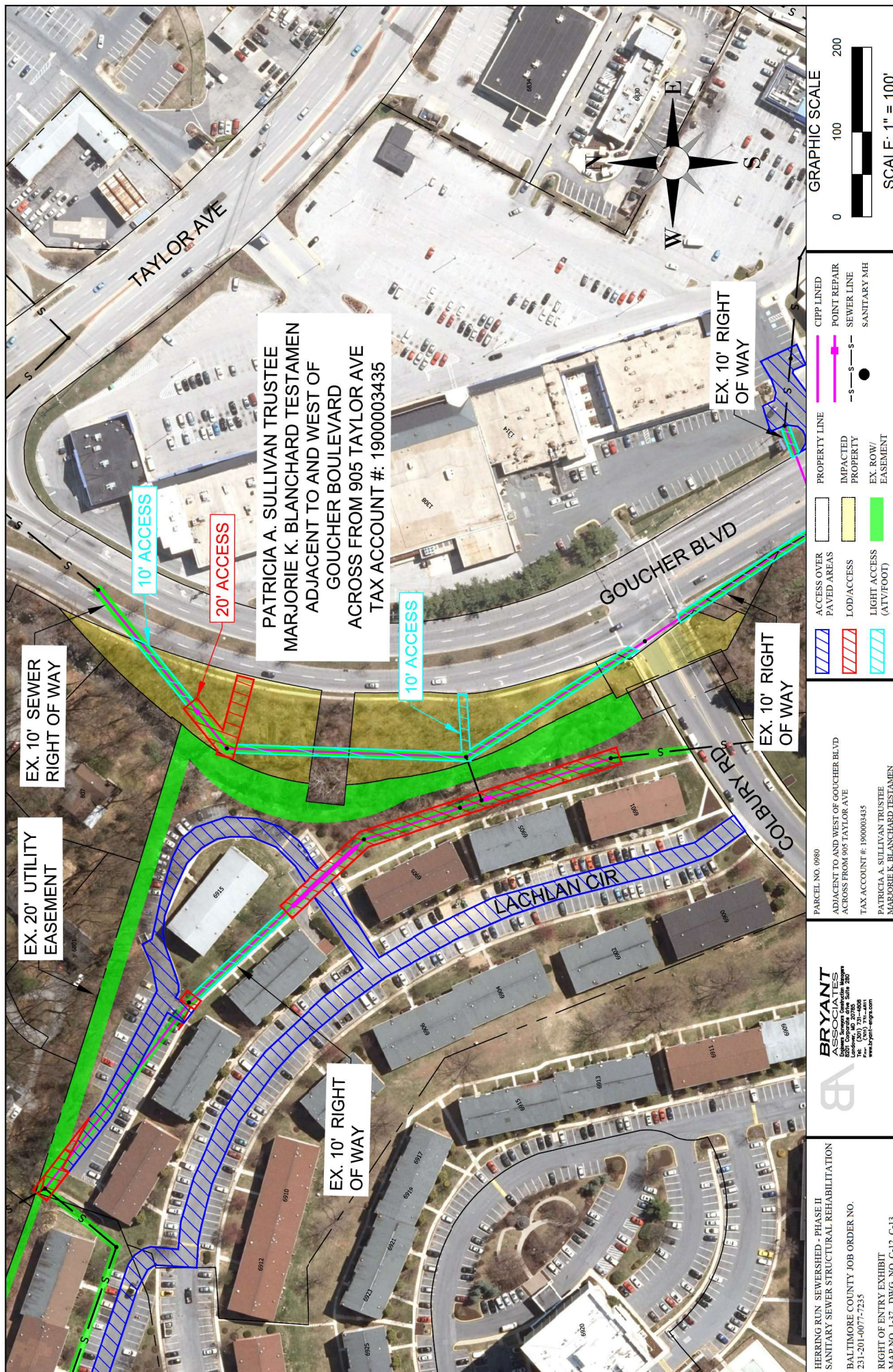
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)



OFFICE OF THE COUNTY ATTORNEY

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Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.







BALTIMORE COUNTY, MARYLAND,  
a body corporate and politic,

*Plaintiff*

vs.

CLAPON, INC.

*Defendant*

IN THE

CIRCUIT COURT

FOR

BALTIMORE COUNTY

CASE No. C-03-CV-22-003572

**JUDGMENT OF CONDEMNATION**

After holding an Inquisition Hearing on November 9, 2023, and having decided that the Plaintiff is entitled to condemn, on this 13<sup>th</sup> day of November, 2023, this Honorable Court, pursuant to Md. Rule 12-209(a), does hereby enter a Judgment of Condemnation for the Plaintiff, Baltimore County, Maryland for the property condemned, and for the Defendant, Clapon, Inc. for just compensation in the amount of \$178.00 (One Hundred Seventy-Eight dollars).

Pursuant to Md. Rule 12-210, at any time after entry of this Judgment of Condemnation, the Plaintiff may obtain possession of the condemned property by paying to the Clerk of the Court for the use of the Defendant the amount awarded. There are no open court costs.

In accordance with Md. Rule 12-208(a), this Honorable Court has signed the Inquisition, which contains a description of the property condemned, the nature of the interest in the property acquired by the Plaintiff, and the amount of damages awarded. Per Md. Rule 12-212(a), upon the entry of this Judgment of Condemnation and the filing of a certification by the Plaintiff that the award has been paid into court, the Clerk shall record the Inquisition among the land records of the County in the same manner in which deeds are recorded.

SO ORDERED.

  
The Honorable Sherrie R. Bailey

Entered: Clerk, Circuit Court for  
Baltimore County, MD  
November 16, 2023





CLAPON INC.  
GREENWAY RESERVATION  
7.465 AC. +/-  
LIBER 1213 FOLIO 424  
PARCEL 0412

2

BALTIMORE COUNTY  
MARYLAND  
LIBER 2143 FOLIO 356  
PARCEL 0012

10' BALTIMORE COUNTY R/W (TYP.)  
DEED 1213/424 PLAT 42/172

TEMPORARY  
CONSTRUCTION  
AREA #2  
4,822 SQ. FT.  
OR 0.111 AC.

L=141.09, R=140.25  
 $\Delta=57^{\circ}38'20''$   
CH.=N43° 07' 56"W  
CH. L=135.22

N49° 42' 44"E  
20.00

N85° 36' 59"W  
25.00  
N4° 23' 01"E  
48.41

S85° 36' 59"E  
25.00

TEMPORARY  
CONSTRUCTION  
AREA #1  
4,696 SQ. FT.  
OR 0.107 AC.

S4° 23' 01"W  
14.21

S4° 23' 01"W  
14.21

N24° 20' 10"W  
103.37

CLAPON INC.  
LOT #1  
2.891 AC. +/-  
LIBER 1213 FOLIO 424  
PARCEL 0412

1

CH.=N4° 02' 54"E  
CH. L=681.10  
 $\Delta=23^{\circ}27'37''$   
L=685.88, R=1675.08

$\Delta=1^{\circ}33'09''$   
L=70.22, R=2591.48

N20° 26' 33"E  
22.13

S17° 39' 50"W  
23.60

N8° 31' 20"E  
21.02

N17° 06' 44"E  
41.57

N61° 42' 26"W  
71.80

S72° 26' 16"E  
47.51

S11° 59' 59"W  
20.15

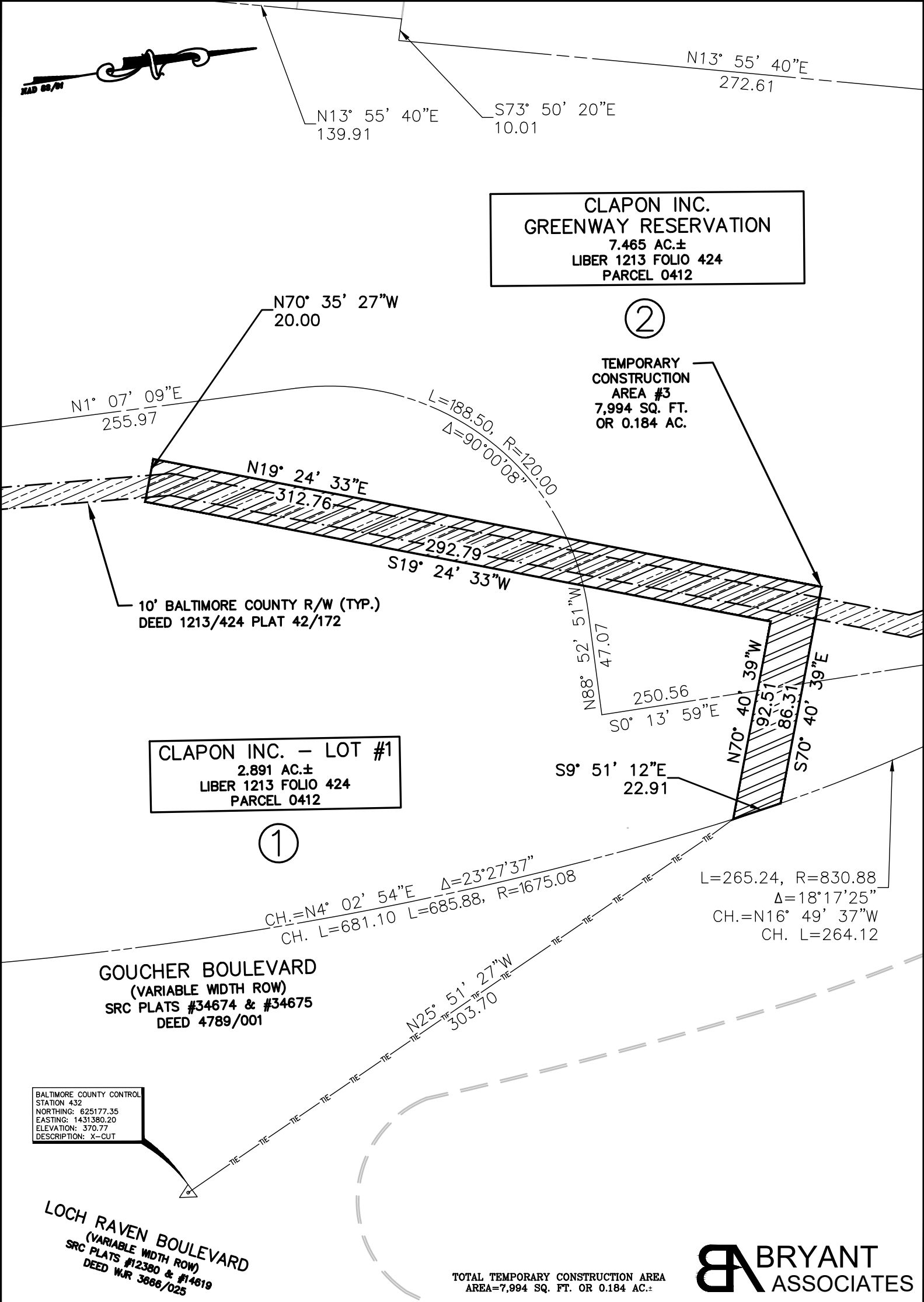
BALTIMORE COUNTY CONTROL  
STATION 432  
NORTHING: 625177.35  
EASTING: 1431380.20  
ELEVATION: 370.77  
DESCRIPTION: X-CUT

GOUCHER BOULEVARD  
(VARIABLE WIDTH ROW)  
SRC PLATS #34674 & #34675  
DEED 4789/001

TOTAL TEMPORARY CONSTRUCTION AREA  
AREA=9,518 SQ. FT. OR 0.218 AC.±



BALTIMORE COUNTY, REAL ESTATE COMPLIANCE									
DISTRICT NO. 9C5,6		POSITION SHEET NO. 31 NE 7,8; 32 NE 7,8				FEDERAL PROJECT NO. N/A			
		CONSTRUCTION PLAN NO.				MARYLAND PROJECT NO. N/A			
APPROVED BY: _____ DIRECTOR OF PUBLIC WORKS				AREA TO BE ACQUIRED				EXISTING COUNTY R/W	
DATE: _____				REVERTABLE SLOPE EASEMENT				TEMPORARY CONSTRUCTION AND ADJUSTMENT AREA	
APPROVED BY: _____ CHIEF, REAL ESTATE COMPLIANCE				TEMPORARY CONSTRUCTION AREA				TEMPORARY SLOPE EASEMENT	
DATE: _____		ITEM NO. RECORDED				DRAWN BY JTM		SCALE 1"=50'	
APPROVED BY: _____ DRAFTING		433				PLAT CHECKED		B.C. JOB ORDER NO. 231-201-0077-7235	
DATE: _____						TITLE CHECKED		RW - -13	



BALTIMORE COUNTY, REAL ESTATE COMPLIANCE									
DISTRICT NO. 9C5,6		POSITION SHEET NO. 31 NE 7,8; 32 NE 7,8				FEDERAL PROJECT NO. N/A			
		CONSTRUCTION PLAN NO.				MARYLAND PROJECT NO. N/A			
APPROVED BY: _____ DIRECTOR OF PUBLIC WORKS		<input type="checkbox"/> AREA TO BE ACQUIRED		<input checked="" type="checkbox"/> EXISTING COUNTY R/W		MARYLAND REGISTERED PROFESSIONAL LAND SURVEYOR			
DATE: _____		<input checked="" type="checkbox"/> REVERTABLE SLOPE EASEMENT		<input checked="" type="checkbox"/> TEMPORARY CONSTRUCTION AND ADJUSTMENT AREA		DATE: _____ EXP: _____			
APPROVED BY: _____ CHIEF, REAL ESTATE COMPLIANCE		<input checked="" type="checkbox"/> TEMPORARY CONSTRUCTION AREA		<input checked="" type="checkbox"/> TEMPORARY SLOPE EASEMENT		SHEET 2 OF 2		REVISIONS	
DATE: _____		ITEM NO.		RECORDED		DRAWN BY JTM		SCALE 1"=50'	
APPROVED BY: _____ DRAFTING						PLAT		B.C. JOB ORDER NO.	
DATE: _____						CHECKED		231-201-0077-7235	
				434		CHECKED		RW - -13	
						TITLE			
						CHECKED			

## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 11<sup>th</sup> day of August 2017, between, Barbara Bankard Quinan ("the Property Owner"), owner of record of the property at 6813 Collinsdale Road, Tax Account No. 0919075150, fully described in the deed recorded in the Land Records of Baltimore County at Liber 31868, folio 200 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.
2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.
3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 11<sup>th</sup> day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:

Lisa Capucci

BY: Barbara B. Quinan (SEAL)  
Name: Barbara Bankard Quinan  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:



WITNESS

BY:



Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

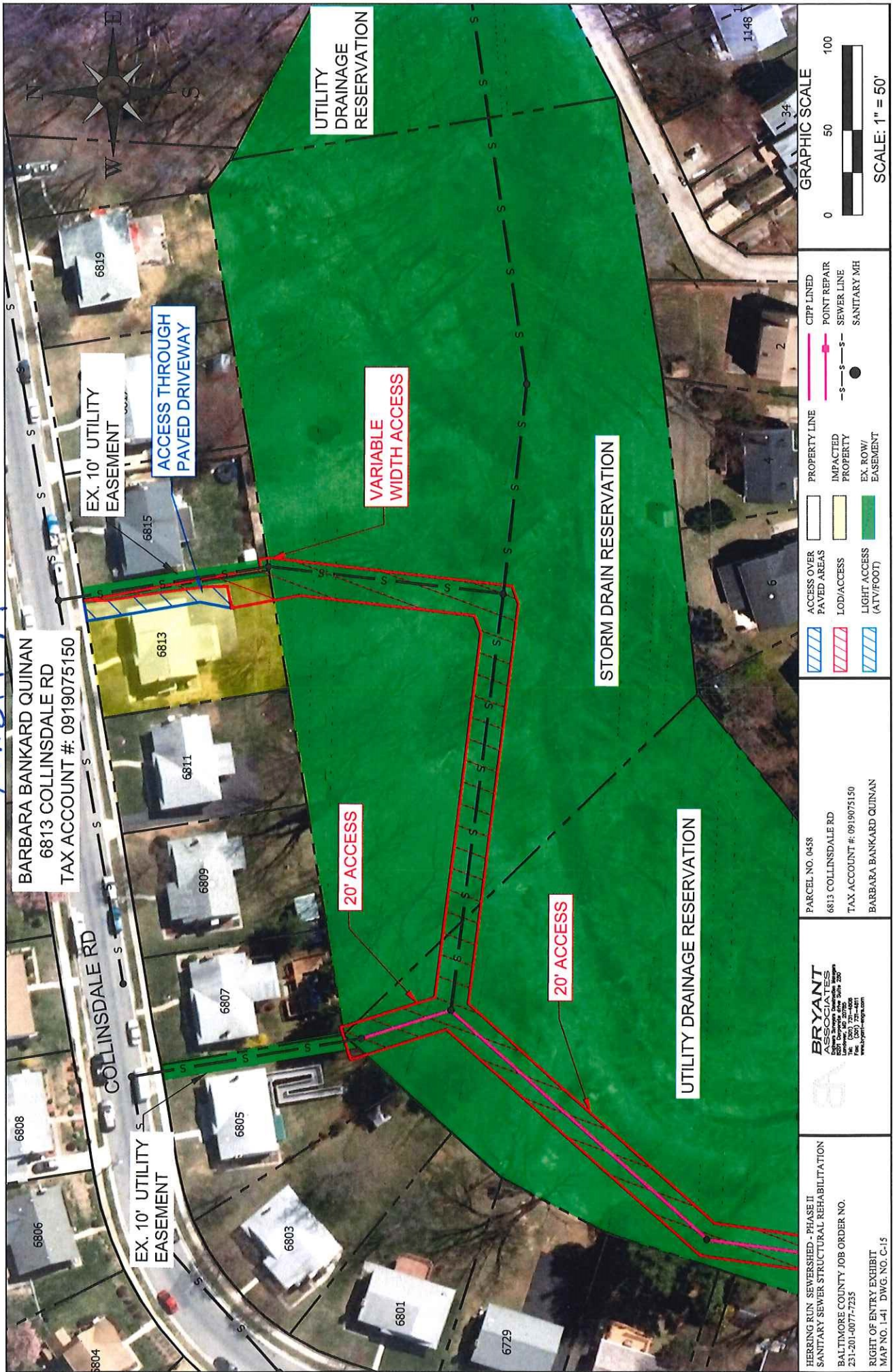


OFFICE OF THE COUNTY ATTORNEY

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Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 16<sup>th</sup> day of August, 2017, between, Thaddeus K. Amegashie and Maureen S. Amegashie ("the Property Owner"), owner of record of the property at 6807 Collinsdale Road, Tax Account No. 0908303250, fully described in the deed recorded in the Land Records of Baltimore County at Liber 16328, folio 461 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out



of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 16<sup>th</sup> day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:

LaCalle

BY: Thaddeus Amegashie (SEAL)  
Name: Thaddeus K. Amegashie  
Title:


LaCalle

BY: Maureen Amegashie (SEAL)  
Name: Maureen S. Amegashie  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

  
\_\_\_\_\_  
BY: Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

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Approval or Disapproval of Substantive Nature of Transaction.  
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THADDEUS K. AMEGASHIE  
 MAUREEN S. AMEGASHIE  
 6807 COLLINSDALE RD  
 TAX ACCOUNT #: 0908303250

6804 6806 6808

6803 6805 6807 6809 6811 6813 6815 6819

COLLINSDALE RD

EX. 10' UTILITY EASEMENT

EX. 10' UTILITY EASEMENT

20' ACCESS

20' ACCESS

20' ACCESS

UTILITY DRAINAGE RESERVATION

STORM DRAIN RESERVATION

UTILITY DRAINAGE RESERVATION

GRAPHIC SCALE













20' ACCESS

20' ACCESS

## STORM DRAIN RESERVATION

## MULTI-STEP DRAINAGE PRESERVATION

	ACCESS OVER PAVED AREAS		PROPERTY LINE		POINT REPAIR		CUT LINE
			IMPACTED PROPERTY				SEWER LINE
			EX. ROW/ EASEMENT				SANITARY MAIN

6807 COLLINSDALE RD  
TAX ACCOUNT #: 0908303250  
THADDEUS K. AMEGASHIE  
MAUREEN S. AMEGASHIE

HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT

SCALE: 1" = 50'



RW 2017-030  
J.O.: 201-0077-7235  
Item: 44(E) ROE  
Election District: 09c04

## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Right of Entry Agreement ("Agreement"), made this 1 day of September, 2017, between St. Andrews Evangelical Lutheran Church, Owners of record of the property more fully described in Exhibit A attached hereto and made a part hereof (the "Property") and Baltimore County, Maryland, a body corporate and politic ("County").

WHEREAS, the County desires to enter upon a portion of the Property for the purpose of the installation and repair of public sanitary sewer systems. Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the undersigned Property Owners agree that immediate entry as above described will not adversely affect the interests of the Property Owners, are willing to grant unto the County, its officials, agents, employees, contractors and assigns, permission to immediately enter the upon the Property, and acknowledges that this grant of entry rights shall not be revocable by the Owners, their successors or assigns, or any third-party authorized or purporting to be authorized to act on behalf of the Owners, their successors or assigns.

NOW THEREFORE, for good and valuable consideration stated herein, the receipt and sufficiency of which is hereby acknowledged, the Property Owners do hereby irrevocably grant unto the County, its successors and assigns, contractors, agents, employees and/or licensees, the non-exclusive right to enter upon the Property, for the above-described purposes, effective immediately upon execution by the parties hereto.

IT IS UNDERSTOOD AND AGREED that this IRREVOCABLE RIGHT OF ENTRY AGREEMENT is granted subject to the following conditions except as specified in Exhibit A, as attached hereto, if applicable:

1. **Term** The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of 1 year from the start of construction of the entire project.
2. **Indemnification** In consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time, agrees on behalf of itself, its respective contractors and employees, to indemnify, protect, and hold harmless the undersigned Property Owner, their personal representatives, successors, heirs and assigns,

from and against any and all claims, demands, and actions in respect to any loss, injury or damages caused by or arising out of the actions of the County, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement.

3. **Remedies** In the event of any alleged breach by the County, of the obligations contained herein, including but not limited to activity on, over or against the Property beyond the scope of the aforementioned purposes, the Property Owners, their personal representatives, successors, heirs and assigns shall, provide written notice stating the allegations. Upon receipt of the written notice, the County will have reasonable period to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the County has not satisfactorily responded to the Property Owners within 30 days, the sole remedy hereunder is an action for specific performance.
4. **Notices** In alleging a breach of the agreement by the County, the Property Owners, their personal representatives, successors, heirs or assigns shall notify the County in writing immediately upon discovering the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the County:

Amy L. Hicks Grossi  
Assistant County Attorney  
Head, Real Estate Compliance  
Baltimore County Office Building  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

The parties hereto agree that this Agreement shall be deemed validly executed and delivered by a party if a party executes this Agreement and delivers a copy of the executed Agreement to the other party by facsimile, telefax or telecopier transmittal. In the event a party executes this Agreement by facsimile, or telefax, or telecopier transmittal, the signature of the party shall be witnessed at the time of signing, and the parties further agree that this Agreement may be executed in counterparts, each of which when considered together shall constitute the original Agreement. A facsimile, telefax or telecopier transmittal of a signed acceptance, addendum, amendment or notice relating to this Agreement received by facsimile, telefax or telecopier transmittal shall be deemed the equivalent of the original.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

The undersigned Property Owners join in this IRREVOCABLE RIGHT OF ENTRY AGREEMENT this 1 day of September, 2019, for the purpose of granting the aforescribed Irrevocable Right of Entry.

WITNESS:

PROPERTY OWNER:

St. Andrews Evangelical Lutheran Church

Jean H. Stoll

Robert W. M. Property chair (SEAL)

Name/Title

Address:

Telephone Number:

6711 Queens Ferry Road  
Baltimore, MD 21239

410-370-7055

Sara A. Muehl

Sara A. Muehl Council President (SEAL)

Name/Title

Address:

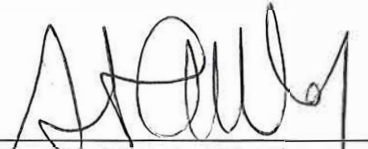
Telephone Number:

1201 Taylor Ave  
Balto MD 21234

410 925-3230

(SIGNATURES CONTINUE ON FOLLOWING PAGE)

APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

Witness:

Baltimore County, Maryland



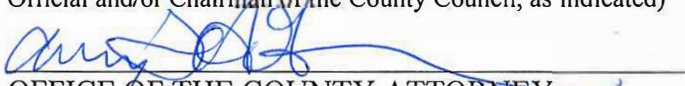
By:



County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)



OFFICE OF THE COUNTY ATTORNEY

(\*Approval of Legal Form and Sufficiency Does Not  
Convey Approval Or Disapproval of the Substantive  
Nature of This Transaction. Approval is Based Upon  
Typeset Document-All Modifications Require Re-Approval.)



Exhibit 'A'

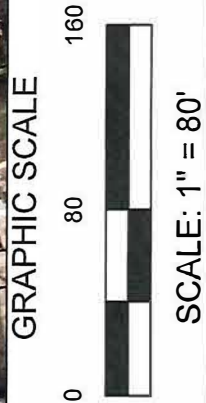


HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-44 DWG. NO. C-16

**BRYANT**  
ASSOCIATES  
8201 Corporate Drive Suite 200  
Lundown, MD 20765  
Tel: (301) 731-4608  
Fax: (301) 731-4611  
www.bryant-eng.com

PARCEL NO. 0605  
1201 TAYLOR AVE  
TAX ACCOUNT #: 1700005600  
ST ANDREWS EVANGELICAL CHURCH

- |  |                            |  |                      |  |              |
|--|----------------------------|--|----------------------|--|--------------|
|  | ACCESS OVER<br>PAVED AREAS |  | PROPERTY LINE        |  | CIPP LINED   |
|  | LOD/ACCESS                 |  | IMPACTED<br>PROPERTY |  | POINT REPAIR |
|  | LIGHT ACCESS<br>(ATV/FOOT) |  | EX. ROW/<br>EASEMENT |  | SEWER LINE   |
|  |                            |  |                      |  | SANITARY MH  |





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 2<sup>nd</sup> day of August 2017, between, Anthony A. Bush, Sr. and Sharon D. Bush ("the Property Owner"), owner of record of the property at 1102 Pelham Wood Road, Tax Account No. 0915100240, fully described in the deed recorded in the Land Records of Baltimore County at Liber 15026, folio 520 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.


5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 2<sup>nd</sup> day of August, 2017, for the purposes herein stated.


Witness:

Property Owner:



BY:  (SEAL)  
Name: Anthony A. Bush, Sr.  
Title:

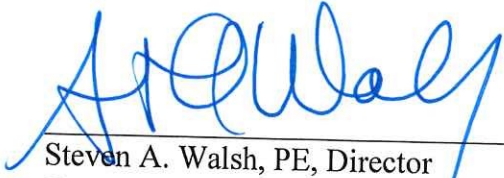


BY:  (SEAL)  
Name: Sharon D. Bush  
Title:

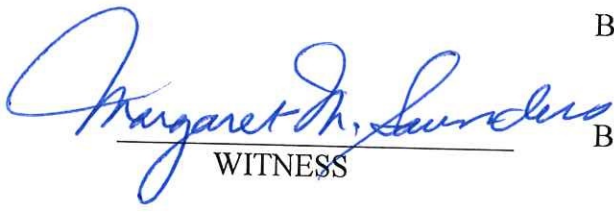
\_\_\_\_\_

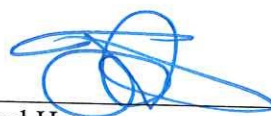
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:  8/23/17  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

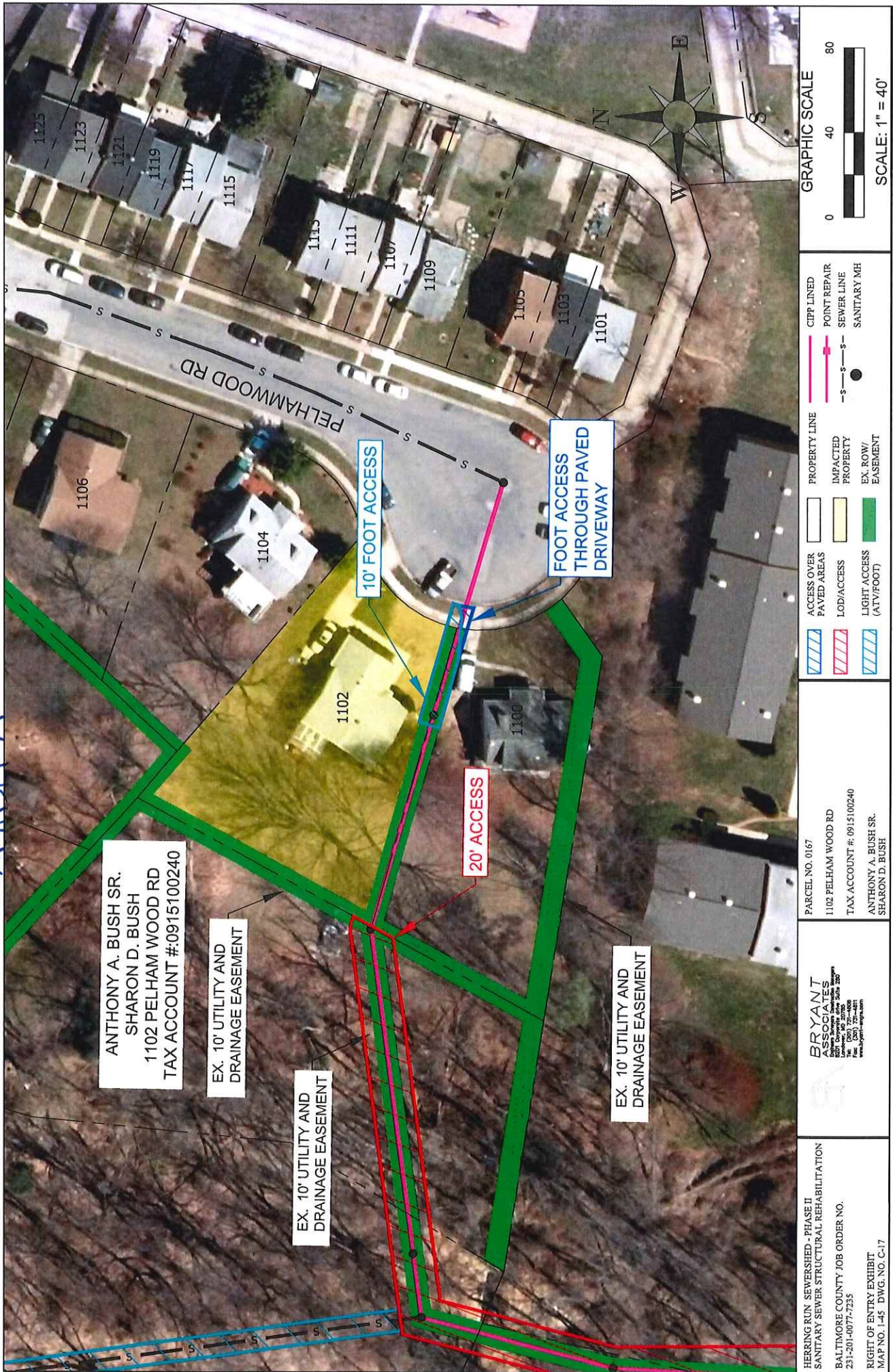
APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





RW 2017-030  
J.O.: 201-0077-7235  
Item: 46(E) ROE  
Election District: c4

**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Right of Entry Agreement ("Agreement"), made this 5<sup>th</sup> day of February, 2019, between George W. Lipscomb and Andria Yevette Lipscomb, Owners of record of the property more fully described in Exhibit A attached hereto and made a part hereof (the "Property") and Baltimore County, Maryland, a body corporate and politic ("County").

WHEREAS, the County desires to enter upon a portion of the Property for the purpose of the installation and repair of public sanitary sewer systems. Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the undersigned Property Owners agree that immediate entry as above described will not adversely affect the interests of the Property Owners, are willing to grant unto the County, its officials, agents, employees, contractors and assigns, permission to immediately enter the upon the Property, and acknowledges that this grant of entry rights shall not be revocable by the Owners, their successors or assigns, or any third-party authorized or purporting to be authorized to act on behalf of the Owners, their successors or assigns.

NOW THEREFORE, for good and valuable consideration stated herein, the receipt and sufficiency of which is hereby acknowledged, the Property Owners do hereby irrevocably grant unto the County, its successors and assigns, contractors, agents, employees and/or licensees, the non-exclusive right to enter upon the Property, for the above-described purposes, effective immediately upon execution by the parties hereto.

IT IS UNDERSTOOD AND AGREED that this IRREVOCABLE RIGHT OF ENTRY AGREEMENT is granted subject to the following conditions except as specified in Exhibit A, as attached hereto, if applicable:

1. **Term** The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of 1 years from the start of construction of the entire project.
2. **Indemnification** In consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time, agrees on behalf of itself, its respective contractors and employees, to indemnify, protect, and hold harmless the undersigned Property Owners, their personal representatives, successors, heirs and assigns,



from and against any and all claims, demands, and actions in respect to any loss, injury or damages caused by or arising out of the actions of the County, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement.

3. **Remedies** In the event of any alleged breach by the County, of the obligations contained herein, including but not limited to activity on, over or against the Property beyond the scope of the aforementioned purposes, the Property Owners, their personal representatives, successors, heirs and assigns shall, provide written notice stating the allegations. Upon receipt of the written notice, the County will have reasonable period to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the County has not satisfactorily responded to the Property Owner within 30 days, the sole remedy hereunder is an action for specific performance.
4. **Notices** In alleging a breach of the agreement by the County, the Property Owners, their personal representatives, successors, heirs or assigns shall notify the County in writing immediately upon discovering the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the County:

Amy L. Hicks Grossi  
Assistant County Attorney  
Head, Real Estate Compliance  
Baltimore County Office Building  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

The parties hereto agree that this Agreement shall be deemed validly executed and delivered by a party if a party executes this Agreement and delivers a copy of the executed Agreement to the other party by facsimile, telefax or telecopier transmittal. In the event a party executes this Agreement by facsimile, or telefax, or telecopier transmittal, the signature of the party shall be witnessed at the time of signing, and the parties further agree that this Agreement may be executed in counterparts, each of which when considered together shall constitute the original Agreement. A facsimile, telefax or telecopier transmittal of a signed acceptance, addendum, amendment or notice relating to this Agreement received by facsimile, telefax or telecopier transmittal shall be deemed the equivalent of the original.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

The undersigned Property Owners join in this IRREVOCABLE RIGHT OF ENTRY AGREEMENT this 16 day of February, 2019, for the purpose of granting the  
aforedescribed Irrevocable Right of Entry.

WITNESS:

PROPERTY OWNER:

\_\_\_\_\_

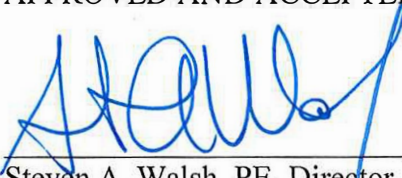
George W. Lipscomb (SEAL)  
George W. Lipscomb  
Address: 1100 Pelham wood rd  
Parkville 21234  
Telephone Number: 443-760-2976

\_\_\_\_\_

\_\_\_\_\_ (SEAL)  
Andria Yevette Lipscomb  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_

(SIGNATURES CONTINUE ON FOLLOWING PAGE)

APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

Witness:

Baltimore County, Maryland



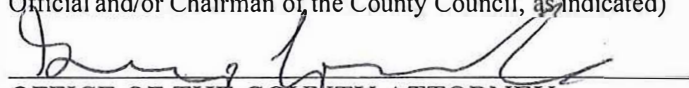
By:



Stacy L. Rodgers  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)

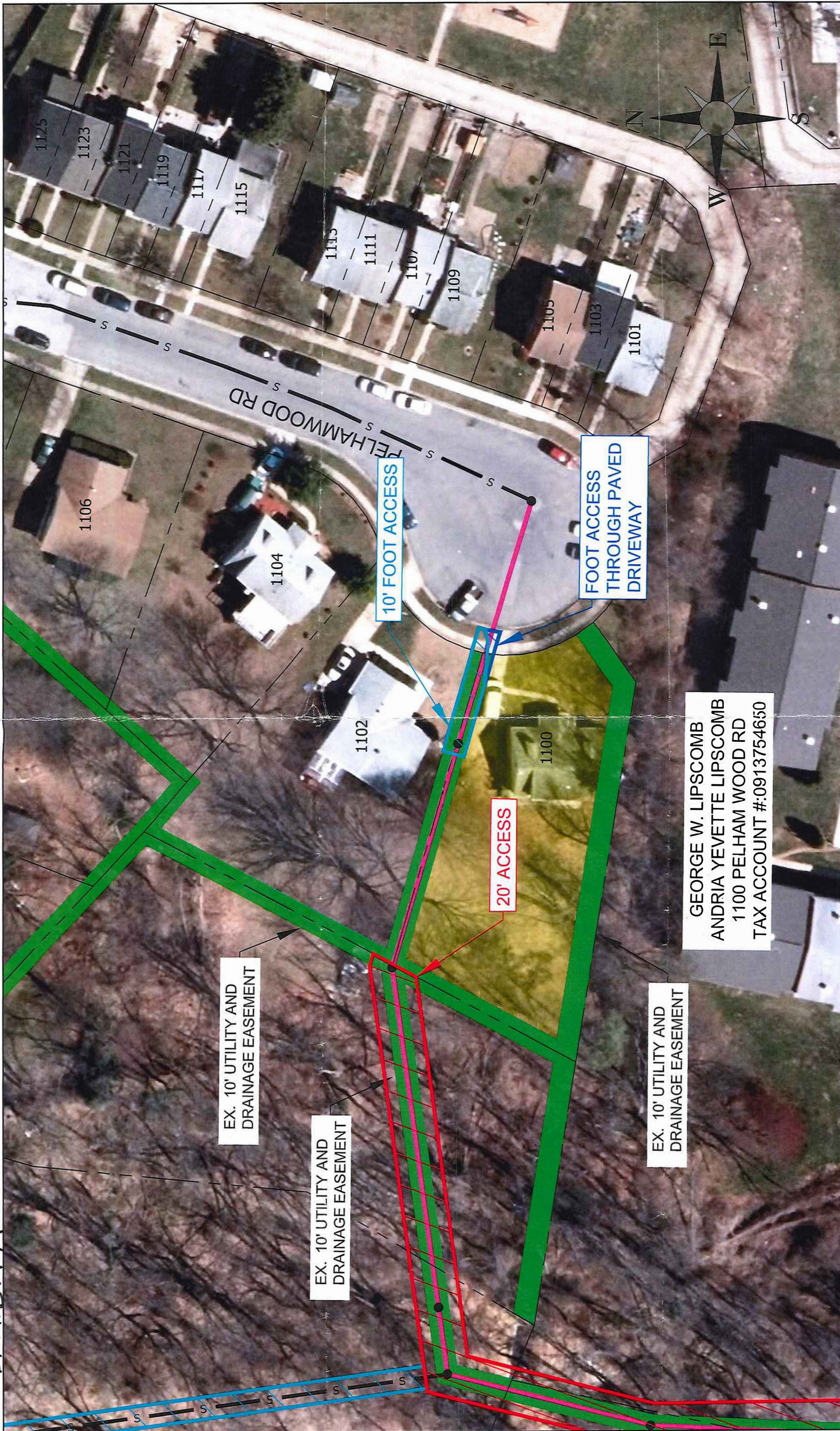


OFFICE OF THE COUNTY ATTORNEY

(\*Approval of Legal Form and Sufficiency Does Not  
Convey Approval Or Disapproval of the Substantive  
Nature of This Transaction. Approval is Based Upon  
Typeset Document-All Modifications Require Re-Approval.)



Exhibit 'A'



GEORGE W. LIPSCOMB  
ANDRIA YEVETTE LIPSCOMB  
1100 PELHAM WOOD RD  
TAX ACCOUNT #:0913754650

HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-46 DWG. NO. C-17

**BRYANT ASSOCIATES**  
Engineers, Surveyors, Architects, Planners  
1100 Pelham Wood Rd, Suite 200  
Londonderry, MD 20785  
Tel: (301) 731-4808  
Fax: (301) 731-4811  
www.bryant-engine.com

PARCEL NO. 0167  
1100 PELHAM WOOD RD  
TAX ACCOUNT #: 0913754650  
GEORGE W. LIPSCOMB  
ANDRIA YEVETTE LIPSCOMB

- |  |                         |  |                   |  |              |
|--|-------------------------|--|-------------------|--|--------------|
|  | ACCESS OVER PAVED AREAS |  | PROPERTY LINE     |  | CIPP LINED   |
|  | LOD/ACCESS              |  | IMPACTED PROPERTY |  | POINT REPAIR |
|  | LIGHT ACCESS (ATV/FOOT) |  | EX. ROW/ EASEMENT |  | SEWER LINE   |
|  |                         |  |                   |  | SANITARY MH  |

GRAPHIC SCALE  
0 40 80  
SCALE: 1" = 40'



## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 19<sup>th</sup> day of July 2018, between, Apex Ground Properties, LLC ("the Property Owner"), owner of record of the property at 97 Ashlar Hill Court, Tax Account No. 2200000630, fully described in the deed recorded in the Land Records of Baltimore County at Liber 36547, folio 342 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the property owner holds title subject to the power of attorney by Ashlar Hill Condominium (the Council) as established in a Declaration recorded in the Land Records of Baltimore County at Liber 8038, folio 559, specifically in Section 6.1.1 (a) which authorizes (the Council) to grant rights of way to governmental authority.

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and

assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 19<sup>th</sup> day of July, 2018, for the purposes herein stated.

Witness:

Property Owner:  
Apex Ground Properties, LLC  
Ashlar Hill Condominium, Attorney-in-Fact

C. Green

BY: Carolyn Cundiff (SEAL)  
Name: Carolyn Cundiff  
Title: Vice President, Ashlar Hill Board

\_\_\_\_\_

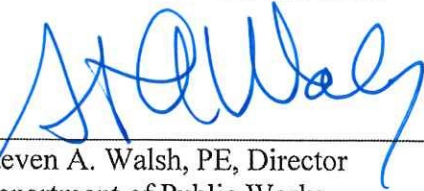
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_


BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:




APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

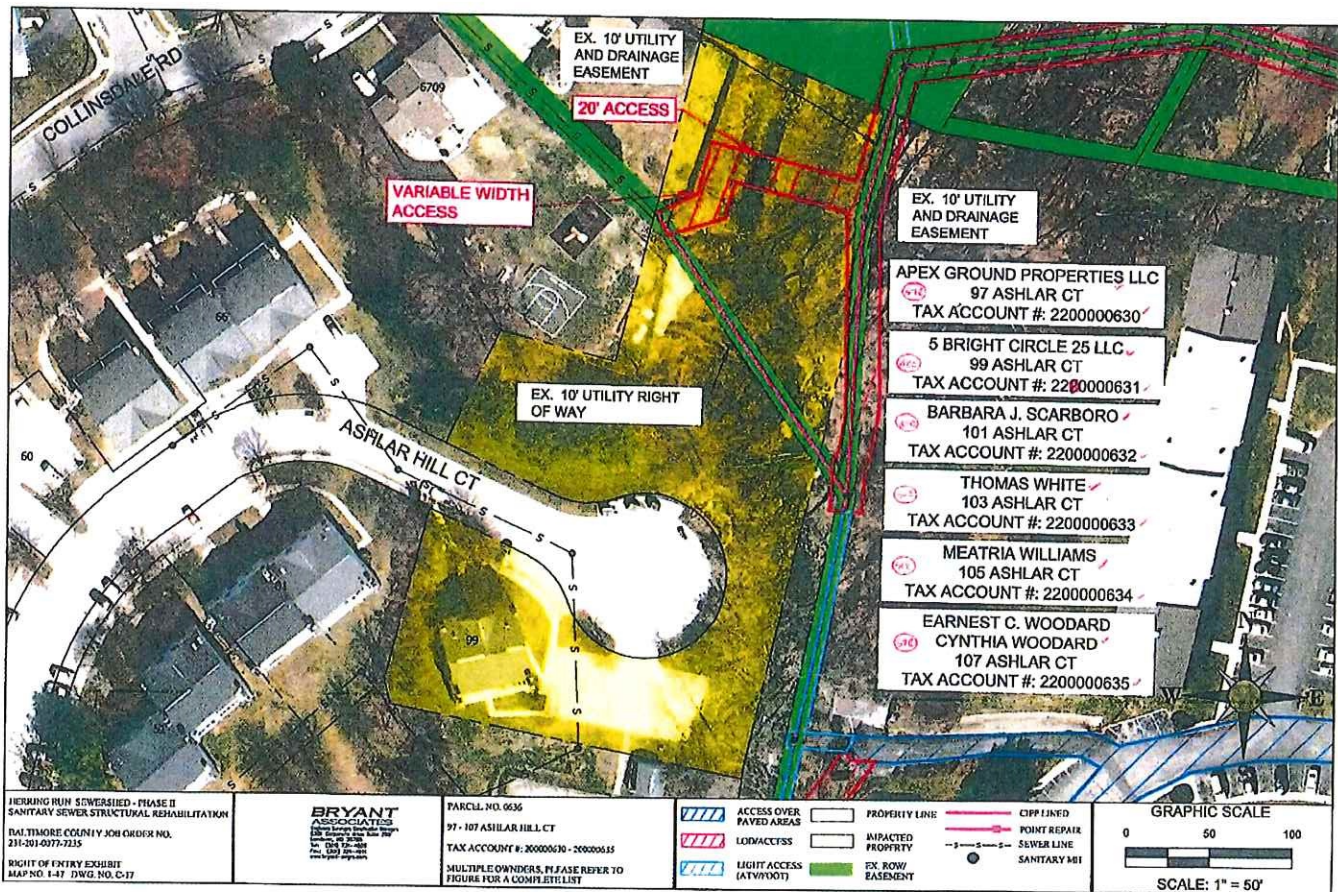
BY:   
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.

IT47 Ex.A.



(IT's): 47 Jun 52

EX.A



## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 24th day of September 2018, between, Towson Crossing Apartments Owner LLC ("the Property Owner"), owner of record of the property at 34 Dowling Circle, Tax Account No. 0913207790, fully described in the deed recorded in the Land Records of Baltimore County at Liber 36253, folio 186 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

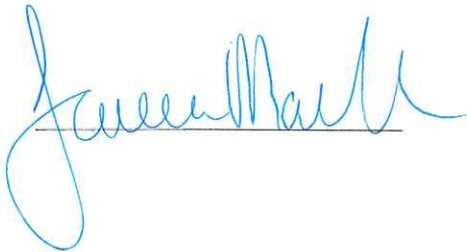
4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 24th day of September, 2018, for the purposes herein stated.

Witness:

Property Owner:  
Towson Crossing Apartments Owner LLC



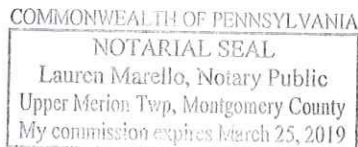
BY: Andrew F. Gravina (SEAL)  
Name: Andrew F. Gravina for Morgan Properties Management  
Title: Company, LLC, Agent for Towson Crossing Apartments  
Owner, LLC

\_\_\_\_\_


BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



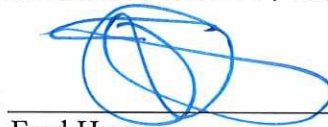
APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:

  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

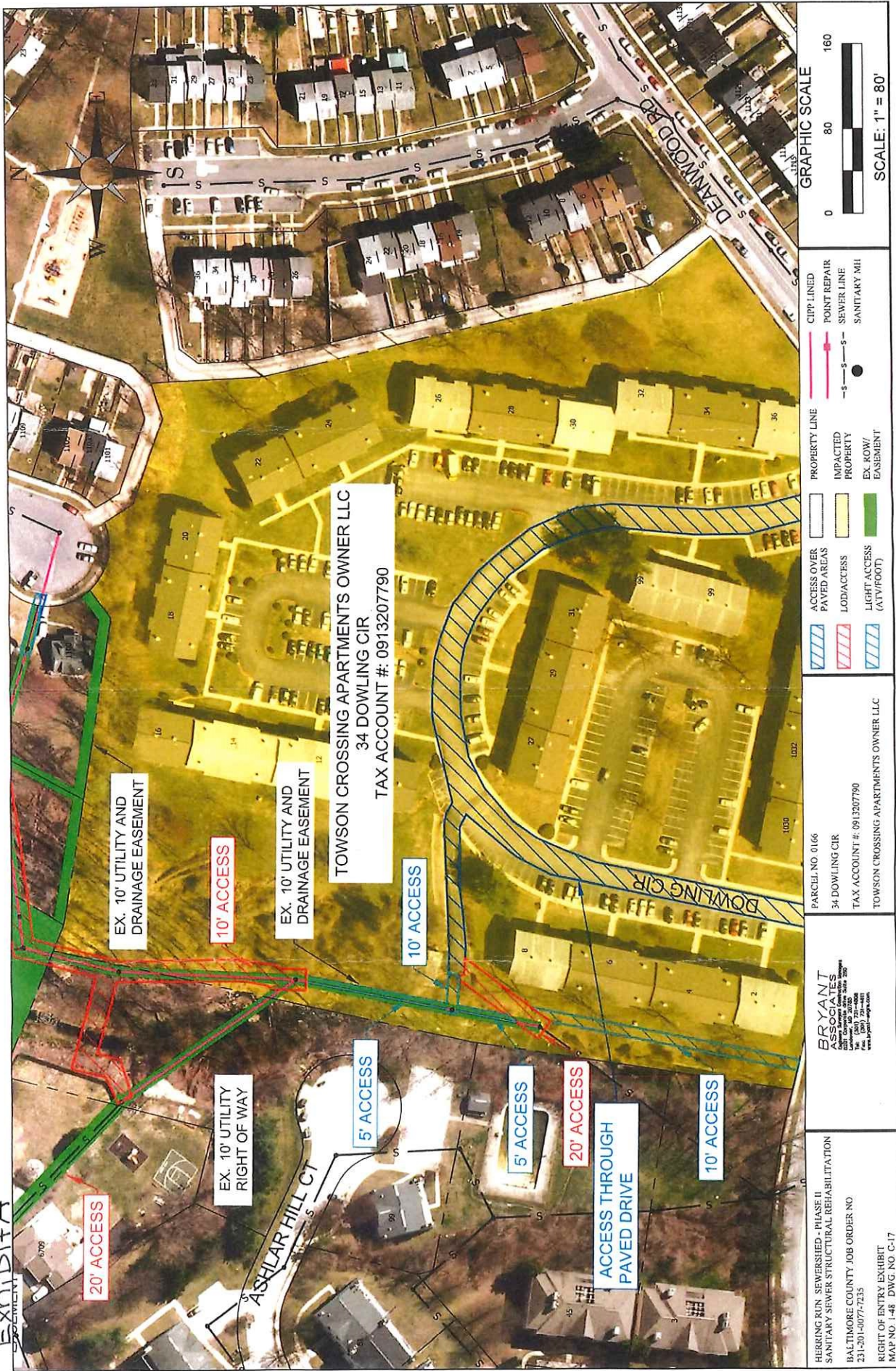
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit A





**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 14<sup>th</sup> day of October 2018, between, MIG 5 LLC ("the Property Owner"), owner of record of the property at 6637 Loch Raven Blvd, Tax Account No. 0926000330, fully described in the deed recorded in the Land Records of Baltimore County at Liber 39222, folio 215 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 14<sup>th</sup> day of October, 2018, for the purposes herein stated.

Witness:

Property Owner: MIG 5 LLC

\_\_\_\_\_

BY: Kevin O. Ryan (SEAL)  
Name:  
Title: manager

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
WITNESS

BY:



Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

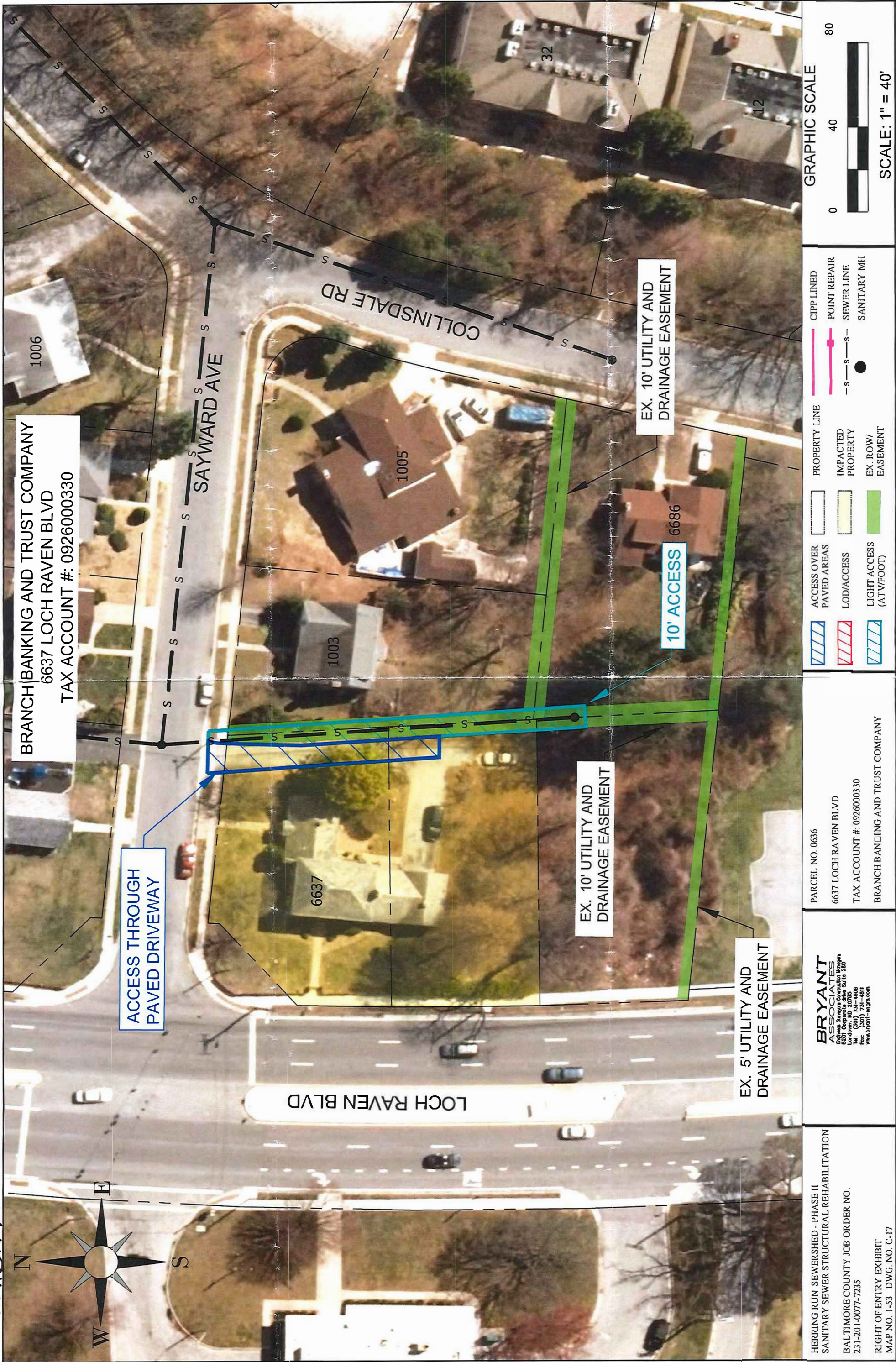
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)



OFFICE OF THE COUNTY ATTORNEY

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HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-53 DWG. NO. C-17

**BRYANT ASSOCIATES**  
Engineers Surveyors Construction Managers  
8201 Corporate Drive Suite 200  
Cockeysville, MD 21030  
Tel: (410) 731-4800  
Fax: (410) 731-4811  
www.bryant-engineers.com

PARCEL NO. 0636  
6637 LOCH RAVEN BLVD  
TAX ACCOUNT #: 0926000330  
BRANCH BANKING AND TRUST COMPANY



**RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Right of Entry Agreement ("Agreement"), made this 8th day of September, 2020, between Tall Oaks Apartments, LLLP ("Property Owner"), owner of record of the property more fully described in Exhibit A attached hereto and made a part hereof (the "Property") and Baltimore County, Maryland, a body corporate and politic ("County").

WHEREAS, the County desires to enter upon a portion of the Property for the purpose of performing repairs to one or more sanitary sewer manholes located on the Property; and

WHEREAS, the undersigned Property Owner agrees that immediate entry as above described and in accordance with the terms of this Agreement will not materially adversely affect the interests of the Property Owner, and, provided that the County complies with its obligations under this Agreement, Property Owner (i) is willing to grant unto the County, its officials, agents, employees, contractors and assigns, permission to immediately enter the upon the Property, and (ii) acknowledges that this grant of entry rights shall not be revocable by the Property Owner, its successors or assigns, or any third-party authorized or purporting to be authorized to act on behalf of the Property Owner, its successors or assigns.

NOW THEREFORE, for good and valuable consideration stated herein, the receipt and sufficiency of which are hereby acknowledged, the Property Owner does hereby grant unto the County, its successors and assigns, contractors, agents, employees and/or licensees, the non-exclusive right to enter upon the Property, for the above-described purposes, effective immediately upon execution by the parties hereto.

IT IS UNDERSTOOD AND AGREED that this RIGHT OF ENTRY AGREEMENT is granted in accordance with and subject to the following conditions:

1. **Term** The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of 1 year from the start of construction of the entire project described above.
2. **Performance of Work** The County will access the manholes only through the access areas shown on Exhibit A. The County shall not cut, disturb or remove any paved surfaces or dig any trenches in connection with the project. The County shall give the Property Owner at least two (2) days prior notice before entering upon the Property and/or performing any work on the manholes. The County will not store any equipment on the Property.
3. **Indemnification** In consideration for the rights of entry set forth in this Agreement, the County (i) agrees that it will promptly restore any disturbed areas of the Property, and (ii)

subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time, agrees on behalf of itself, its respective contractors and employees, to indemnify, protect, and hold harmless the undersigned Property Owner, its personal representatives, successors, heirs and assigns, from and against any and all claims, demands, and actions in respect to any loss, injury or damages caused by or arising out of the actions of the County, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement.

4. **Remedies** In the event of any alleged breach by the County of the obligations contained herein, including but not limited to activity on, over or against the Property beyond the scope of the aforementioned purposes, the Property Owner, its personal representatives, successors, heirs and assigns shall provide written notice stating the allegations. Upon receipt of the written notice, the County will have a reasonable period, not to exceed thirty (30) days, to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the County has not satisfactorily responded to the Property Owner within 30 days, the Property Owner shall be entitled to all remedies at law and in equity.
5. **Notices** In alleging a breach of this Agreement by the County, the Property Owner, its personal representatives, successors, heirs or assigns shall notify the County in writing within a reasonable period of time following the discovery of the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the County:

Amy L. Hicks Grossi  
Assistant County Attorney  
Head, Real Estate Compliance  
Baltimore County Office Building  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

6. **Counterparts; Electronic Signatures** The parties hereto agree that this Agreement shall be deemed validly executed and delivered by a party if a party executes this Agreement and delivers a copy of the executed Agreement to the other party by facsimile, telefax or telecopier transmittal. In the event a party executes this Agreement by facsimile, or telefax, or telecopier transmittal, the signature of the party shall be witnessed at the time of signing, and the parties further agree that this Agreement may be executed in counterparts, each of which when considered together shall constitute the original Agreement. A facsimile, telefax or telecopier transmittal of a signed acceptance, addendum, amendment or notice relating to this Agreement received by facsimile, telefax or telecopier transmittal shall be deemed the equivalent of the original.



The undersigned Property Owner joins in this RIGHT OF ENTRY AGREEMENT this 8th day of September, 2020, for the purpose of granting the aforescribed Right of Entry.

WITNESS:

PROPERTY OWNER:  
Tall Oaks Apartments, LLLP

By: Hendersen-Webb, Inc., its general partner

[Signature]

By: [Signature] (SEAL)

Name: Pamela F. Newland

Title: Senior Vice President

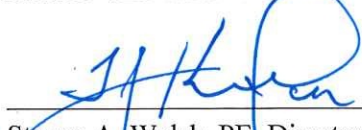
Address: 1025 Cranbrook Road

Cockeysville, MD 21030

Telephone Number: 410-628-7400

(SIGNATURES CONTINUE ON FOLLOWING PAGE)

APPROVED AND ACCEPTED:

  
for Steven A. Walsh, PE, Director  
Department of Public Works


Witness:

Baltimore County, Maryland

  
Margaret M. Saunders

By:   
Stacy L. Rodgers  
County Administrative Officer

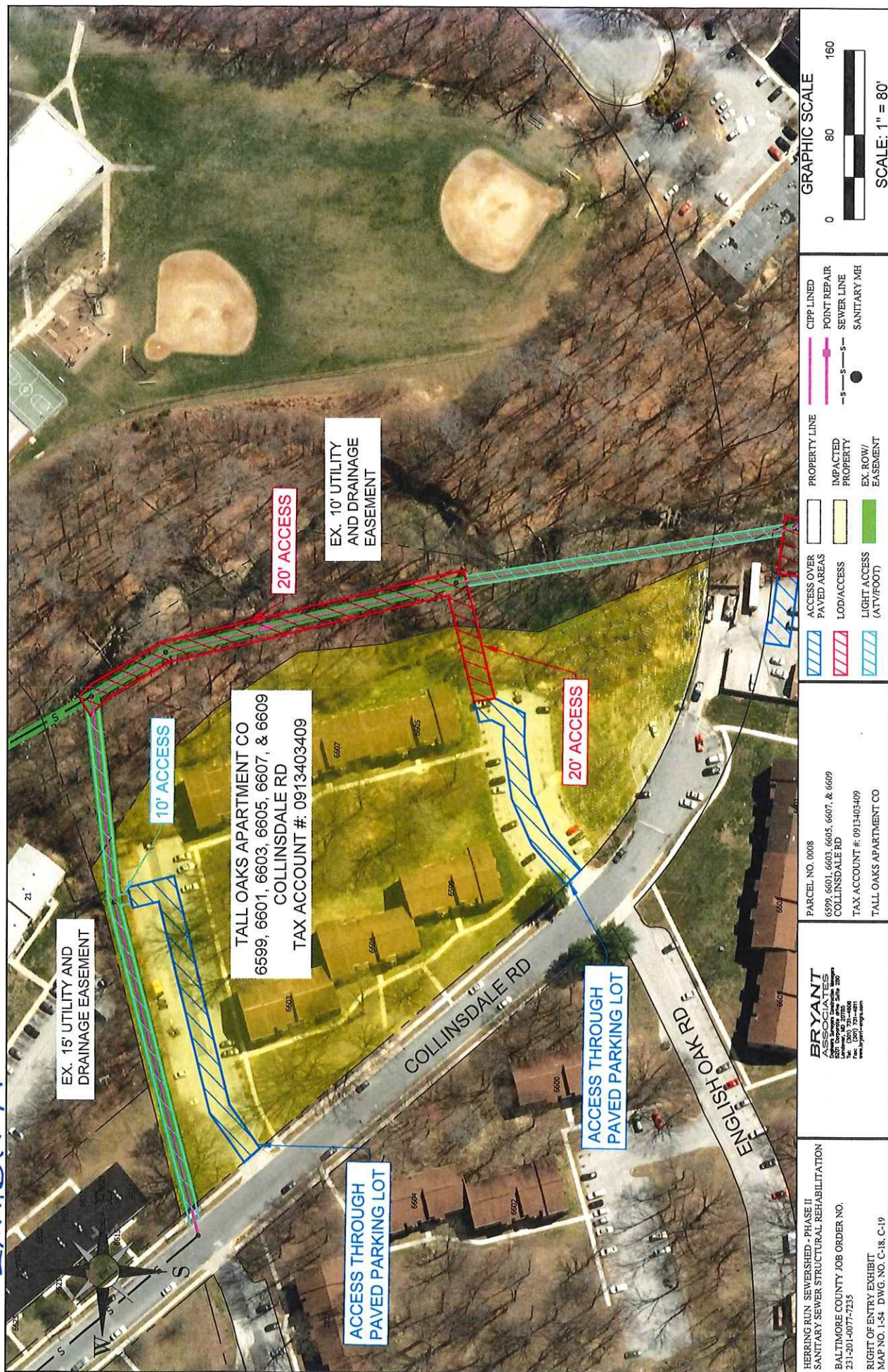
APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)

  
\_\_\_\_\_

OFFICE OF THE COUNTY ATTORNEY  
(\*Approval of Legal Form and Sufficiency Does Not  
Convey Approval Or Disapproval of the Substantive  
Nature of This Transaction. Approval is Based Upon  
Typeset Document-All Modifications Require Re-Approval.)



Exhibit 'A'





LR - Government  
 Instrument 0.00  
 Agency Name: BALTIMORE  
 COUNTY MARYLAND  
 Instrument List:  
 Agreement / Easement  
 Describe Other:  
 Ref:  
 Total: 0.00  
 08/19/2019 01:05  
 #12587790 CC03-NR  
 Baltimore  
 County/CC03.01.16 -  
 Register 16

RW 2014-091 -13,-14  
 J.O. 201-0077-7155  
 Items 15(A) and (B) **DUE**  
 Election District 09c06

### DEED OF EASEMENT AND AGREEMENT

THIS DEED OF EASEMENT AND AGREEMENT is made this 15<sup>th</sup> day of August, 2019, by and between TALL OAKS APARTMENTS, LLLP, a Maryland limited liability limited partnership, as successor-in-interest to Tall Oaks Apartment Company, as Grantor, and BALTIMORE COUNTY, MARYLAND, a body corporate and politic, as Grantee.

WHEREAS, the Grantee desires to access, construct and maintain sewers, drains, water pipes, and other municipal utilities and services in, on, through, and across the land hereinafter described, and the Grantor is willing to grant such right.

NOW, THEREFORE, in consideration of the premises and the sum of Seven Thousand One Hundred Ninety-Four and 82/100 Dollars (\$7,194.82), the receipt and sufficiency of which is hereby acknowledged, the said Grantor hereby grants and conveys unto Baltimore County, Maryland, a body corporate and politic, its successors and assigns, an easement in, on, through, and across the land of the Grantor, situate in Baltimore County, State of Maryland, to lay, construct, and maintain sewers, drains, water pipes, other municipal utilities and services, and for other governmental purposes, said sewers, drains, water pipes, other municipal utilities and services, and other governmental purposes to be in, on, through and across the easement area which is described as follows:

BEING a drainage and utility easement of irregular dimensions across the property of the Grantor, containing 303 sq. ft. (0.007 acre), more or less, as shown and indicated as "(15A) DRAINAGE & UTILITY EASEMENT AREA" on Drawing No. RW 14-091-13, which is attached hereto and made a part hereof as Exhibit A.

TOGETHER with a temporary easement for construction purposes over the property of the Grantor, containing 2,934 sq. ft. (0.067 acre), more or less, as shown and indicated as "(15A) TEMPORARY CONSTRUCTION AREA" on Drawing No. RW 14-091-13. All rights in said temporary easement hereby granted to Baltimore County, Maryland, shall, upon completion of construction of the entire project, terminate and revert to the Grantor.

BEING ALSO a drainage and utility easement of irregular dimensions across the property of the Grantor, containing 1,201 sq. ft. (0.028 acre), more or less, as shown and indicated as "(15B) DRAINAGE & UTILITY EASEMENT AREA" on Drawing No. RW 14-091-14, which is attached hereto and made a part hereof as Exhibit B.

out of the actions of the Grantee, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement;

4. In the event of any alleged breach by the Grantee of the obligations contained in this Agreement, including but not limited to activity on, over or against the easement areas conflicting with or beyond the scope of the aforementioned purposes, the Grantor, its successors and assigns, shall provide written notice stating the allegations. Upon receipt of the written notice, the Grantee will have a reasonable period, not exceeding thirty (30) days, to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the Grantee has not satisfactorily responded to the Grantor within thirty (30) days, the Grantor shall be entitled to all remedies at law and in equity; and
5. In alleging a breach of this Agreement by the Grantee, the Grantor, its successors or assigns, shall notify the Grantee in writing within a reasonable period of time following the discovery of the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the Grantee:

Amy L. Hicks Grossi  
Chief, Real Estate Compliance and Assistant County Attorney  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

*(Signatures appear on the following pages)*

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)

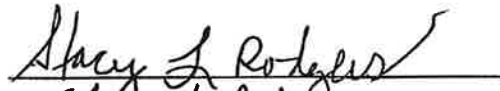
  
OFFICE OF THE COUNTY ATTORNEY

(\*Approval of Legal Form and Sufficiency Does Not Convey Approval  
Or Disapproval of the Substantive Nature of This Transaction. Approval  
is Based Upon Typeset Document-All Modifications Require Re-Approval.)

WITNESS:

BALTIMORE COUNTY, MARYLAND

  
Margaret M. Saunders

  
Stacy L. Rodgers  
County Administrative Officer

This is to certify that the within instrument was prepared by an attorney admitted to  
practice before the Court of Appeals of Maryland.

  
Benjamin B. Fortkamp

Tax ID # 0913403409

INDEXED  
DATE: 8-13-2019





LR - Government 0.00  
 Instrument  
 Agency Name: Rea?  
 Estate Compliance  
 Instrument List:  
 Agreement / Easement  
 Describe Other:  
 Northbrooke Limited  
 Liability LP  
 Ref:  
 Total: 0.00  
 05/31/2019 02:18  
 #12214163/CC0301 -  
 Baltimore  
 County/CC03.01.04 -  
 Register 04

RW: 2014-016-18, -19  
 J.O.: 201-0077-7103  
 Item: 25 (JLE)  
 Election District: 09c06

THIS DEED OF EASEMENT AND AGREEMENT is made this 26<sup>th</sup> day of April, 2019, by and between NORTHBROOKE LIMITED LIABILITY LIMITED PARTNERSHIP, a Maryland limited liability limited partnership, as Grantor, and BALTIMORE COUNTY, MARYLAND, a body corporate and politic, as Grantee.

WHEREAS, the Grantee desires to access and maintain sewers, drains, water pipes, and other municipal utilities and services in, on, through, and across the land hereinafter described, and the Grantor is willing to grant such right.

NOW, THEREFORE, in consideration of the premises and the sum of Eighteen Thousand Five Hundred Ten and 00/100 DOLLARS (\$18,510.00), the receipt and sufficiency of which is hereby acknowledged, the said Grantor hereby grants and conveys unto Baltimore County, Maryland, a body corporate and politic, its successors and assigns, an easement in, on, through, and across the land of the Grantor, situate in Baltimore County, State of Maryland to lay, construct, and maintain sewers, drains, water pipes, other municipal utilities and services, and for other governmental purposes, said sewers, drains, water pipes, other municipal utilities and services, and other governmental purposes to be in, on, through and across the easement area which is described as follows:

BEING two (2) drainage and utility easements of irregular dimensions across the property of the Grantor, containing a TOTAL DRAINAGE AND UTILITY EASEMENT of 0.841 acre (36,653 sq. ft.), more or less, consisting of "DRAINAGE AND UTILITY EASEMENT - AREA 'A,'" which is 36,562 sq. ft. (0.839 acre), more or less, and "DRAINAGE AND UTILITY EASEMENT - AREA 'B,'" which is 91 sq. ft. (0.002 acre), more or less, as shown and indicated on Drawing Nos. RW 2014-016-18 and -19, which are attached hereto and made a part hereof.

Situate in the Ninth Election and Sixth Councilmanic Districts of Baltimore County, Maryland.

Being a portion of the property which was granted to the Grantor herein by a Deed dated October 20, 2005 and recorded among the Land Records of Baltimore County at Liber 22817, folio 339, from NORTHBROOKE LIMITED LIABILITY LIMITED PARTNERSHIP f/k/a NORTHBROOKE LIMITED PARTNERSHIP, a limited partnership of the State of Maryland, unto the Grantor herein.

**APPROVED FOR LEGAL FORM AND SUFFICIENCY\***

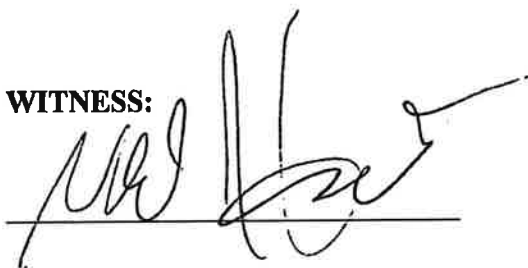
(Subject to Execution by the Duly Authorized Administrative Official and/or Chairman of the County Council, as indicated)




OFFICE OF THE COUNTY ATTORNEY 

(\*Approval of Legal Form and Sufficiency Does Not Convey Approval Or Disapproval of the Substantive Nature of This Transaction. Approval is Based Upon Typeset Document-All Modifications Require Re-Approval.)

**WITNESS:**



**BALTIMORE COUNTY, MARYLAND**

BY:   
Stacy L. Rodgers  
County Administrative Officer

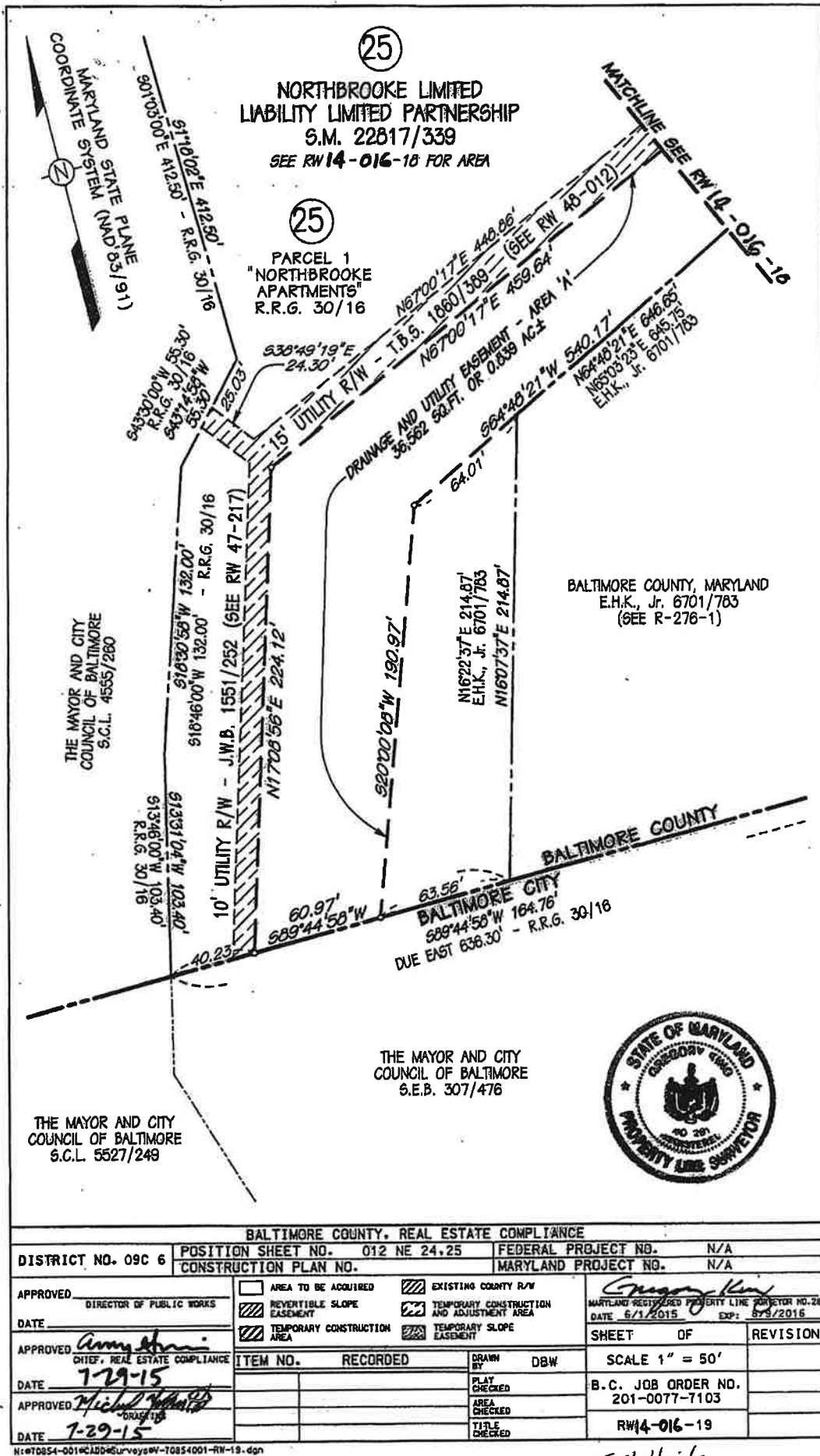
This is to certify that the within instrument was prepared by an attorney admitted to practice before the Court of Appeals of Maryland.

  
Benjamin B. Fortkamp

Tax ID No. 0911570447

**INDEXED**  
**DATE:** 5-28-2019

BALTIMORE COUNTY CIRCUIT COURT (Land Records) JLE 41475, p. 0075, MSA\_CE62\_41332. Date available 06/05/2019. Printed 07/12/2019.



## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 4th day of AUGUST 2017, between, Mark-Hall & Company ("the Property Owner"), owner of record of the property at 1803 Cobourg Court, Tax Account No. 0915000680, fully described in the deed recorded in the Land Records of Baltimore County at Liber 6281, folio 068 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 4<sup>th</sup> day of AUGUST, 2017, for the purposes herein stated.

Witness:

Property Owner:  
Mark-Hall & Company

Beta Branning

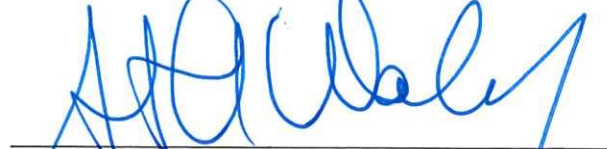
BY: [Signature] (SEAL)  
Name: KEVIN McDONAGH  
Title: MEMBER, MARK-HALL & COMPANY

\_\_\_\_\_  
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_  
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:



WITNESS



8/23/17  
BY: Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

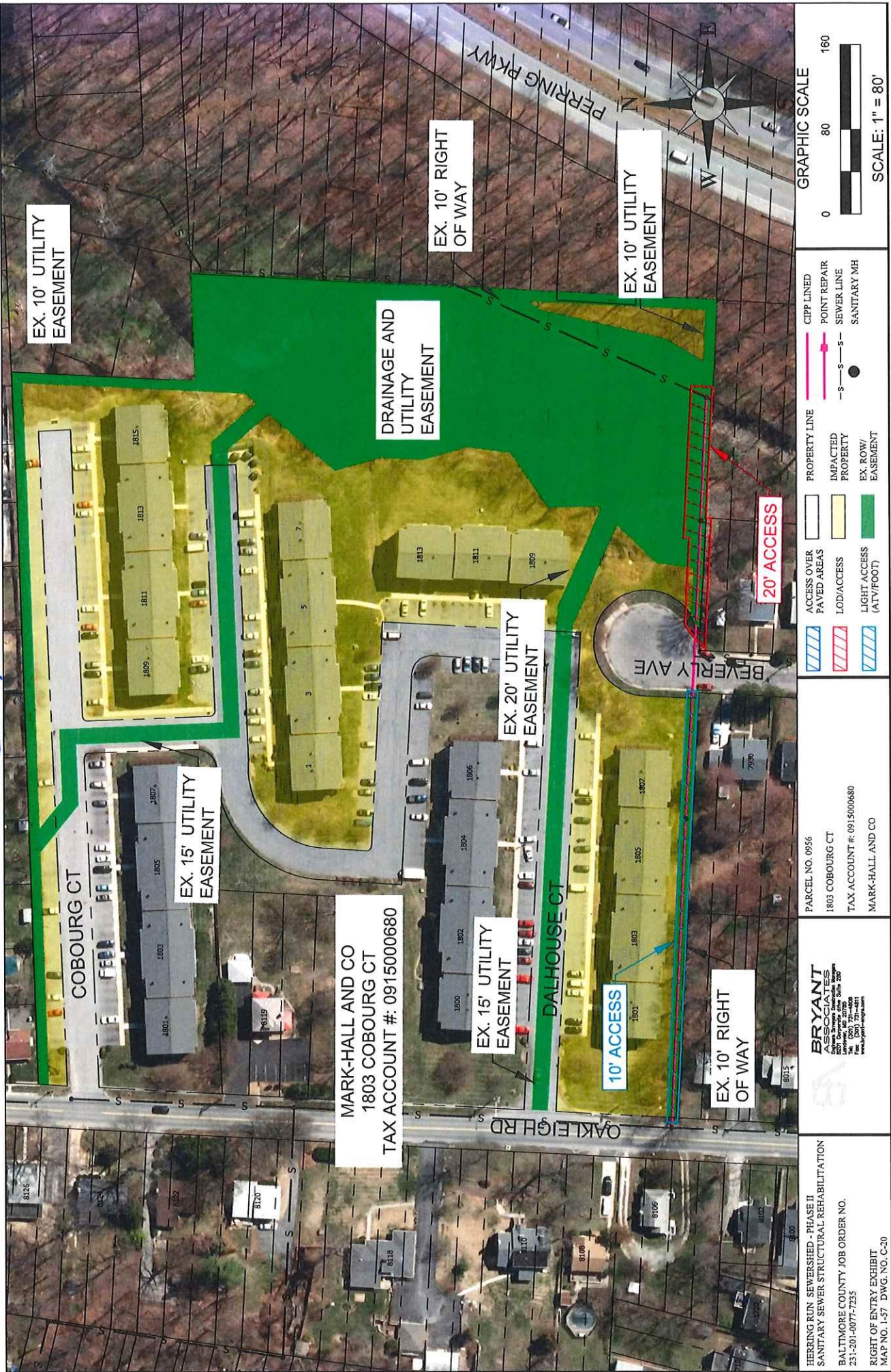


OFFICE OF THE COUNTY ATTORNEY

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Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 10 day of August 2017, between, Paul Graves and Timothy Hata ("the Property Owner"), owner of record of the property at 7817 Oakleigh Road, Tax Account No. 2500004261, fully described in the deed recorded in the Land Records of Baltimore County at Liber 16031, folio 410 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 10<sup>th</sup> day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:

LaCulotta

BY: Paul W. Graves (SEAL)  
Name: Paul Graves  
Title:

LaCulotta

BY: Timothy J. Hata (SEAL)  
Name: Timothy Hata  
Title:

LaCulotta

BY: Sam K. Hata (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:



\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
WITNESS

BY: \_\_\_\_\_



Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)



OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 2nd day of August 2017, between, Charles E. Lewis and Roberta T. Lewis ("the Property Owner"), owner of record of the property at 7815 Oakleigh Road, Tax Account No. 0920661970, fully described in the deed recorded in the Land Records of Baltimore County at Liber 9529, folio 445 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 2nd day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:

Leather M. Lewis

BY: Charles E. Lewis Sr. (SEAL)  
Name: Charles E. Lewis  
Title: OWNER


Leather M. Lewis

BY: Roberta T. Lewis (SEAL)  
Name: Roberta T. Lewis  
Title: owner

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:

  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

8/23/17

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this August day of 11th 2017, between, Anthony A. Saka ("the Property Owner"), owner of record of the property at 7810 Beverly Hill Avenue, Tax Account No. 2100008919, fully described in the deed recorded in the Land Records of Baltimore County at Liber 27513, folio 293 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.


5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 11<sup>th</sup> day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:



BY:  (SEAL)  
Name: Anthony A. Saka  
Title:

\_\_\_\_\_

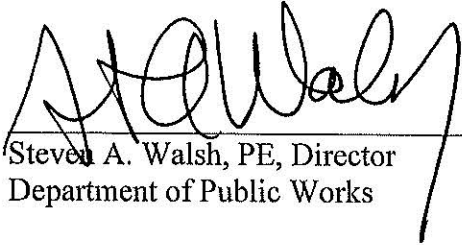
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

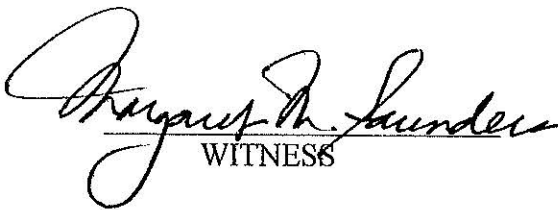
BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:




APPROVED AND ACCEPTED:

  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

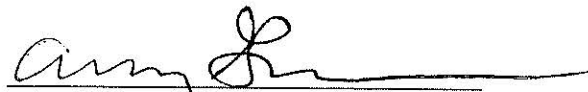
  
WITNESS

BY:

  
Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

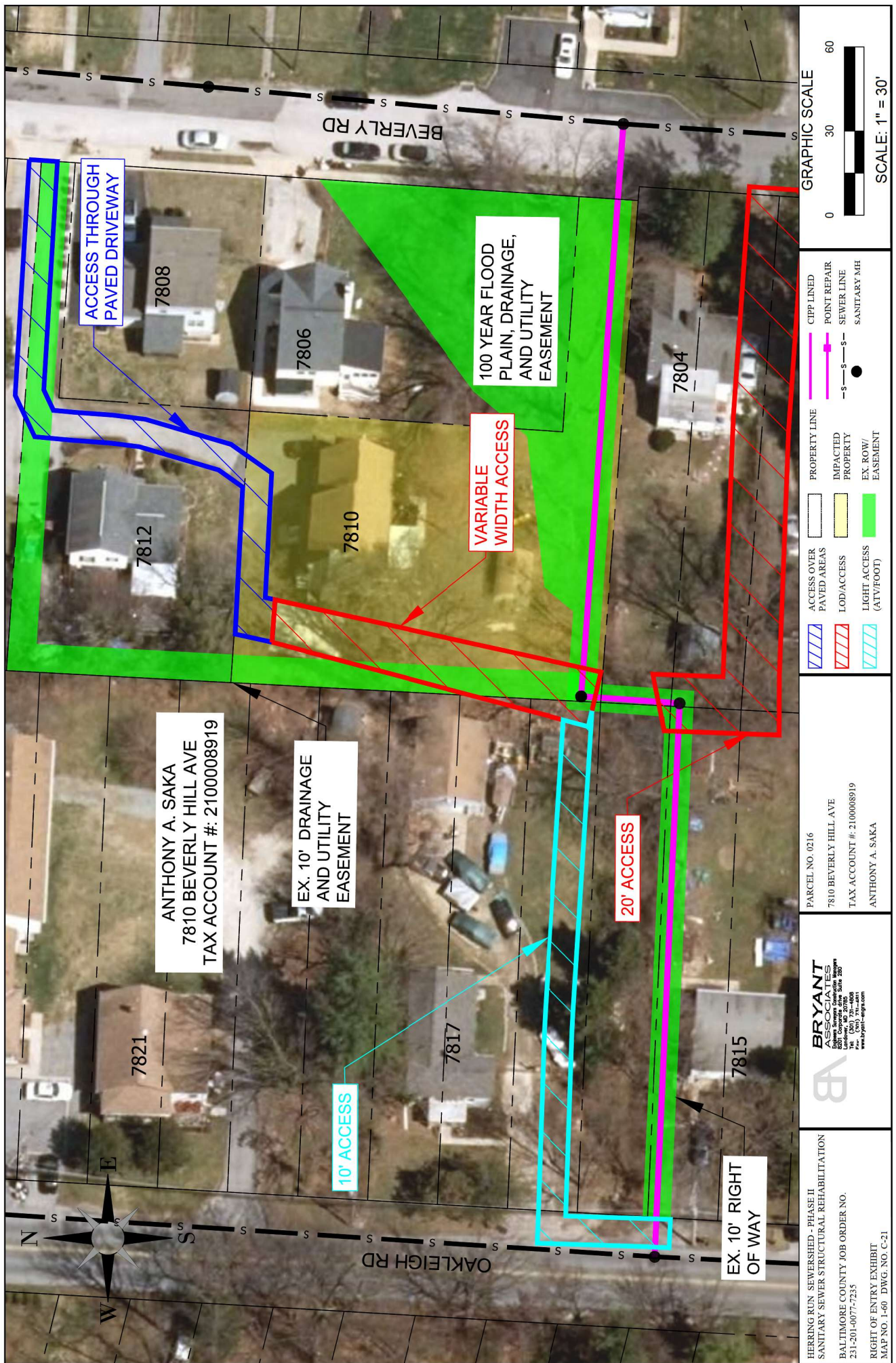


OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey

Approval or Disapproval of Substantive Nature of Transaction.

Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 15 day of August 2017, between, Gregory L. Jones and Jeffrey Williams ("the Property Owner"), owner of record of the property at 7812 Beverly Hill Avenue, Tax Account No. 2100008918, fully described in the deed recorded in the Land Records of Baltimore County at Liber 10944, folio 165 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

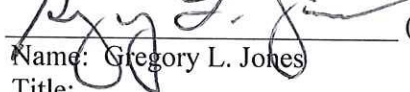
5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 15 day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:



BY:  (SEAL)  
Name: Gregory L. Jones  
Title:

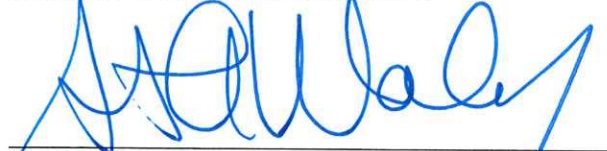


BY:  (SEAL)  
Name: Jeffrey Williams  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

BY:

  
\_\_\_\_\_  
Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
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Exhibit A





RW 2017-030  
J.O.: 201-0077-7235  
Item: 69(E)  
Election District: 09c04

## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Right of Entry Agreement ("Agreement"), made this 31<sup>st</sup> day of December, 2019, between Pitti Karla G. Serrano and Galvez Damaso Alexis Rodriguez, Owners of record of the property more fully described in Exhibit A attached hereto and made a part hereof (the "Property") and Baltimore County, Maryland, a body corporate and politic ("County").

WHEREAS, the County desires to enter upon a portion of the Property for the purpose of the installation and repair of public sanitary sewer systems. Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the undersigned Property Owners agree that immediate entry as above described will not adversely affect the interests of the Property Owners, are willing to grant unto the County, its officials, agents, employees, contractors and assigns, permission to immediately enter the upon the Property, and acknowledges that this grant of entry rights shall not be revocable by the Owners, their successors or assigns, or any third-party authorized or purporting to be authorized to act on behalf of the Owners, their successors or assigns.

NOW THEREFORE, for good and valuable consideration stated herein, the receipt and sufficiency of which is hereby acknowledged, the Property Owners do hereby irrevocably grant unto the County, its successors and assigns, contractors, agents, employees and/or licensees, the non-exclusive right to enter upon the Property, for the above-described purposes, effective immediately upon execution by the parties hereto.

IT IS UNDERSTOOD AND AGREED that this IRREVOCABLE RIGHT OF ENTRY AGREEMENT is granted subject to the following conditions except as specified in Exhibit A, as attached hereto, if applicable:

1. **Term** The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of 1 year from the start of construction of the entire project.
2. **Indemnification** In consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article of the Annotated Code of Maryland, as amended from time to time, agrees on behalf of itself, its respective contractors and employees, to indemnify, protect, and hold harmless the undersigned Property Owner, their personal representatives, successors, heirs and assigns,

from and against any and all claims, demands, and actions in respect to any loss, injury or damages caused by or arising out of the actions of the County, its successors and assigns, employees, agents, contractors and/or licensees, pursuant to this Agreement.

3. **Remedies** In the event of any alleged breach by the County, of the obligations contained herein, including but not limited to activity on, over or against the Property beyond the scope of the aforementioned purposes, the Property Owners, their personal representatives, successors, heirs and assigns shall, provide written notice stating the allegations. Upon receipt of the written notice, the County will have reasonable period to review the allegations and visit the site in order to establish whether a breach has occurred, and to propose a cure and schedule to accomplish a cure of the breach. If the County has not satisfactorily responded to the Property Owners within 30 days, the sole remedy hereunder is an action for specific performance.
4. **Notices** In alleging a breach of the agreement by the County, the Property Owners, their personal representatives, successors, heirs or assigns shall notify the County in writing immediately upon discovering the breach. This written communication, which shall specify the origin and duration of the breach as well as allege any harm or liability incurred, shall be delivered by hand, sent prepaid by overnight delivery service, or sent by the United States mail, certified, postage prepaid, return receipt requested, at the addresses designated below. Any notice, request, demand or other communication delivered or sent in accordance with this paragraph shall be deemed given or made (as the case may be) when actually delivered to the intended recipient.

For the County:

Amy L. Hicks Grossi  
Assistant County Attorney  
Head, Real Estate Compliance  
Baltimore County Office Building  
111 West Chesapeake Avenue, Suite 112  
Towson, Maryland 21204

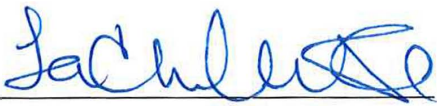
The parties hereto agree that this Agreement shall be deemed validly executed and delivered by a party if a party executes this Agreement and delivers a copy of the executed Agreement to the other party by facsimile, telefax or telecopier transmittal. In the event a party executes this Agreement by facsimile, or telefax, or telecopier transmittal, the signature of the party shall be witnessed at the time of signing, and the parties further agree that this Agreement may be executed in counterparts, each of which when considered together shall constitute the original Agreement. A facsimile, telefax or telecopier transmittal of a signed acceptance, addendum, amendment or notice relating to this Agreement received by facsimile, telefax or telecopier transmittal shall be deemed the equivalent of the original.

[SIGNATURES APPEAR ON FOLLOWING PAGES]

The undersigned Property Owners join in this IRREVOCABLE RIGHT OF ENTRY AGREEMENT this 31<sup>st</sup> day of December, 20 19, for the purpose of granting the aforescribed Irrevocable Right of Entry.

WITNESS:

PROPERTY OWNER:





 (SEAL)

Pitti Karla G. Serrano

Address: 7804 Beverly Ave.  
Parkville, MD, 21234

Telephone Number: 443 469 6588



 (SEAL)

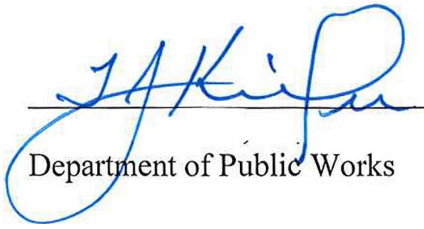
Galvez Damaso Alexis Rodriguez

Address: 7804 Beverly Ave.  
Parkville, Md. 21234

Telephone Number: 443-500-7582

(SIGNATURES CONTINUE ON FOLLOWING PAGE)

APPROVED AND ACCEPTED:

  
Department of Public Works

Witness:

Baltimore County, Maryland

 By:   
Stacy L. Rodgers  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

(Subject to Execution by the Duly Authorized Administrative  
Official and/or Chairman of the County Council, as indicated)


  
OFFICE OF THE COUNTY ATTORNEY  
(\*Approval of Legal Form and Sufficiency Does Not  
Convey Approval Or Disapproval of the Substantive  
Nature of This Transaction. Approval is Based Upon  
Typeset Document-All Modifications Require Re-Approval.)



Exhibit 'A'



**HERRING RUN SEWERSHED - PHASE II**  
**SANITARY SEWER STRUCTURAL REHABILITATION**

BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235

RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-63 DWG. NO. C-21

**BRYANT ASSOCIATES**  
Engineers Surveyors Construction Managers  
8201 Corporate Center Suite 280  
Baltimore, MD 21208  
Tel: (301) 731-4808  
Fax: (301) 731-4811  
www.bryant-engineers.com

PARCEL NO. 0142  
7804 BEVERLY AVE  
TAX ACCOUNT #: 0903771280  
Pitti Karla G. Serrano  
Galvez Damaso Alexis Rodriguez

**GRAPHIC SCALE**  
0 30 60  
SCALE: 1" = 30'

ACCESS OVER PAVED AREAS	PROPERTY LINE	CIPP LINED
LOD/ACCESS	IMPACTED PROPERTY	POINT REPAIR
LIGHT ACCESS (ATV/FOOT)	EX. ROW/ EASEMENT	SEWER LINE
		SANITARY MH



## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 7 day of August 2017, between, James Walter Pfefferkorn ("the Property Owner"), owner of record of the property at 7801 Beverly Hill Avenue, Tax Account No. 0915100070, fully described in the deed recorded in the Land Records of Baltimore County at Liber 17845, folio 534 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out



of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

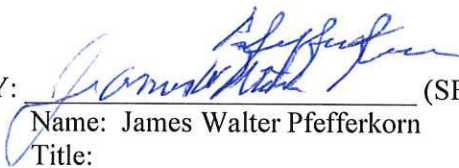
5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 7 day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:

Melissa Marie Bosley

BY:  (SEAL)  
Name: James Walter Pfefferkorn  
Title:

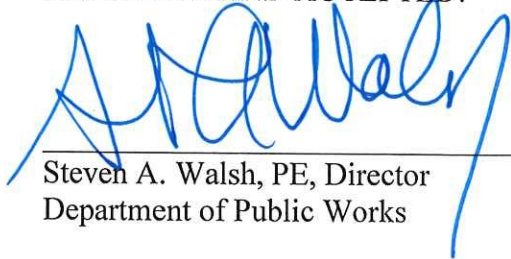
\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:



\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

 BY:   
\_\_\_\_\_  
WITNESS Fred Homan  
County Administrative Officer

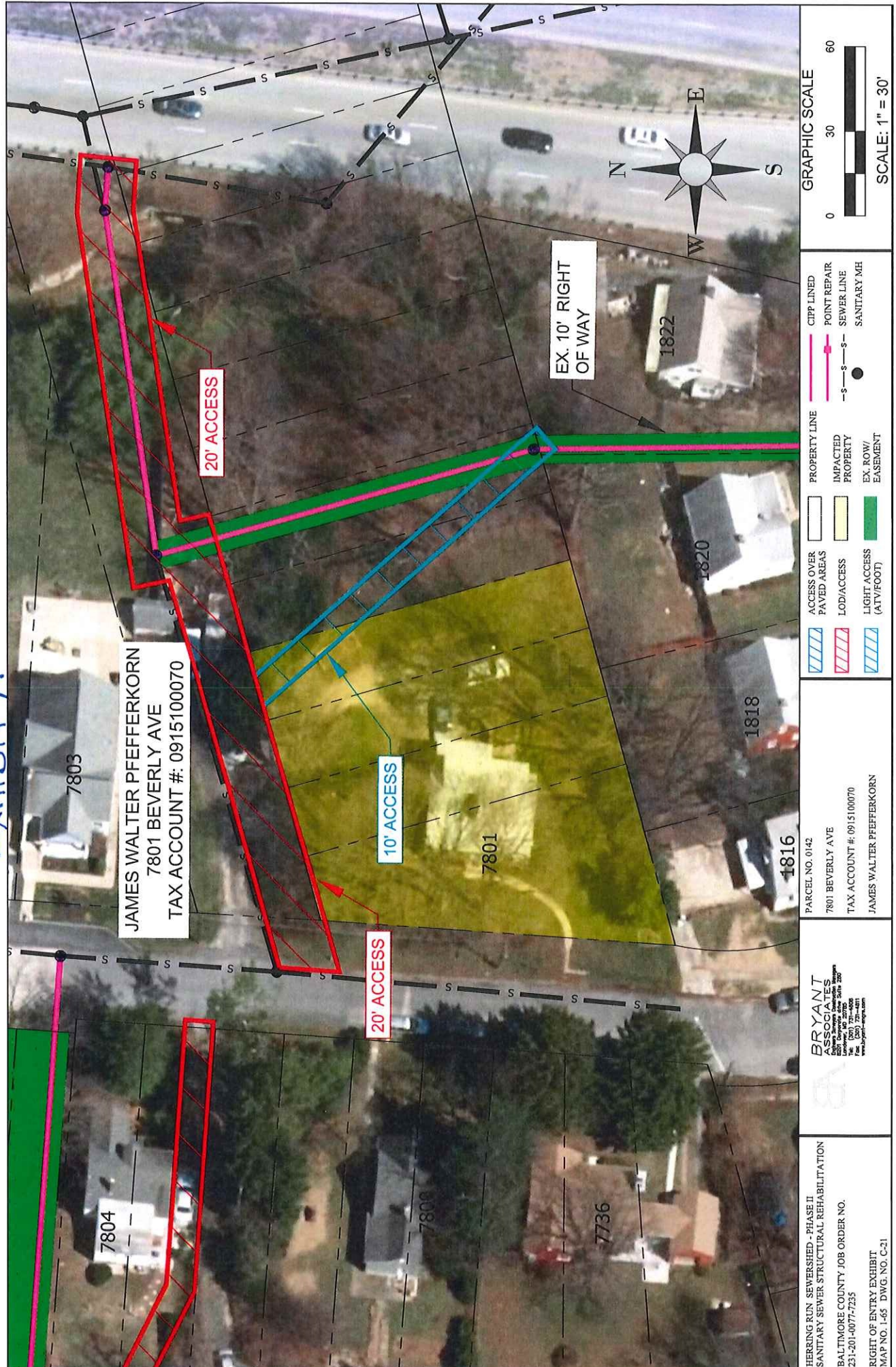
APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
Administrative Official and County Council, if Indicated)

  
\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

\*Approval of Legal Form and Sufficiency Does Not Convey  
Approval or Disapproval of Substantive Nature of Transaction.  
Approval is Based Upon Typeset Document. All Modifications Require Re-Approval.



Exhibit 'A'





## IRREVOCABLE RIGHT OF ENTRY AGREEMENT

With  
Baltimore County, Maryland

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 4 day of June 2018, between, Luis A. Mallea and Jeyna V. Mallea ("the Property Owner"), owner of record of the property at 1822 Wendover Road, Tax Account No. 0911670380, fully described in the deed recorded in the Land Records of Baltimore County at Liber 36650, folio 455 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.


5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 4 day of June, 2018, for the purposes herein stated.


Witness:

Property Owner:

\_\_\_\_\_

BY:  (SEAL)  
Name: Luis A. Mallea  
Title:

\_\_\_\_\_

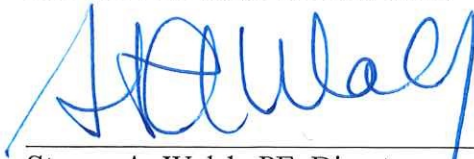
BY:  (SEAL)  
Name: Jeyna V. Mallea  
Title:

\_\_\_\_\_


BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:




APPROVED AND ACCEPTED:

  
\_\_\_\_\_  
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
\_\_\_\_\_  
WITNESS

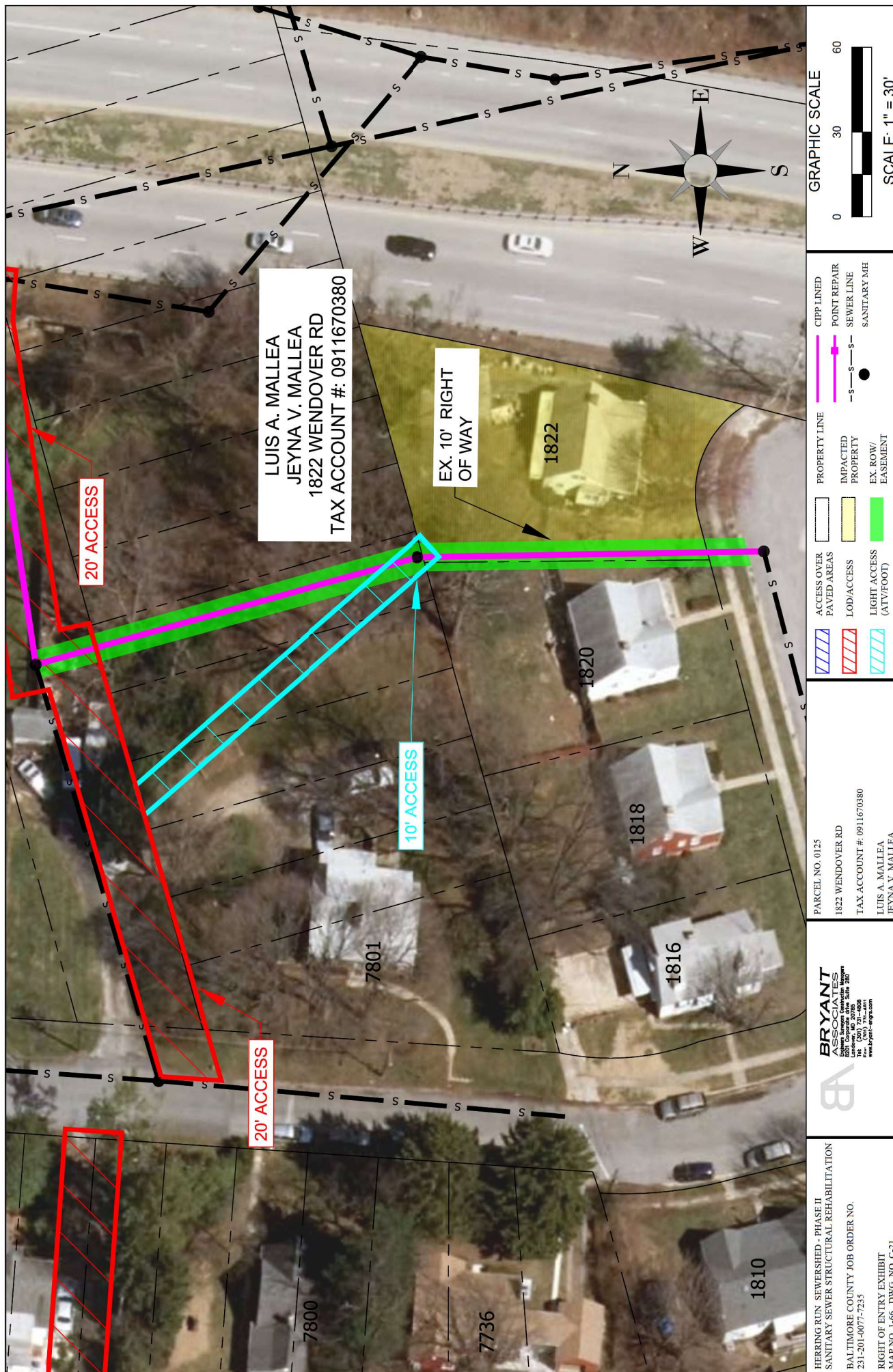
BY:   
\_\_\_\_\_  
Fred Homan  
County Administrative Officer



APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
(Subject to Execution by A Duly Authorized County  
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\_\_\_\_\_  
OFFICE OF THE COUNTY ATTORNEY

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**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this Wednesday day of Aug 9 2017, between, Arthur E. Parks and Marie A. Parks ("the Property Owner"), owner of record of the property at 2306 Foster Avenue, Tax Account No. 0918002850, fully described in the deed recorded in the Land Records of Baltimore County at Liber 6562, folio 173 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this Wed. day of Aug 9, 2017, for the purposes herein stated.

Witness:


Property Owner:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)

Name: Arthur E. Parks

Title:

 \_\_\_\_\_

BY: Marie A Parks (SEAL)

Name: Marie A. Parks

Title:

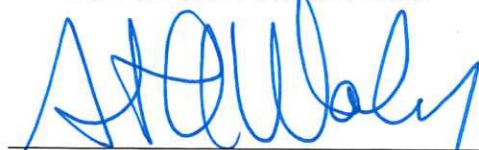
\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)

Name:

Title:

APPROVED AND ACCEPTED:



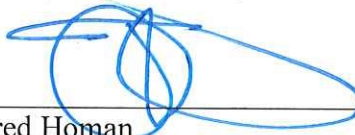
Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:



WITNESS

BY:



Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*

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OFFICE OF THE COUNTY ATTORNEY

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Exhibit 'A'

ARTHUR E. PARKS  
MARIE A. PARKS  
2306 FOSTER AVE  
TAX ACCOUNT #: 0918002850

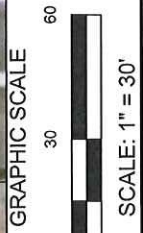


HERRING RUN SEWERSHED - PHASE II  
SANITARY SEWER STRUCTURAL REHABILITATION  
BALTIMORE COUNTY JOB ORDER NO.  
231-201-0077-7235  
RIGHT OF ENTRY EXHIBIT  
MAP NO. 1-67 DWG. NO. C-23

**BRYANT**  
ENGINEERS & ARCHITECTS  
1000 W. BALTIMORE AVE.  
BALTIMORE, MD 21201  
Tel: (410) 751-4000  
Fax: (410) 751-4001  
www.bryant-engineers.com

PARCEL NO. 1134  
2306 FOSTER AVE  
TAX ACCOUNT #: 0918002850  
ARTHUR E. PARKS  
MARIE A. PARKS

- ACCESS OVER PAVED AREAS
- LOD/ACCESS
- LIGHT ACCESS (ATV/FOOT)
- PROPERTY LINE
- IMPACTED PROPERTY
- EX. ROW/ EASEMENT
- CIPP LINED
- POINT REPAIR
- SEWER LINE
- SANITARY MH





**IRREVOCABLE RIGHT OF ENTRY AGREEMENT**  
**With**  
**Baltimore County, Maryland**

This Irrevocable Right of Entry Agreement ("the Agreement"), made this 3 day of August 2017, between, Walter S. Cwik, Trustee ("the Property Owner"), owner of record of the property at 2306 Ellen Avenue, Tax Account No. 0904001710, fully described in the deed recorded in the Land Records of Baltimore County at Liber 16158, folio 144 (collectively "the Property"), and Baltimore County, Maryland, a body corporate and politic (the "County").

WHEREAS the County desires to enter upon portions of the Property to perform structural sewer rehabilitation for existing public sanitary sewer systems. To complete the structural rehabilitation, the County must have legal access to enter upon the Property to access designated manholes. (the "Work"). Any tree having a butt diameter of 3" or less obstructing access to perform the Work will be removed by County personnel; and

WHEREAS, the Property Owner is willing to grant the County, its officials, agents, employees, contractors and assigns (the "County"), permission to immediately enter the Property, which will include entry through any and all fences or gates, to perform the Work.

NOW THEREFORE, in consideration of the premises and such other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the Property Owner hereby covenants and agrees as follows:

1. Property Owner hereby grants this Irrevocable Right of Entry to the County to immediately enter upon the portions of the Property as shown Right of Entry Exhibit, prepared by Bryant Associates, and hereby incorporated as Exhibit "A" respectively, to perform the Work, those rights to include pedestrian and vehicular access, as necessary, and the rights to perform any tasks normally required for and related to this type of work.

2. The term of this Agreement shall be effective immediately upon full execution hereof by both parties and run for a period of one year or the date that the County is granted permanent easement rights by the Property Owner in a form that is recordable in the Land Records of Baltimore County, MD, whichever is later.

3. As consideration for the rights of entry set forth in this Agreement, the County, subject to the limitations set forth in the Local Government Tort Claims Act, Sections 5-301 through 5-304 of the Courts and Judicial Proceedings Article, as amended, agrees on behalf of itself, its respective successors, assigns, and licensees, to indemnify, protect, and hold harmless the undersigned property owners, its successors and assigns from and against any and all costs, liability, suits, and expenses in respect to any and all loss of life, property, injury, or damages to persons or property of any person, firm, or corporation (including the parties hereto, their respective officers, agents, contractors, employees and licensees) and from and against any and all claims, demands, and actions in respect to such loss, injury, or damages caused by or growing out

of the Work, provided said costs, liability, suits, expenses, claims, demands, and/or actions were caused by the negligence of the County, its successors, assigns, agents, employees, contractors or licensees.

4. The County will make reasonable efforts to restore the Property to the condition it was in before the County entered the Property pursuant to this Agreement.

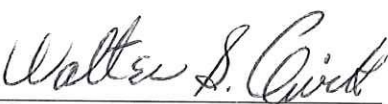

5. The Property Owner hereby certifies to being the fee simple titleholder of the Property seized of the right and title to grant the rights herein without the joinder or agreement of any other party, and without violating the terms of any other agreements or interests of others in the Property.

The undersigned property owner joins in this IRREVOCABLE ENTRY AGREEMENT this 3 day of August, 2017, for the purposes herein stated.

Witness:

Property Owner:



BY:  (SEAL)  
Name: Walter S. Cwik, Trustee  
Title: 

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

\_\_\_\_\_

BY: \_\_\_\_\_ (SEAL)  
Name:  
Title:

APPROVED AND ACCEPTED:



Steven A. Walsh, PE, Director  
Department of Public Works

BALTIMORE COUNTY, MARYLAND:

  
WITNESS

BY:



8/23/17

Fred Homan  
County Administrative Officer

APPROVED FOR LEGAL FORM AND SUFFICIENCY\*  
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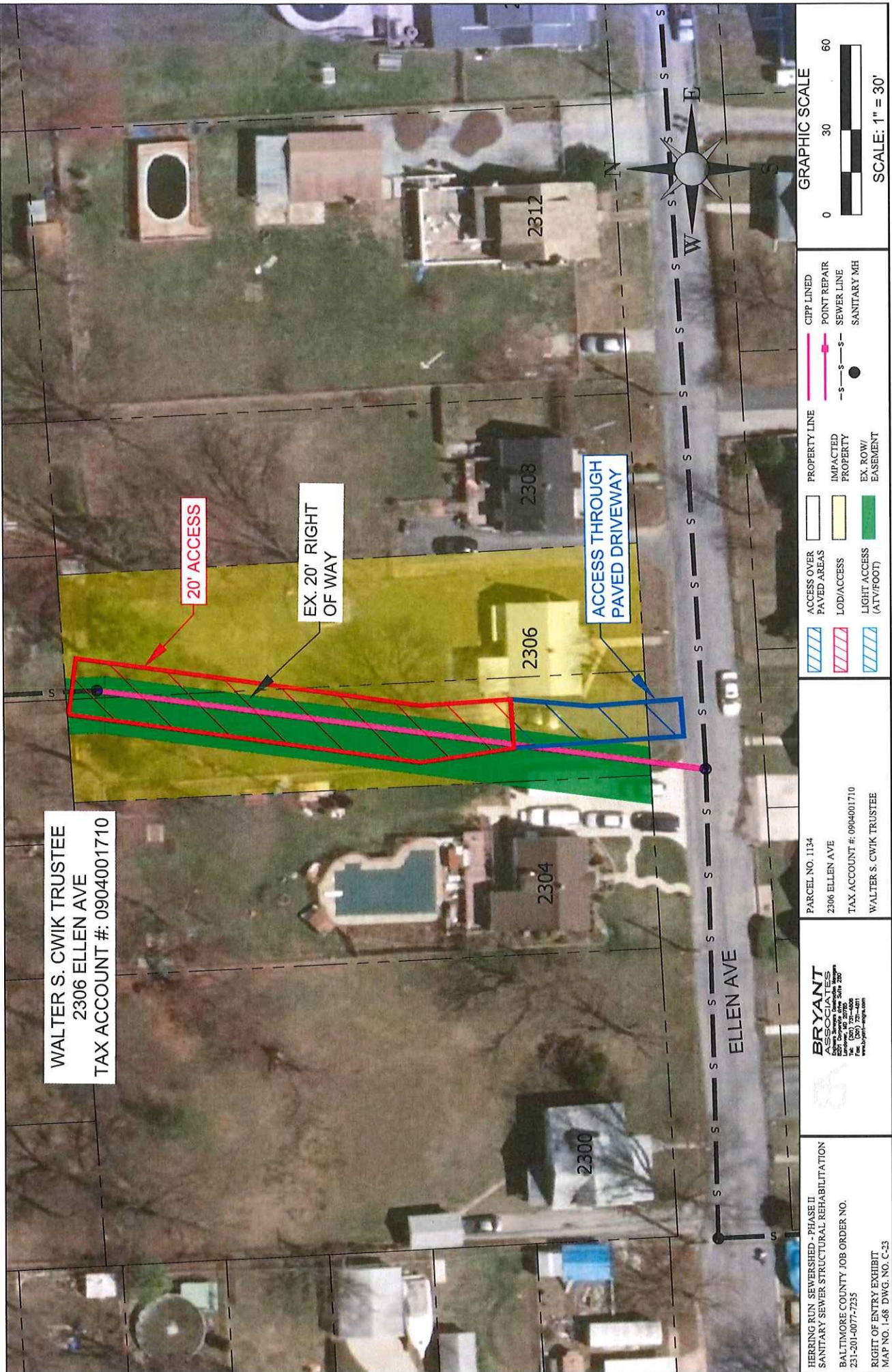
OFFICE OF THE COUNTY ATTORNEY

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Exhibit 'A'

WALTER S. CWIK TRUSTEE  
2306 ELLEN AVE  
TAX ACCOUNT #: 0904001710





## **SECTION I V**

### **Proposal**

**This Section to be  
Completed by Time of Bid**

**SECTION-IV**  
**PROPOSAL**

**DESCRIPTION OF WORK**

**Bid Opening via Teleconference WebEx Thursday, July 24, 2025 10:30 a.m. EST**  
**WebEx Phone Number 1-415-655-0001, Access Code Number 2309 908 2217##.**

**Begin Work Within Fifteen (15) Days After NOTICE TO PROCEED**

**Calendar Days for Completion: Three Hundred Sixty Five (365) Calendar Days**

**If Contractor fails to complete the Contract within the required “Days for Completion”, the following Liquidated Damages will be paid by the Contractor for each Calendar Day thereafter:**

**Day 1 through Day 30 – \$2,000 per Calendar Day**

**Day 31 through Day 60 – \$3,500 per Calendar Day**

**Day 61 and thereafter – \$6,500 per Calendar Day**

**Cost Group “D (\$1,000,001 to \$2,500,000)” (Prequalified contractors with a Cost Group restriction must bid within the dollar amount stated on their Certificate of Prequalification).**

**Work Classification: F-6**

**TO BALTIMORE COUNTY, MARYLAND:** The work will include the cleanup, restabilization, restoration and disposal to maintain a safe and well-kept job site and properly repair disturbed areas of the site to a condition acceptable to the County during and upon completion of the project. The Contractor shall furnish all labor, materials, equipment and supplies to perform all work herein described. **Towson - District 9 c5.6.**

**The following listed Drawing Number(s) are collectively the “Drawings”, and are hereby incorporated in the Contract.**

<b><u>Job Order Number</u></b>	<b><u>Workday Number</u></b>	<b><u>Drawing Number(s)</u></b>
<b>231-201-0077-7235</b>	<b>010777235</b>	<b>Total Drawings 104</b>
		<b>2017-0160 thru 2017-0219</b>
		<b>Sheets 1-44 Forest Conservation Plan</b>
		<b>Forest Buffer Protection Plan</b>

A pre-bid meeting will be held on Wednesday, July 2, 2025 at 10:00 a.m. EST via WebEx.

*Phone-In (Audio Only)* – 1-415-655-0001, Meeting Number 2306 741 6415##

*Video Conference* – Meeting Number 2306 741 6415##, Password **gBeP2EREY76**,

go to <https://signin.webex.com/join>, or for the WebEx link go to

[www.baltimorecountymd.gov/departments/public-works/engineering/contracts/current-solicitations](http://www.baltimorecountymd.gov/departments/public-works/engineering/contracts/current-solicitations)

**NOTE: No successful bidder may withdraw their bid within NINETY (90) days after the opening thereof.**

The Contractor hereby declares that it has carefully examined the solicitation, plans and specifications, form of contract, Special Provisions and Drawings (collectively the “Contract Documents”). The Contractor also hereby declares that it has carefully examined the September 2023 “Standard Specifications for Construction and Materials” and “Standard Details for Construction”, collectively the “Applicable County Law” and any and all Department of Public Works and Transportation revisions thereto as of the date of advertisement. The Contract Documents, the Applicable County Law and the Department of Public Works and Transportation revisions thereto are collectively the “Specifications” and are incorporated herein. Copies of any and all Department of Public Works and Transportation revisions including but not limited to the General Conditions Building Projects, are available online at [www.baltimorecountymd.gov/departments/public-works/standards](http://www.baltimorecountymd.gov/departments/public-works/standards). Also, the Contractor has, to its satisfaction, examined the locality of the proposed work and agrees to furnish all labor, tools, materials, machinery, equipment, and other means of construction called for in the manner provided in the Specifications for the prices shown on the next page(s) and as evidenced by Contractor’s signature on the last page thereof.

**SCHEDULE OF PRICES**

**NOTE: The Bidder shall fill out this Proposal, write in the unit prices in clear numerals, and make the extensions.**

**For complete information concerning these items, see Specifications and contract forms.**

# CONTRACT PROPOSAL

HERRING RUN SEWERSHED STRUCTURAL SEWER REHABILITATION - PHASE II

CONTRACT NUMBER 17031 SX0

WORKDAY NUMBER: 010777235

JOB ORDER NUMBER 231-201-0077-7235

THREE HUNDRED SIXTY FIVE (365) CALENDAR DAYS

**CONTRACTOR:** \_\_\_\_\_

**ADDRESS:** \_\_\_\_\_

**PHONE:** \_\_\_\_\_

BID ITEM	COMM. CODE		DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL AMOUNT
1	130850		MOBILIZATION	LS	1		\$
2	800010	F	TEST PIT EXCAVATION BY VACUUM	CY	9	\$650.00	\$5,850.00
3	202030	F	BORROW FOR BACKFILLING TRENCHES - PROPER DISPOSAL OF UNSUITABLE MATERIAL	CY	50	\$80.00	\$4,000.00
4	201033	F	CLASS 3 EXCAVATION / SELECT BACKFILL - PROPER DISPOSAL OF UNSUITABLE MATERIAL	CY	50	\$130.00	\$6,500.00
5	388067	C	CONTINGENT STORM DRAIN INLET PROTECTION	EA	10		\$
6		C	CLEARING AND GRUBBING (INCLUDING TREES LESS THAN 10 INCH DIAMETER)	AC	1.5		\$
7		C	STABILIZED CONSTRUCTION ENTRANCE	EA	23		\$
8		C	SILT FENCE	LF	13,500		\$
9			TEMPORARY ACCESS ROADS	LS	1		\$
10		C	REMOVE/REPLACE EXISTING FENCE	LF	250		\$
11		C	TREE TRUNK PROTECTION	EA	50		\$
12		F	TEMPORARY TRAFFIC SIGNS	SF	500	\$22.00	\$11,000.00

13	899350		CURB & GUTTER (REPLACEMENT)	LF	150		\$
14			CURED-IN-PLACE PIPE LINING - 8" MAIN LINE	LF	8,056		\$
15			CURED-IN-PLACE PIPE LINING - 12" MAIN LINE	LF	1,680		\$
16			CURED-IN-PLACE PIPE LINING - 15" MAIN LINE	LF	3,262		\$
17		C	SUPPLEMENTAL HEAVY CLEANING OF MAIN LINES (8" - 15")	LF	1,300		\$
18			PVC POINT REPAIR (EXCAVATE AND REPAIR) 8" - 15" SEWER, (UP TO 12-FEET DEEP) - NOT IN ROADWAY	LF	118		\$
19		C	PVC POINT REPAIR (EXCAVATE AND REPAIR) 8" - 15" SEWER, (UP TO 12-FEET DEEP) - NOT IN ROADWAY	LF	16		\$
20		C	PVC POINT REPAIR (EXCAVATE AND REPAIR) 8" - 15" SEWER, (GREATER THAN 12-FEET DEEP) - NOT IN ROADWAY	LF	12		\$
21		F	FINAL ACCEPTANCE CCTV INSPECTION 8" - 15" SEWER	LF	12,998	\$4.00	\$51,992.00
22			TEST AND CHEMICALLY GROUT SERVICE CONNECTIONS AND FIRST JOINT SECTION	EA	18		\$
23		C	CONTINGENT TEST AND CHEMICALLY GROUT SERVICE CONNECTIONS AND FIRST JOINT SECTION	GAL	50		\$
24		C	CONTINGENT SEWER HOUSE CONNECTION LATERAL SEAL	EA	2		\$
25		C	SUPPLEMENTAL HEAVY CLEANING OF LATERALS	LF	75		\$
26			MANHOLE REHABILITATION (CEMENTITIOUS)	VF	954		\$
27			REPLACE MANHOLE FRAME & COVER	EA	1		\$
28			SET-UP AND OPERATE SEWAGE BYPASS PUMPING STATION	LS	1		\$
<b>TOTAL COST FOR CONTRACT</b>							<b>\$</b>

TOTAL COST FOR CONTRACT IN WORDS

\_\_\_\_\_  
OFFICER SIGNATURE

\_\_\_\_\_  
TITLE

## PROPOSAL AFFIDAVIT

### 1. AUTHORIZED REPRESENTATIVE

I HEREBY AFFIRM THAT:

I am the [title]\_\_\_\_\_ and the duly authorized representative of [business]\_\_\_\_\_ (the "Business") and that I possess the legal authority to make this Affidavit on behalf of myself and the Business for which I am acting.

### 2. PROPOSAL CERTIFICATION

THE UNDERSIGNED HEREBY ACKNOWLEDGES receipt of the following Addenda (list by number and date):

---

---

Accompanying this Proposal is a Bid Bond in an amount of 5% of the bid, the exact amount to be determined by the difference between the low bid and the next lowest bid, if two or more bids are received, or 5% of the bid if one bid is received. This guarantees payment to Baltimore County of the amount thus determined as liquidated damages in case of default in any matter specified as required before award or in any matter resulting in failure to execute and deliver an Agreement, together with Payment and Performance Bonds, after award.

### 3. AFFIRMATION REGARDING BRIBERY CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the Business, nor any of its officers, directors, partners, or any of its employees directly involved in obtaining or performing contracts with public bodies (as is defined in Section 16-101(f) of the State Finance and Procurement Article of the Annotated Code of Maryland), has been convicted of, or has had probation before judgment imposed pursuant to Section 6-225 of the Criminal Procedure Article of the Annotated Code of Maryland, or has pleaded nolo contendere to a charge of, bribery, attempted bribery, or conspiracy to bribe in violation of Maryland law, or of the law of any other state or federal law, except as follows [indicate the reasons why the affirmation cannot be given and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of person(s) involved, and their current positions and responsibilities with the Business]:

---

---

### 4. AFFIRMATION REGARDING OTHER CONVICTIONS

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the Business, nor any of its officers, directors, partners, or any of its employees directly involved in obtaining or performing contracts with public bodies, has:

(1) Been convicted under state or federal statute of a criminal offense incident to obtaining, attempting to obtain, or performing a public or private contract, fraud, embezzlement, theft, forgery, falsification or destruction of records, or receiving stolen property;

(2) Been convicted of any criminal violation of a state or federal antitrust statute;



(3) Been convicted under the provisions of Title 18 of the United States Code for violation of the Racketeer Influenced and Corrupt Organization Act, 18 U.S.C. §1961, et seq., or the Mail Fraud Act, 18 U.S.C. §1341, et seq., for acts arising out of the submission of bids or proposals for a public or private contract;

(4) Been convicted of a violation of the State Minority Business Enterprise Law, Section 14-308 of the State Finance and Procurement Article of the Annotated Code of Maryland;

(5) Been convicted of conspiracy to commit any act or omission that would constitute grounds for conviction or liability under any law or statute described in subsection (1), (2), (3), or (4) above;

(6) Been found civilly liable under a state or federal antitrust statute for acts or omissions in connection with the submission of bids or proposals for a public or private contract;

(7) Admitted in writing or under oath, during the course of an official investigation or other proceedings, acts or omissions that would constitute grounds for conviction or liability under any law or statute described above, except as follows [indicate reasons why the affirmations cannot be given, and list any conviction, plea, or imposition of probation before judgment with the date, court, official or administrative body, the sentence or disposition, the name(s) of the person(s) involved and their current positions and responsibilities with the Business, and the status of any debarment]:

---

---

## **5. AFFIRMATION REGARDING DEBARMENT**

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the Business, nor any of its officers, directors, partners, or any of its employees directly involved in obtaining or performing contracts with public bodies, has ever been suspended or debarred (including being issued a limited denial of participation) by any public entity, except as follows [list each debarment or suspension providing the dates of the suspension or debarment, the name of the public entity and the status of the proceeding, the name(s) of the person(s) involved and their current positions and responsibilities with the Business, the grounds of the debarment or suspension, and the details of each person's involvement in any activity that formed the grounds of the debarment or suspension]:

---

---

## **6. AFFIRMATION REGARDING DEBARMENT OF RELATED ENTITIES**

I FURTHER AFFIRM THAT:

(1) The Business was not established and it does not operate in a manner designed to evade the application of or defeat the purpose of debarment pursuant to Sections 16-101, et seq., of the State Finance and Procurement Article of the Annotated Code of Maryland; and

(2) The Business is not a successor, assignee, subsidiary, or affiliate of a suspended or debarred business, except as follows: [you must indicate the reasons why the affirmations cannot be given without qualification]:

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## 7. SUB-CONTRACT AFFIRMATION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the Business, has knowingly entered into a contract with a public body under which a person debarred or suspended 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.

## 8. AFFIRMATION REGARDING COLLUSION

I FURTHER AFFIRM THAT:

Neither I, nor to the best of my knowledge, information, and belief, the Business, nor any of its officers, directors, members or partners, nor any of its employees, have in any way:

(1) Agreed, conspired, connived, or colluded to produce a deceptive show of competition in the compilation of the accompanying bid or offer that is being submitted;

(2) In any manner, directly or indirectly, entered into any agreement of any kind to fix the bid price or price proposal of the bidder or offeror or of any competitor, or otherwise take any action in restraint of free competitive bidding in connection with the contract for which the accompanying bid or offer is submitted;

(3) Colluded with anyone to obtain information concerning the bid that would give the Business an unfair advantage over others.

## 9. POLITICAL CONTRIBUTION DISCLOSURE AFFIRMATION

I FURTHER AFFIRM THAT:

The Business affirms that it is aware of, and will comply with, the provisions of Sections 14- 101 through 14-108 of the Election Law Article of the Annotated Code of Maryland, which require that every person who makes, during any 12-month period, one or more contracts, with one or more Maryland governmental entities involving cumulative consideration, or at least \$200,000.00, shall file with the State Board of Elections certain specified information to include disclosure of attributable political contributions in excess of \$500 during defined reporting periods.

## 10. CERTIFICATION OF CORPORATION REGISTRATION AND TAX PAYMENT

I FURTHER AFFIRM THAT:

(1) The Business is a \_\_\_\_\_(State) (Corporation), (LLC), (Partnership), (Sole Proprietor/Individual), (Other:\_\_\_\_\_), that it **is** registered in accordance with the Corporations and Associations Article of the Annotated Code of Maryland, that it **is** in good standing in the State of Maryland, and that it **has** filed all of its annual reports, together with filing fees, with the Maryland State Department of Assessments and Taxation, and that the name and address of its resident agent filed with the State Department of Assessments and Taxation is:

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

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

\_\_\_\_\_  
(If none, so state)

(2) Except as validly contested, the Business has paid, or has arranged for payment of, all taxes due the State of Maryland and Baltimore County, and has filed all required returns and reports with the Comptroller of the Treasury, the State Department of Assessments and Taxation, and the Employment Security Administration, as applicable, and will have paid all withholding taxes due the State of Maryland prior to final settlement.

## **11. CONTINGENT FEES**

I FURTHER AFFIRM THAT:

The Business has not employed or retained any person, partnership, corporation, or other entity, other than a bona fide employee or agent working for the Business, to solicit or secure the Contract, and that the Business has not paid or agreed to pay any person, partnership, corporation, or other entity, other than a bona fide employee or agent, any fee or other consideration contingent on the making of the Contract.

## **12. NONDISCRIMINATION IN EMPLOYMENT STATEMENT**

I FURTHER AFFIRM THAT:

During the performance of any contract awarded of which this affidavit is a part:

(1) The Business will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, national origin, marital status, sexual orientation, genetic information, or disability unrelated in nature and extent so as to reasonably preclude the performance of the employment, or because of the individual's refusal to submit to a genetic test or make available the results of a genetic test. The Business will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, age, national origin, marital status, sexual orientation, genetic information, or disability unrelated in nature and extent so as to reasonably preclude the performance of the employment, or because of the individual's refusal to submit to a genetic test or make available the results of a genetic test. Such action shall include, but not be limited to the following: employment, promotion, upgrading, demotion or transfer, rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Business agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the owner setting forth provisions of this nondiscrimination clause.

(2) The Business will, in all solicitations or advertisements for employees placed by or on behalf of the Business, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, national origin, marital status, sexual orientation, genetic information, or disability unrelated in nature and extent so as to reasonably preclude the performance of the employment, or because of the individual's refusal to submit to a genetic test or make available the results of a genetic test.

(3) The Business shall send to each labor union or representative of workers with which the Business has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the owner, advising the said labor union or workers' representative of these commitments, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Business shall furnish, if requested by the County, a compliance report concerning our employment practices and policies in order for the County to ascertain compliance with the special provisions of this affidavit concerning nondiscrimination in employment.

(5) In the event of the Business's noncompliance with the nondiscrimination clause of this affidavit, the contract may be canceled, terminated, or suspended in whole or in part, and the Business may be declared ineligible for further County work.

(6) The Business shall include the special provisions outlined herein pertaining to nondiscrimination in employment in every subcontract, so that such nondiscrimination in employment provisions shall be binding on each subcontractor or vendor.

### **13. FOREIGN CONTRACTS**

I FURTHER AFFIRM THAT:

The Business affirms that it is aware of, and will comply with, the provisions of Sections 10-2-110 Article 10. Finance, Title 2 – Purchasing, Baltimore County Code 2003, which requires that prior to the award of a contract for services under the provisions of this title, and during the entire term of a contract award, the bidder or vendor shall disclose to the County whether any services covered by the bid or contract, including any subcontracted services, will be performed outside the United States. The disclosure shall be made to the Office of Budget and Finance, Purchasing Bureau.

### **14. MINORITY BUSINESS ENTERPRISE AND FEMALE CONTRACTORS**

THIS BUSINESS INTENDS to affirmatively seek out and consider minority business enterprises to participate in this contract as subcontractors and/or suppliers of materials and services.

THE UNDERSIGNED UNDERSTANDS AND AGREES: that any and all subcontracting of supplies and services in connection with this contract, whether undertaken before or after award of contract, will be in accordance with the Minority Business Enterprise and Female Contractor requirement included in the Bid Proposal package and incorporated herein as if fully set forth; and

THE UNDERSIGNED ALSO UNDERSTANDS AND AGREES that no subcontracting will be approved until Baltimore County has reviewed and approved the affirmative actions taken by this firm.

### **15. REQUIREMENTS FOR EXECUTING AFFIDAVIT & PROPOSAL**

The Affidavit must be signed in ink in order for the bid to be accepted and that the Proposal must be typewritten or filled out in ink.

THE UNDERSIGNED ALSO UNDERSTANDS that:

Proposals submitted by an INDIVIDUAL must be signed by an individual.

Proposals submitted by a PARTNERSHIP must be signed by the partner who is legally authorized authority to bind the partnership. Attach a copy of the Partnership Agreement and a duly certified resolution evidencing the authority of the partner so signing on behalf of the partnership.

Proposals submitted by a CORPORATION must be signed by a legally authorized officer of the corporation and attested to by the Corporate Secretary. Attach a copy of the Articles of Incorporation, By-Laws and a duly certified Board Resolution evidencing the authority of the officer so signing on behalf of the corporation.

Proposals submitted by a LIMITED LIABILITY COMPANY must be signed by a legally authorized member of the company and attested to. Attach a copy of the Operating Agreement, Articles of Organization and a duly certified resolution evidencing the authority of the member so signing on behalf of the limited liability company.

**NOTE:** The contractor may file with the County a list of the names of those officers, partners or members, as applicable, having legal authority to execute documents on behalf of and legally bind the contractor, duly certified, as applicable and legally required, together with the aforesaid corporate documents, which shall remain in full force and effect until such time as the County Department of Public Works and Transportation, Construction Contract Administration is advised in writing to the contrary.

## 16. ACKNOWLEDGMENT

I ACKNOWLEDGE THAT this Affidavit is to be furnished to the County and may be distributed to units of (1) Baltimore County; (2) the State of Maryland; (3) other counties or political subdivisions of the State of Maryland; (4) other states; and (5) the federal government. I further acknowledge that this Affidavit is subject to applicable laws of the United States and the State of Maryland, both criminal and civil, and that nothing in this Affidavit or any contract resulting from the submission of this bid or proposal shall be construed to supersede, amend, modify or waive, on behalf of Baltimore County, or the State of Maryland or any unit of the State of Maryland having jurisdiction, the exercise of any statutory right or remedy conferred by the Constitution and the laws of Maryland with respect to any misrepresentation made or any violation of the obligations, terms and covenants undertaken by the Business with respect to (a) this Affidavit, (b) the contract, and (3) other Affidavits comprising part of the contract.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

WITNESS/ATTEST:

_____	By: _____
Date: _____	Name: _____
	Title: _____
	(Authorized Representative and Affiant)



## BID BOND

Principal \_\_\_\_\_

Business Address of Principal \_\_\_\_\_

Surety \_\_\_\_\_

Obligee: **BALTIMORE COUNTY, MARYLAND**  
A body corporate and politic

A Corporation of the State of \_\_\_\_\_ and authorized to do business in Maryland

Five Percent of Bid Amount \_\_\_\_\_ \$ \_\_\_\_\_ 5% of Bid

Penal Sum of Bond [shall be determined pursuant to latest revised Specification / G.P. 2.07 (2000 Ed.)]

**Herring Run Sewershed Structural Sewer Rehabilitation – Phase II**  
Contract Name

**17031 SX0**  
Contract Number/Proposal Item Number

**KNOW ALL MEN BY THESE PRESENTS**, that we, the Principal, above named, and Surety, above named, and authorized to do business in the State of Maryland, are held and firmly bound unto the Obligee, above named, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**THE CONDITION OF THIS OBLIGATION** is such that if the aforesaid Principal is the apparent low bidder and complies with all specified matters required before award or if the aforesaid Principal is awarded the contract, the said Principal will, within the time required, execute and deliver to the Obligee a formal contract and good and sufficient payment and performance bonds in the form provided by the Obligee, then, this obligation to be void; otherwise the Principal and Surety will, upon demand, pay unto the Obligee the entire Penal Sum of this Bid Bond as liquidated damages.

**THE SURETY FURTHER GUARANTEES** No Proposal will be considered unless accompanied by a guaranty of the amount specified in the Proposal in the form of either a certified check, bank cashier's check or a Bid Bond on the form provided therein or an exact facsimile thereof. The Bid Bond must be executed by a Surety that is, as of the date of the Bid: (a) licensed in the State of Maryland, (b) rated "B" or better by the A.M. Best Company, (c) on federal funded projects, authorized by the underwriting limitation contained in the U.S. Department of the Treasury Circular 570, as amended, to guaranty the amount of the Bid, and (d) in good standing as determined by the County's Engineer. The Bid Bond must guaranty payment to the County of liquidated damages as follows: (a) if only one Bid is received, the guaranteed payment shall be five (5%) percent of the Bidder's Bid amount, (b) if two or more Bids are received, the guaranteed payment shall be the difference between the Bidder's Bid amount and the next lowest Bid amount, subject to the limitation that the guaranteed payment not be greater than five (5%) percent of the Bidder's Bid amount. This Bid Bond is required in case the successful Bidder, after issuance of notice of Award, fails to comply, timely and completely, with each of the requirements set forth under Section GP-3.04.

Signed and sealed \_\_\_\_\_  
Date

**IN WITNESS WHEREOF**, the above-bounded parties have executed this instrument under their several seals on the date indicated above, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

In Presence of:

Individual Principal

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

as to: \_\_\_\_\_ (SEAL)

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Corporate Principal

In Presence of:

\_\_\_\_\_  
(Name of Corporation)

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

By: \_\_\_\_\_

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_ (SEAL)

Title: \_\_\_\_\_

Surety

\_\_\_\_\_  
(Name of Surety)

Business Address: \_\_\_\_\_

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

By: \_\_\_\_\_ Affix

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_ Corporate

Title: \_\_\_\_\_ Seal

**BALTIMORE COUNTY  
PREVAILING WAGE AND LOCAL HIRING**

**AFFIDAVIT**

**(Project Name)** \_\_\_\_\_

**Proposal No.:** \_\_\_\_\_

**Project No.:** \_\_\_\_\_

On behalf of \_\_\_\_\_, I do solemnly declare and affirm,  
(Contractor)  
under penalty of perjury, that to the best of my knowledge, information, and belief:

1. I have submitted all documentation in accordance with Baltimore County Code § 10-2- 506 and § 10-2-507 regarding the prevailing wage and local hiring laws and requirements of the prevailing wage guidelines located at ([Prevailing Wage and Local Hire Laws](#)), and acknowledge that I have read and agree to all provisions of said law, as amended, and have a continuing obligation to be compliant with the law and any changes to the law.

2. I shall not knowingly provide any false information relating to payroll documentation and/or hiring of local employees for capital improvement contracts that are subject to the prevailing wage and/or local hiring laws of Baltimore County. I further attest and certify that all documentation relating to the same will be accurate and complete and will remain accurate and complete on an ongoing basis, and will reflect the payroll and/or local hiring status of contractors, subcontractors, apprentices, and independent contractors performing work for the Contract (contract number \_\_\_\_\_). I acknowledge that I have been informed and am aware of the foregoing requirements and that I am authorized to make this certification on behalf of myself and all subcontractors and parties performing work pursuant to this Contract.

3. I certify and attest that I am an officer or agent of the Contractor or subcontractor who supervises the payment of employees. I understand and agree that all documentation related to prevailing wages and/or local hiring required by law shall be submitted to Baltimore County's Prevailing Wage Administrator or designee before any surety is released or final payment due under the terms of the Contract is made.

4. I further certify and attest that I will have personal knowledge of the wages paid to all employees of \_\_\_\_\_ for work performed on the Contract and of all of the hours worked, and that I am an authorized agent of the Contractor and assume responsibility for my actions.

5. I further certify and attest that \_\_\_\_\_ will comply with prevailing wage rates set by the State of Maryland as the same apply to the Contract and are a part of the bid documents and Contract, and that \_\_\_\_\_ will comply with applicable local hiring requirements.

6. I attest and certify that, if the Contract is subject to the local hiring requirement under §10-2-507 of the Baltimore County Code, \_\_\_\_\_ will make best efforts to ensure that residents of Baltimore County constitute at least 51% of the new hires made for the Contract, subject to all exceptions allowable by law.

7. I certify and attest that, if the Contract is subject to prevailing wage requirements, no rebates or deductions will be made, directly or indirectly, from any wages paid in connection with the Contract, other than those provided for by law.

8. I certify and attest that, if awarded the Contract and if the Contract is subject to prevailing wage law, I will submit certified payroll to the County through its electronic compliance system or as instructed by the Prevailing Wage and Local Hire Unit.

9. I certify that if awarded the Contract, I will provide a list of subcontractors who will participate as a beneficiary of this project to the agency and the Prevailing Wage and Local Hire Unit at [PrevailingWage@baltimorecountymd.gov](mailto:PrevailingWage@baltimorecountymd.gov).

10. I understand that no funds will be dispersed by the County until an Employment Analysis has been issued to the Prevailing Wage and Local Hire Unit in compliance with the local hire law. The Employment Analysis will include how many jobs will be required to complete the project; how many current employees are available to complete the project, and how many of those jobs will require new hires.

\_\_\_\_\_  
Contractor/Bidder/Offeror

\_\_\_\_\_  
By

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

\_\_\_\_\_  
Printed Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
Phone

\_\_\_\_\_  
License Number

\_\_\_\_\_  
Business Email

## **BALTIMORE COUNTY, MARYLAND**

### **Prevailing Wage and Local Hiring Contract Requirements and Policies**

The Contractor and all Subcontractors must comply with the Prevailing Wage and Local Hiring Laws, contained in Baltimore County Code § 10-2-506 and § 10-2-507, respectively, as amended. Prevailing wage means the wage rate paid by employers that is determined by a governmental authority, based upon a particular geographic area, for a given class of labor and type of project. The County will use the prevailing wage established by the State of Maryland (the "State") Department of Labor for state funded construction contracts in the County at the time of award. These rates include the basic hourly rate and fringe benefits. Apprentices must be paid at least the rate that the State's Apprenticeship and Training Council sets for an apprentice in the trade involved, based on a percentage of the prevailing wage rate in that trade. Any Contractor that is subject to the prevailing wage or local hiring law will be required to agree to the below provisions:

For the purposes of these requirements, an employee means an apprentice, laborer or mechanic employed by a contractor or subcontractor on a capital improvement project with a value of over \$300,000 or a County-subsidized capital project with a value over \$5,000,000.

Capital Improvement Project does not include blanket order or open-end agreements, capital improvement projects subject to a federal or state prevailing wage law, awarded without competition; with another governmental entity; to the extent the contractor is precluded from compliance by the terms of any federal or state law, contract or grant; entered into pursuant to Baltimore County Code § 10-2-310(e); entered into as a joint or cooperative purchase; or entered into as an emergency purchase.

The purpose of a prevailing wage is to ensure that contractors institute local hiring practices for Capital Improvement contracts and Capital Projects under certain circumstances as required by law, and that the Contractor's employees who work on capital improvement contracts are paid the going rate for their services. The prevailing wage rates are established by the State of Maryland Department of Labor and apply to all of the Contractor's employees and any and all Subcontractors. The Contractor and all Subcontractors must comply with all of the requirements of the Prevailing Wage Law including, but not limited to, the following:

1. Pay employees the prescribed rate as annually established by the State's Department of Labor; the prevailing wage rates in effect on the date a solicitation is issued and will apply throughout the term of a contract resulting from that solicitation. Contractor or subcontractors may NOT split or subdivide a capital improvement contract, pay an employee through a third party, treat an employee as a subcontractor or independent contractor to avoid any requirement of the County's prevailing wage law; or employ an individual classified as a helper or trainee to perform direct and measurable work on a capital improvement contract.

2. Pay employees at a rate equal to or more than the prevailing wage rate currently in effect for the type of work performed.

3. Pay employees overtime for work (I) more than eight hours in any single calendar day; (II) more than 40 hours in a work week; or (III) on a Sunday or a legal holiday.

4. Classify employees in their proper work classification in conformance with the schedule established by the State's Department of Labor.

5. May only make fair and reasonable deductions that are (a) required by law; (b) authorized in a written agreement between an employee and contractor or subcontractor signed at the beginning of employment (any deductions taken from employee paychecks including healthcare, pension, 401K, IRA, etc., child/spouse support, or tax levies); and submitted by the contractor or subcontractor to the Director of the County's Prevailing Wage Program; or required or allowed by a collective bargaining agreement between a bona fide labor organization and a contractor or subcontractor.

Electronically submit a certified copy of payroll records through the County's designated certified payroll and compliance system within 14 days after the end of payroll week ending date, to verify that Prevailing Wage rates have been paid to employees.

6. Backup documentation may be required upon demand from the County to be submitted for all 3<sup>rd</sup> party benefits being claimed, to include, but not limited to: *one month's healthcare transmittal showing employee name and amount company pays on their behalf, company vacation/sick policy, etc. or if Union, a Union transmittal for one month in which work has been performed.*

7. Retain records for a period of five (5) years after the work is completed and permit the Director of the County Prevailing Wage Program, or his/her designee, to inspect the payroll records at a reasonable time and as often as necessary.

8. Payroll records shall contain a statement signed by the contractor or subcontractor (including tiered subcontractors) certifying that the payroll records are complete and correct; the wage rates are not less than required by the Prevailing Wage Law; and the rate of pay and classification for each employee accurately reflects the work the employee performed.

9. All payroll records shall include the name, address, telephone number and email address of the contractor or subcontractor; the name and location of the job; and each employee's name, current address, unless previously reported; specific work classification; daily basic time and overtime hours; total basic time and overtime hours for the payroll period; rate of pay; fringe benefits by type and amount; and gross wages, and any deductions taken from employees' paychecks including, but not limited to, healthcare, pension/401K/IRA. Late submission of copies of any payroll records may be deemed deficient by the County until the required records are provided, and the County may postpone processing payments due under the Contract or under an agreement to finance the Contract.



10. Submit to random or regular audits and investigation of any complaint of a violation of the County's Prevailing Wage and Local Hiring Laws and requirements.
11. Make best efforts to fill at least 51% of new jobs required to complete the capital improvement contract or capital project with Baltimore County residents.
12. Submit monthly reports to the Director of the County's Prevailing Wage Unit relating to local hiring with respect to capital improvement contracts over \$300,00 or County-subsidized capital construction projects receiving assistance over \$5,000,000, that includes (a) the number of new hires needed for the contract or project, (b) the number of County residents hired during the reporting period, (c) the total number of all employees hired during the contract period, (d) best efforts made to fill open positions with County residents, and (e) 5) for new hires: name, last four (4) digits of the social security number, job title, hire date, address and referral source.
13. Agree that any and all disputes will be handled as set forth in the County's Prevailing Wage and Local Hire as a condition of award.
14. In the event the County determines that a provision of the Prevailing Wage and/or Local Hire Law has been violated, the County shall issue a written decision, including appropriate sanctions, and may withhold payment due the Contractor in an amount sufficient to pay each employee of the Contractor or any subcontractors the full amount of wages due under the Prevailing Wage Law, and an amount sufficient to satisfy a liability of the Contractor for liquidated damages as provided under the Prevailing Wage Law, pending a final decision on the violation by the County. The Contractor may appeal a written decision of the Director of the County's Prevailing Wage Unit that the Contractor violated a provision of the Prevailing Wage and/or Local Hire Law, to the Office of Administrative Hearings ("OAH"), within ten (10) working days after receiving a copy of the decision. OAH will conduct a hearing upon the receipt of a timely appeal. If no appeal, the decision of the Director of the County's Prevailing Wage Unit or his/her designee becomes final. A Contractor who is found to have violated the provisions of the Prevailing Wage or Local Hiring Laws intentionally, may not be awarded a County contract or work on any County project for a period of one year from the date of the OAH determination.
15. May not discharge, or otherwise retaliate against, an employee for asserting any right under the Prevailing Wage Law or for filing a complaint of a violation;
16. An aggrieved employee is a third-party beneficiary of the Contract and may by civil action recover the difference between the prevailing wage for the type of work performed and the amount actually received, with interest and a reasonable attorney's fee.
17. Each Contract subject to the Prevailing Wage and Local Hire Laws may specify the payment of liquidated damages to the County by the Contractor for any noncompliance with the Prevailing Wage and Local Law. Liquidated damages are:
  - a. \$10 for each calendar day that the payroll records are late (payrolls are to be submitted no later than 14 days after the week ending date shown on Certified Payroll Record CPR);
  - \$20 for each day that an employee is misclassified and/or paid less than the prevailing

wage rate; and a civil penalty of \$50 per violation of the requirement to post the prevailing wage rates at the work site.

- b. \$50 per month for each month the Local Hire report is not submitted by the last day of the existing month due.

These liquidated damages are solely related to prevailing wage and local hiring compliance and do not negate any other remedies available or set forth in the Contract, including delay damages or actual damages. These remedies are separate from, in addition to, and not in lieu of, any remedies available and set forth in the Contract, or at law, for other breaches or defaults under the Contract.

- 18. Where the initial Contract Sum is \$300,000 or below, but it is subsequently increased and exceeds \$300,000 due to an approved Contract Modification, the amount of any such Contract Modification that causes the Contract Sum to exceed \$300,000 is subject to the Prevailing Wage and Local Hiring Laws.
- 19. The Contractor and all subcontractors must post a clearly legible statement of each prevailing wage rate in a prominent and easily accessible place at the Work Site during the entire time Work is being performed, in English and any other language that is primarily spoken by the employees, at the Work Site.
- 20. A contract may include the actual cost of health and dental insurance, pension or retirement plan, paid time off such as vacation or sick days and life insurance. In calculating the cost per hour, divide the annual cost of benefits by 2,080 hours for each employee. Other benefits such as the use of a company vehicle, cell phones, lodging reimbursement, company owned tools **may not be credited towards the fringe benefit amount.**
- 21. All apprentices must be registered with the Maryland Apprenticeship and Training Council, V.A., or US DOL as well as be currently enrolled in, and attending appropriate classes, to which is considered “actively enrolled”. Only actively enrolled apprentices may be employed on the project at the apprentice prevailing wage rate.

Classification	Modification Reason	Basic Hourly Rate	Borrowed From	Fringe Benefit Payment
BRICKLAYER	CR	\$37.50	510	\$14.78
CARPENTER	CR	\$34.41		\$14.49
CARPENTER - SHORING SCAFFOLD BUILDER	CR	\$34.41		\$14.49
ELECTRICIAN	CR	\$47.00		\$20.17
IRONWORKER - REINFORCING	CR	\$30.70		\$23.91
IRONWORKER - STRUCTURAL	CR	\$36.50		\$21.86
LABORER - AIR TOOL OPERATOR	AD	\$26.12		\$7.40
LABORER - ASPHALT PAVER	AD	\$26.12		\$7.40
LABORER - ASPHALT RAKER	CR	\$18.80		\$3.23
LABORER - BLASTER - DYNAMITE	AD	\$26.12		\$7.40
LABORER - BURNER	AD	\$26.12		\$7.40
LABORER - COMMON	CR	\$18.80		\$3.23
LABORER - CONCRETE PUDDLER	CR	\$18.80		\$3.23
LABORER - CONCRETE SURFACER	AD	\$26.12		\$7.40
LABORER - CONCRETE TENDER	CR	\$18.80		\$3.23
LABORER - CONCRETE VIBRATOR	CR	\$18.80		\$3.23
LABORER - DENSITY GAUGE	CR	\$18.80		\$3.23
LABORER - FIREPROOFER - MIXER	CR	\$18.80		\$3.23
LABORER - FLAGGER	CR	\$18.80		\$3.23
LABORER - GRADE CHECKER	CR	\$18.80		\$3.23
LABORER - HAND ROLLER	CR	\$18.80		\$3.23
LABORER - HAZARDOUS MATERIAL HANDLER	AD	\$26.12		\$7.40
LABORER - JACKHAMMER	CR	\$18.80		\$3.23
LABORER - LANDSCAPING	CR	\$18.80		\$3.23
LABORER - LAYOUT	CR	\$18.80		\$3.23
LABORER - LUTEMAN	CR	\$18.80		\$3.23
LABORER - MASON TENDER	AD	\$26.12		\$7.40
LABORER - MORTAR MIXER	CR	\$18.80		\$3.23
LABORER - PIPELAYER	AD	\$26.12		\$7.40
LABORER - PLASTERER - HANDLER	CR	\$18.80		\$3.23
LABORER - SCAFFOLD BUILDER	AD	\$26.12		\$7.40
LABORER - TAMPER	CR	\$18.80		\$3.23
MILLWRIGHT	CR	\$38.61	025	\$17.21
PAINTER - BRIDGE	CR	\$44.18		\$16.08
POWER EQUIPMENT OPERATOR - BACKHOE	CR	\$33.00		\$13.55
POWER EQUIPMENT OPERATOR - BOOM TRUCK	CR	\$30.04	510	\$13.55
POWER EQUIPMENT OPERATOR - BROOM / SWEEPER	CR	\$30.04		\$13.55
POWER EQUIPMENT OPERATOR - BULLDOZER	CR	\$33.00		\$13.55
POWER EQUIPMENT OPERATOR - CONCRETE PUMP	CR	\$33.00		\$13.55
POWER EQUIPMENT OPERATOR - CRANE	CR	\$41.00		\$18.10
POWER EQUIPMENT OPERATOR - DRILL - RIG	CR	\$33.00		\$13.55
POWER EQUIPMENT OPERATOR - EXCAVATOR	CR	\$33.00		\$13.55
POWER EQUIPMENT OPERATOR - FORKLIFT	CR	\$30.04		\$13.55

**CONTRACT NUMBER:**  
**17031 SX0**

**BALTIMORE COUNTY PREVAILING WAGE RATES**  
**HIGHWAY CONSTRUCTION**

**6/13/2025**

POWER EQUIPMENT OPERATOR - GRADALL	CR	\$34.00		\$13.55
POWER EQUIPMENT OPERATOR - GRADER	CR	\$34.00		\$13.55
POWER EQUIPMENT OPERATOR - LOADER	CR	\$33.00		\$13.55
POWER EQUIPMENT OPERATOR - MECHANIC	CR	\$34.00		\$13.55
POWER EQUIPMENT OPERATOR - MILLING MACHINE	CR	\$32.10		\$13.55
POWER EQUIPMENT OPERATOR - PAVER	CR	\$33.15		\$13.55
POWER EQUIPMENT OPERATOR - ROLLER - ASPHALT	CR	\$32.10		\$13.55
POWER EQUIPMENT OPERATOR - ROLLER - EARTH	CR	\$30.04		\$13.55
POWER EQUIPMENT OPERATOR - SKID STEER (BOBCAT)	CR	\$30.04		\$13.55
POWER EQUIPMENT OPERATOR-VACUUM TRUCK	CR	\$37.50		\$14.85
STONE MASON	CR	\$44.30	510	\$21.22
TILE & TERRAZZO FINISHER	CR	\$28.09	510	\$12.59
TRUCK DRIVER - DUMP	CR	\$23.83		\$9.22
TRUCK DRIVER - LOWBOY	CR	\$29.68		\$10.51
TRUCK DRIVER - TACK/TAR TRUCK	CR	\$29.39		\$10.51
TRUCK DRIVER - WATER	CR	\$29.39	027	\$10.51

BALTIMORE COUNTY, MARYLAND  
USE OF MINORITY BUSINESS ENTERPRISES AND WOMEN'S BUSINESS ENTERPRISES  
IN  
COUNTY CONTRACTS  
MWBE Plan Package



Division of Diversity, Equity and Inclusion  
The Jefferson Building  
105 West Chesapeake Avenue  
Towson, Maryland 21204  
410-887-3407

[www.baltimorecountymd.gov/go/mwbe](http://www.baltimorecountymd.gov/go/mwbe)





## PROSPECTIVE BIDDERS/OFFERORS

Baltimore County Executive Order 2022-005 Use of Minority Business Enterprises and Women's Business Enterprises states:

### SECTION 6. BID REQUIREMENTS.

- (A)(1) All bidders shall submit a list of all subcontractors contacted in preparation of their bid package or proposal.  
(2) The list shall include the service to be performed, bid amount, and the race/ethnicity/gender of the business owner(s).  
(B)(1) All bidders shall submit a list of all subcontractors to be used on a county contract in the bid package.  
(2) This list shall include all subcontractors (both MWBE and non-MWBE) used, the service to be performed, the total amount to be paid, and the race/ethnicity/gender of the owner.

If the solicitation includes a MWBE **subcontracting** goal, you **MUST** demonstrate “**Good Faith**” **effort** either by:

1. Complete and sign FORM A, FORM B (to include FORM B-Prime if MWBE Prime wishes to count towards the goal) and FORM C **listing all subcontractors** with the initial bid submission.
  - a. *All Forms must be completed and signed. However, FORM C **MUST** be completed and signed by both the prime and the MWBE subcontractor.*
- OR**
2. If you are unable to meet any portion of the goal, you **MUST** do one of the following:
  - a. If you are requesting a **partial waiver**, complete and sign FORM A with initial bid submission. FORM B (to include FORM B-Prime if MWBE Prime wishes to count towards the goal) and FORM C (**listing all subcontractors**). In addition, complete, sign and submit FORM D and FORM E **accompanied with all supporting documentation** for the portion of the goal that will not be achieved as specified on FORM A.
  - b. If you are requesting a **full waiver**, complete and sign FORM A indicating your intent to request a full waiver **accompanied with a completed and signed FORM C listing all subcontractors**, FORM D and FORM E **accompanied with all supporting documentation**. **This MUST be submitted with the initial bid as specified on FORM A.**
  - c. *All Forms must be completed and signed. FORM C and FORM D **MUST** be completed and properly signed by **both the Prime AND the MWBE subcontractor(s)**.*

**NOTE:** The MWBE **subcontracting** goal applies to **ALL** prime/general contractors including certified and non-certified minority and women owned firms. **However, a Minority-owned or a Women-owned prime may self-perform up to 50% of MWBE subcontracting goal set in the solicitation. The MWBE primes that wish to count towards the goal must list themselves on all appropriate forms.**

12/2023

## **BALTIMORE COUNTY, MARYLAND**

### **MWBE PARTICIPATION SUMMARY**

**Executive Order:** Minority Business Enterprises and Women Business Enterprises (MWBE) shall have the maximum opportunity to participate in the performance of contracts financed in whole, or in certain circumstances, in part with County funds. Accordingly, on December 6, 2022, the County Executive adopted the EXECUTIVE ORDER No. 2022-005 addressing MWBE participation in County contracts. The December 6, 2022 Executive Order may be found on the Baltimore County website at [www.baltimorecountymd.gov/go/mwbe](http://www.baltimorecountymd.gov/go/mwbe).

**Each Contract:** The County shall establish a minimum MWBE participation amount for each contract, as applicable.

**Bidder/Offeror Responsibility:** The bidder/offeror shall ensure that MWBE participation occurs in accordance with the contract requirements and the County Executive's Executive Order. All bidder/offerors shall ensure that MWBE have the maximum opportunity to compete for and perform County contracts, as applicable. Baltimore County, Maryland, and/or its bidder/offerors and contractors shall not discriminate on the basis of race, color, national origin, disability or sex in the award and performance of any County contract.

**Mobilization Payments:** For subcontractors, project start-up costs can also be significant. A subcontractor that has limited resources and access to credit may find that start-up expenses inhibit its ability to bid County contracts. Under circumstances where mobilization payments are approved for the prime contractor, the subcontractor should be paid an amount equal to their participation percentage no later than five (5) business days before they are required to mobilize to perform the contracted work.

Mobilization costs represent pre-contract costs incurred by a contractor to prepare a job site before the actual commencement of the contract. These costs can include movement of personnel and equipment to the project site and for the establishment of the Contractor's offices, buildings, and other facilities necessary to begin work.

#### **APPROVED MWBE LISTINGS**

Published compilations of approved and certified MWBE, contractors, subcontractors, material suppliers, etc. include:

DIRECTORY OF MINORITY BUSINESS ENTERPRISE (MDOT):

**<https://marylandmdbe.mdbecert.com>**

MINORITY BUSINESS DIRECTORY OF THE CITY OF BALTIMORE:

**<https://baltimorecity.diversitycompliance.com>**

#### **BIDDER/OFFEROR'S ACTIONS**

##### **Seeking Firms:**

The bidder/offeror will seek commitments by subcontract or otherwise from MWBE firms for supplies and/or services, any combined value of which equals or exceeds the required percentage of MWBE participation goal for the County contract. However a MWBE Prime that affirms its MWBE status on the Minority and/or Women Prime Participation Affidavit may count up to 50% of the goal.

##### **Expenditures for Materials and Supplies:**

A bidder/offeror may count toward its MWBE contract requirements all expenditures for materials and supplies obtained from MWBE suppliers and manufacturers, provided that the MWBE firm is furnishing and installing the materials and is certified to perform these services. If the MWBE firm is only being used as a supplier, wholesaler and/or regular dealer or is not certified to install the supplies/materials, for purposes of achieving the MWBE participation goal, you may only count sixty percent (60%) of the value of the subcontract for these supplies/products (60% Rule). To apply the 60% Rule, first divide the amount of the subcontract for these supplies/products only (not installation) by the total Contract value. Then, multiply the result by sixty percent (60%) and insert the percentage in the Percent of Total Contract field of Form B Subcontractor Participation Schedule.

## **BALTIMORE COUNTY, MARYLAND** **MWBE PARTICIPATION SUMMARY**

Information to be supplied: All bidder/offers shall submit the following information to the County at the time of bid submission:

1. The name of an employee designated as the bidder/offers's liaison to the County's Minority Business Enterprise Office.
2. The following forms shall be completed and submitted:
  - Certified MWBE Utilization and Fair Solicitation Affidavit (**Form A**); from among those names appearing in the Approved MWBE Listings (excepting Federal Highway Administration projects, which exclusively require DBE approved and certified by the Maryland Department of Transportation MBE Advisory Committee);
  - A Subcontractor Participation Schedule (**Form B**) completed by the prime contractor for each MWBE listed on the Form.
  - A MWBE Prime Participation Schedule (Form B-Prime) completed by a MWBE prime contractor if the firm wishes to self-perform up to 50% of the MBE/WBE goal.
  - A MWBE Disclosure and Participation Statement (**Form C**) completed and signed by the prime contractor and MWBE firm for each MWBE listed on the Form. Form C **must match** what is stated on Form B.
  - If applicable, MWBE Subcontractor Unavailable Certificate (**Form D**) completed and signed by the prime contractor and MWBE for each MWBE listed on the Form.
3. If applicable, MWBE Outreach Efforts - Compliance Statement (**Form E**) completed and signed by the Bidder/Offers. The prime shall submit a list of all subcontractors.
4. For DPW contracts, if the bidder/offers intends to fulfill the MWBE requirements by use of a joint venture, he/she must submit a Joint Venture Disclosure Affidavit (**Form D-EEO-006-A** and **B**) showing the extent of MWBE participation. If a bidder/offers intends to use a MWBE joint venture as a subcontractor to meet its MWBE requirements, the affidavit must be submitted through the bidder/offers by the proposed subcontractors and signed by all parties.
5. If the bidder/offers's proposed MWBE participation does not meet the MWBE contract requirements, information sufficient to demonstrate that the bidder/offers has made every effort to meet the requirements must be submitted. (See DETERMINATION OF BID RESPONSIVENESS hereafter)

### **RECORDS AND REPORTS**

Returning Records: The bidder/offers must keep such records as are necessary to determine compliance with its MWBE utilization requirements:

1. The MWBE and non-minority contractors, type of work being performed, actual values of work and services.
2. Documentation of all correspondence, contacts, telephone calls, etc., to obtain MWBE services for the contract.
3. All prime contractors and MWBE sub-contractors are required to report monthly, by the 10th of each month, to the County through an online system called PRISM. If the contractor cannot submit his/her report on time, he/she will notify the County MWBE office and request additional time to submit the report. Failure of the contractor to report in a timely manner may result in a finding of noncompliance. The County in its sole discretion and/or upon written request may require additional reports regarding MWBE. In the event you are not able to enter your payments in PRISM, a spreadsheet is attached for your use. Please be sure to list the PO for each invoice/ payment reported and include in your submission any corresponding documentation (e.g. copies of invoices or cancelled checks).

Retaining Records: All MWBE records must be retained for 3 years following the expiration or any earlier termination of the contract and shall be available for inspection and photocopying by the County.

Investigation and Notification: Whenever the County believes the bidder/offers, contractor, or any subcontractor may not be operating in compliance with the MWBE requirements, the County may, in its sole discretion, conduct an investigation. If the County finds the bidder/offers, contractor, or any subcontractor is not in compliance with the MWBE requirements, the County may exercise any and all rights and remedies available to the County, under the contract, at law or equity, as deemed applicable and appropriate by the County in its sole discretion.

## **BALTIMORE COUNTY, MARYLAND** **MWBE PARTICIPATION SUMMARY**

### **DETERMINATION OF BID RESPONSIVENESS**

**Request for Deviation:** If the bidder/offeror is unable to procure from MWBE firms (by subcontract or otherwise), supplies and services, any combined value of which equals the required percentage of the total value of the contract, the bidder/ offeror may request, in writing, a deviation or waiver of the contract requirements. To obtain such a waiver, the bidder/ offeror must submit the following information at the time bids are due:

1. The request for waiver request shall include (1) a signed unavailability statement (Form D) executed by all MBEs and WBEs that the bidder/offeror solicited for participation and (2) Outreach Efforts/Compliance Statement (Form E) that demonstrates the bidder/offeror's good faith efforts to comply with the contract requirements, including copies of solicitation documentation to all potential subcontractors:
2. Emails, letters, facsimile transmittals and confirmations containing plans, specifications, and anticipated time schedule for portions of the work to be performed and meeting notes and agendas clearly identifying the certified MBE or WBE classification and dates that the bidder/offeror contacted each MWBE; and
3. Telephone logs containing names, addresses, dates, telephone numbers, work to be performed, anticipated time schedule and classification of certified MBEs and WBEs contacted.

**Bid Rejection:** The failure of any bidder/offeror (including the apparent low bidder/offeror) to provide a responsive MWBE Plan as required by the solicitation may result in the bidder/offeror being deemed non-responsive and the County's rejection of the bid.

**Liquidated Damages** If the County issues a notice of intent to awards contract to the apparent low bidder/offeror who provided a responsive MWBE Plan, but, if after said notice and before execution of Contract Documents, it is determined by the County that the apparent low bidder/offeror has failed to comply with the MWBE Plan, such failure may result in the recommendation by the appropriate Procurement Official to annul the award and forfeit the bidder/offeror's Proposal Guaranty to the County, not as a penalty, but as liquidated damages, it being acknowledged that actual damages will be difficult if not impossible to accurately measure. In addition, the County may proceed as it determines to be in its best interest, including but not limited to, the Notice of Award may be made to the next lowest responsive and responsible bidder/offeror or the work may be re-advertised.

**Contract Breach:** If, after execution of a County contract, the contractor becomes aware it may or will fail to fulfill the applicable MWBE requirements and/or may or will deviate from the contractor's bid response/contract terms, the contractor shall promptly advise the County of this in writing. Thereafter, the County will determine what action or remedy is appropriate on a case-by-case basis, in the County's sole discretion.

**Approval Required for Changes:** Any and all changes to the MWBE subcontractors or the type or amount of work to be performed by such subcontractors during the contract term must be mutually agreeable to the County and the contractor and shall be documented via a contract amendment, executed by legally authorized representatives of the County and the contractor.

**Cooperation in Reviews:** The bidder/offeror will cooperate with the County in any reviews of the contractor's procedures and practices with respect to MBE or WBE firms, which the County may from time to time conduct in its sole discretion.

**Other:** If the documents used to determine the contractor's efforts, achievement of, and/or the status of an MWBE requirement or fulfillment thereof contain false, misleading or misrepresented information, the contractor may be declared in breach of the contract and the County may take any and all actions and/or remedies available to the County under the contract, at law, or in equity. If an MWBE is disqualified by any public entity, including but not limited to, Baltimore City, the State or MDOT, at any time after award or during the term of the contract, the County may, in its sole discretion, require the prime contractor to promptly submit for County approval, the contractor's plans for fulfilling the required MWBE participation under the contract, and/or request such detail and additional information as the County, in its discretion deems appropriate.



**PRIME CONTRACTOR MINORITY AND WOMEN PARTICIPATION AFFIDAVIT**

**A. AUTHORIZED REPRESENTATIVE**

I HEREBY AFFIRM THAT:

I am the [title]\_\_\_\_\_ and the duly authorized representative of  
[business]\_\_\_\_\_  
\_\_\_\_\_ (the "Business") and that I possess the legal authority to make this  
Affidavit on behalf of myself and the Business for which I am acting.

**B. AFFIRMATION REGARDING MINORITY AND WOMEN PARTICIPATION**

I FURTHER AFFIRM THAT:

I am aware that, pursuant to the December 6, 2022 Executive Order of Baltimore County, Maryland, the following words have the meanings indicated.

(A) "Minority Business Enterprise" or "MBE" means a business enterprise that is owned, operated and controlled by one or more minority group members (African American, Hispanic American, Asian American, or Native American) who have at least 51% ownership and in which the minority group members have operational and managerial control, interest in capital and earnings commensurate with their percentage of ownership.

(B) "Women's Business Enterprise" or "WBE" means a business enterprise that is owned, operated and controlled by one or more women who have at least 51% ownership and in which the women have operational and managerial control, interest in capital and earnings commensurate with their percentage of ownership.

\_\_\_\_ The Prime is a MBE ☐ or WBE ☐

☐ Maryland State Department of Transportation (MDOT) # \_\_\_\_\_

☐ City of Baltimore # \_\_\_\_\_

☐ Name Other Jurisdiction: \_\_\_\_\_ # \_\_\_\_\_

☐ The ownership of the Noncertified MWBE business consists of \_\_\_\_\_ % minorities and \_\_\_\_\_ % women (for a total of \_\_\_\_\_ %), each of which has operational and managerial control, interest in capital and earnings commensurate with their percent ownership.

\_\_\_\_\_ % African American \_\_\_\_\_ % Hispanic American \_\_\_\_\_ % Women  
\_\_\_\_\_ % Asian American \_\_\_\_\_ % Native American \_\_\_\_\_ % Disadvantaged (DBE)

\_\_\_\_ The MWBE prime anticipates meeting up to 50% of the stated participation goal with its own workforce.

**MWBE primes percentage must be stated on the MWBE PRIME PARTICIPATION SCHEDULE (FORM B-PRIME) to count towards the goal.**

\_\_\_\_ The prime anticipates ☐ does not anticipate ☐ utilizing subcontractors for \_\_\_\_\_ % of the work of the contract requirements, of which it anticipates \_\_\_\_\_ % will be MBEs and \_\_\_\_\_ % will be WBEs.

I DO SOLEMNLY DECLARE AND AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE CONTENTS OF THIS AFFIDAVIT ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND BELIEF.

Date: \_\_\_\_\_

By: \_\_\_\_\_

(Authorized Representative and Affiant's Name and Title)



**BALTIMORE COUNTY, MARYLAND**  
**Certified MWBE Utilization and Fair Solicitation Affidavit**  
**(FORM A)**

*\*This document must be completed and submitted with Bid/Proposal to Baltimore County.*

**NOTE: If you do not complete and submit this form with your bid or offer to the County, the County may, in its sole discretion, deem your bid or offer NON-RESPONSIVE and accordingly the COUNTY WILL NOT CONSIDER YOU FOR CONTRACT AWARD.**

\* \* \* \* \*

I acknowledge the goal for solicitation #17031 SX0 is a minimum of **25%**. This goal must be met by any combination of the MWBE subcontractors. However, for instances where the Prime is counting up to 50% of the goal, the remaining goal balance must be met by any combination of the MWBE subcontractors.

- The goal breakdown is as follows: \_\_\_\_\_ is a minimum of \_\_\_\_%. This goal must be met by any
  - \_\_\_\_\_% Minority/Women Prime
  - \_\_\_\_\_% for certified MBE-owned businesses and/or
  - \_\_\_\_\_% for certified WBE-owned businesses.

**I have made a good-faith effort to achieve this MWBE solicitation requirement. If awarded the contract, I will comply with this MWBE contract requirement and will continue to use my best efforts to increase MWBE participation during the contract term.**

**PLEASE CHECK ONE BOX (EITHER 1, 2, OR 3)**

- 1 ☐ Prime has met the MWBE contract requirements for this solicitation and contract. I submit the Subcontractor Participation Form B and Form C, along with this Affidavit, which details how the Prime will achieve the contract requirements. Submit a complete list of all additional subcontractors

**Or**

- 2 ☐ After having made a good-faith effort to achieve the MWBE requirements, the Prime can only achieve partial success. I submit the Subcontractor Participation Form B, Form C, Form D and Form E along with this Affidavit, which details how the Prime will partially achieve the contract requirements. Submit a complete list of all additional subcontractors

I request a partial waiver and will meet the following MWBE participation goals:

- Partial waiver of MWBE subcontract participation:
  - \_\_\_\_\_% Minority/Women Prime
  - \_\_\_\_\_% for certified MBE-owned businesses and/or
  - \_\_\_\_\_% for certified WBE-owned businesses.

**Or**

- 3 ☐ After having made a good faith effort to achieve the MWBE requirements for this contract, the Prime is unable to achieve the requirements and/or sub requirements for this contract. I submit the MWBE Participation Form D and Form E, along with this Affidavit, which details the steps the Prime has taken in an attempt to achieve the contract requirements. Therefore, I request a full waiver.

**IF YOU HAVE CHECKED BOX 2 OR 3, THE FOLLOWING IS APPLICABLE:**

- 1) If a bidder is unable to comply with the goals established in a bid for a project, the bidder may submit a request for a waiver at the time of bid submission. However, occasions for granting waivers will be limited.

**BALTIMORE COUNTY, MARYLAND**  
**Certified MWBE Utilization and Fair Solicitation Affidavit**  
**(FORM A)**

- 2) The request for waiver shall include documentation that demonstrates the bidder's good faith efforts to comply with the goals, including:
- a. Signed unavailability statements from all MBEs and WBEs that the bidder solicited for participation; and
  - b. Copies of solicitation documentation to include the scope of services to be performed by the subcontractors accompanied with the following:
    - i. Emails, letters, facsimile transmittals and confirmations containing plans, specifications, and anticipated time schedule for portions of the work to be performed and meeting notes and agendas clearly identifying the certified MBE or WBE classification and dates that the bidder contacted each; and
    - ii. Telephone logs containing names, addresses, dates, telephone numbers, work to be performed, anticipated time schedule and classification of certified MBEs and WBEs contacted.
    - iii. Responses from MWBE firms contacted to fulfill the goal.

**As I have checked Box 2 or 3 of this Affidavit, I understand I must submit the following supporting documentation with the bid:**

- *Subcontractor Participation Schedule* (Form B)
- *MWBE Subcontractor Disclosure and Participation Statement* (Form C)
- *MWBE Subcontractors Unavailable Certificate* (Form D) (if applicable)
- *MWBE Outreach Efforts – Compliance Statement* (Form E) (if applicable)

I acknowledge that the MWBE subcontractors/suppliers listed on the *Subcontractor Participation Schedule* (Form B) will be used to accomplish the percentage of MWBE participation that the Prime shall achieve. A fully executed Form C must match Form B.

In the solicitation of subcontract quotations or offers, MWBE subcontractors were provided the same information and amount of time to respond, as were non-MWBE subcontractors.

The solicitation process was conducted in such a manner so as to not place MWBE subcontractors at a competitive disadvantage to non-MWBE subcontractors.

**I solemnly affirm under the penalties of perjury that this Affidavit is true to the best of my knowledge, information, and belief.**

\_\_\_\_\_  
Bidder/Offeror Name

\_\_\_\_\_  
Phone Number

\_\_\_\_\_  
Address

\_\_\_\_\_  
Affiant Signature

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

\_\_\_\_\_  
Printed Name & Title

\_\_\_\_\_  
E-mail address

\_\_\_\_\_  
Date

**BALTIMORE COUNTY, MARYLAND**  
**SUBCONTRACTOR PARTICIPATION**  
**SCHEDULE (FORM B)**

*\*This document must be completed and submitted with Bid/Proposal to  
 Baltimore County.*

*NOTE: If you do not complete and submit this form with your bid or offer to the County, the County may, in its sole discretion, deem your bid or offer NON-RESPONSIVE and accordingly the COUNTY WILL NOT CONSIDER YOU FOR CONTRACT AWARD.*

<b>Prime Name</b>  <b>Bid/Proposal Name and Number</b>  <b>1. Subcontractor Name and Tax ID</b>  <b>Telephone Number</b> _____ <b>Email Address</b> _____ Select One: <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> SBE <input type="checkbox"/> N/A Provide if Applicable: <input type="checkbox"/> MDOT <input type="checkbox"/> Baltimore City # _____	<b>Prime Address, Telephone Number and Email</b>  <b>Project Location</b>  <b>Base Bid</b> \$ _____ <b>Subcontractor Address</b>  <b>Minority Status (If applicable):</b> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> African American  <input type="checkbox"/> Asian American Pacific  <input type="checkbox"/> Asian American Sub-continent    <input type="checkbox"/> Supplier, Wholesaler and/or Regular Dealer - 60% Rule                         </div> <div> <input type="checkbox"/> Female  <input type="checkbox"/> Native American  <input type="checkbox"/> Hispanic American                         </div> </div>
<b>NAICS Code(s), Work to be Performed and Subcontract Dollar Amount</b>  <b>2. Subcontractor Name and Tax ID</b>  <b>Telephone Number</b> _____ <b>Email Address</b> _____ Select One: MBE <input type="checkbox"/> WBE <input type="checkbox"/> SBE <input type="checkbox"/> N/A <input type="checkbox"/> Provide if Applicable: <input type="checkbox"/> MDOT <input type="checkbox"/> Baltimore City # _____	<b>Percent of Total Contract (See instructions on Page 1 of the MWBE PARTICIPATION SUMMARY for 60% rule)</b> _____ %  <b>Subcontractor Address</b>  <b>Minority Status (If applicable):</b> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> African American  <input type="checkbox"/> Asian American Pacific  <input type="checkbox"/> Asian American Sub-continent    <input type="checkbox"/> Supplier, Wholesaler and/or Regular Dealer - 60% Rule                         </div> <div> <input type="checkbox"/> Female  <input type="checkbox"/> Native American  <input type="checkbox"/> Hispanic American                         </div> </div>
<b>NAICS Code(s), Work to be Performed and Subcontract Dollar Amount</b>  <b>3. Subcontractor Name and Tax ID</b>  <b>Telephone Number</b> _____ <b>Email Address</b> _____ Select One: MBE <input type="checkbox"/> WBE <input type="checkbox"/> SBE <input type="checkbox"/> N/A <input type="checkbox"/> Provide if Applicable: <input type="checkbox"/> MDOT <input type="checkbox"/> Baltimore City # _____	<b>Percent of Total Contract (See instructions on Page 1 of the MWBE PARTICIPATION SUMMARY for 60% rule)</b> _____ %  <b>Subcontractor Address</b>  <b>Minority Status (If applicable):</b> <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> African American  <input type="checkbox"/> Asian American Pacific  <input type="checkbox"/> Asian American Sub-continent    <input type="checkbox"/> Supplier, Wholesaler and/or Regular Dealer - 60% Rule                         </div> <div> <input type="checkbox"/> Female  <input type="checkbox"/> Native American  <input type="checkbox"/> Hispanic American                         </div> </div>
<b>NAICS Code(s), Work to be Performed and Subcontract Dollar Amount</b>  <b>Subcontractor Total Dollar Amount</b> \$ _____	<b>Percent of Total Contract (See instructions on Page 1 of the MWBE PARTICIPATION SUMMARY for 60% rule)</b> _____ %  <b>Total Subcontractor Percent of Entire Contract</b> _____ %
<b>Form Prepared by:</b> Name/Date: _____ Title: _____ Email: _____	<b>Reviewed and Accepted by Baltimore County Minority Business Enterprise Office</b> Name _____ Title _____ Date _____

MBE or WBE Prime Participation Total	_____ %	\$ _____	
MBE Subcontracting Participation Total	_____ %	\$ _____	
WBE Subcontracting Participation	_____ %	\$ _____	
Total MWBE Participation	_____ %	\$ _____	
Total SBE Participation	_____ %	\$ _____	

**BALTIMORE COUNTY, MARYLAND**

**MWBE PRIME PARTICIPATION SCHEDULE  
(Form B-Prime)**

**PLEASE COMPLETE AND SUBMIT THIS FORM TO ATTEST EACH SPECIFIC ITEM OF WORK THAT YOU AS THE MWBE PRIME FIRM WILL PERFORM USING ITS OWN WORKFORCE PERTAINING TO THE PERCENTAGE STATED ON THE SUBCONTRACTOR PARTICIPATION SCHEDULE (FORM B) FOR PURPOSES OF MEETING THE MWBE PARTICIPATION GOALS.**

*\*This document must be completed and submitted with Bid/Proposal to Baltimore County.*

**NOTE: If you do not complete and submit this form with your bid or offer to the County, the County may, in its sole discretion, deem your bid or offer NON-RESPONSIVE and accordingly the COUNTY WILL NOT CONSIDER YOU FOR CONTRACT AWARD.**

Provided that \_\_\_\_\_ (Prime Contractor's Name) with Certification Number \_\_\_\_\_ is awarded the County contract in conjunction with Solicitation No. \_\_\_\_\_, such MWBE Prime Contractor intends to count the distinct, clearly defined portion of the work of the contract that the MBE/WBE Prime Contractor performs with its own forces toward fulfilling **up to fifty-percent (50%) of the MWBE participation goal**, at least \$ \_\_\_\_\_ which equals to \_\_\_\_\_% of the Total Contract Amount for performing the following products/services for the Contract:

NAICS CODE	WORK ITEM, SPECIFICATION NUMBER, LINE ITEMS OR WORK CATEGORIES (IF APPLICABLE). FOR CONSTRUCTION PROJECTS, GENERAL CONDITIONS MUST BE LISTED SEPARATELY.	DESCRIPTION OF SPECIFIC PRODUCTS AND/OR SERVICES	VALUE OF THE WORK

**MWBE PRIME CONTRACTOR**

Signature of Representative: \_\_\_\_\_

Printed Name and Title: \_\_\_\_\_

Firm's Name: \_\_\_\_\_

Federal Identification Number: \_\_\_\_\_

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

Telephone: \_\_\_\_\_

Email Address: \_\_\_\_\_

Certified Yes No      No

Certifying Jurisdiction \_\_\_\_\_

Date: \_\_\_\_\_

**MWBE PRIME CONTRACTOR**

Minority Status:

☐ African American

☐ Hispanic American

☐ Women

☐ Asian American

☐ Native American

**Reviewed and Accepted by Baltimore County Minority Business Enterprise Office**

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

**BALTIMORE COUNTY, MARYLAND**  
**MWBE SUBCONTRACTOR DISCLOSURE AND PARTICIPATION STATEMENT**  
**(FORM C)**

*\*This document must be completed and submitted with Bid/Proposal to Baltimore County.*

**NOTE: If you do not complete and submit this form with your bid or offer to the County, the County may, in its sole discretion, deem your bid or offer NON-RESPONSIVE and accordingly the COUNTY WILL NOT CONSIDER YOU FOR CONTRACT AWARD.**

**NOTE: ANY INCONSISTENCY BETWEEN THIS FORM AND FORM B MWBE PARTICIPATION MAY  
RENDER A BID/PROPOSAL NON-RESPONSIVE AND THE COUNTY WILL NOT CONSIDER YOU FOR  
CONTRACT AWARD.**

Contract Name, Bid/Proposal Number: \_\_\_\_\_

Prime Contractor Name: \_\_\_\_\_

Name of MWBE Subcontractor: \_\_\_\_\_

Subcontractor Contact Name, Title \_\_\_\_\_

Subcontractor Email Address \_\_\_\_\_

☐ MDOT ☐ Baltimore City

\_\_\_\_\_ Certification Number

☐ MBE ☐ WBE ☐ SBE ☐ N/A

1. NAICS Code(s), Work/Services to be performed by MWBE Subcontractor: \_\_\_\_\_

**Percent of Total Contract (See instructions on Page 1 of the MWBE  
PARTICIPATION SUMMARY for 60% rule)**

2. Subcontract Amount: \$ \_\_\_\_\_ or \_\_\_\_\_ % of the County contract cost.

3. Bonds - Amount and type required of Subcontractor if any: \_\_\_\_\_

4. MWBE Anticipated Commencement Date: \_\_\_\_\_ Completion Date: \_\_\_\_\_  
Mobilization Cost Amount \$ \_\_\_\_\_

5. This is a MBE-Owned Business Firm: Yes \_\_\_\_\_ No \_\_\_\_\_

6. This is a WBE-Owned Business Firm: Yes \_\_\_\_\_ No \_\_\_\_\_

\*\*\*\*\*

NOTE: If the Prime is notified that it will be awarded the above referenced contract, the undersigned MWBE subcontractor and Prime must enter into a subcontract for the work/service indicated above upon the Prime's execution of a contract for the above referenced project with Baltimore County, and provide a copy of the fully executed MWBE SUBCONTRACTOR PARTICIPATION NOTICE OF INTENT TO AWARD (FORM C-Subcontractor) accompanied with the anticipated Work Breakdown Schedule (providing the subcontractor's mobilization timeframe) to [mwbe@baltimorecountymd.gov](mailto:mwbe@baltimorecountymd.gov) within 10 calendar days of receipt by the Prime of FORM C- Subcontractor from the County. The undersigned subcontractor is an MDOT or Baltimore City certified MWBE firm. The terms and conditions stated above are consistent with our agreements.

Signature of MWBE Subcontractor: \_\_\_\_\_ Date: \_\_\_\_\_

Prime's Printed Name and Title: \_\_\_\_\_ Email: \_\_\_\_\_

The terms and conditions stated above are consistent with our agreements.

Signature of Prime: \_\_\_\_\_ Date: \_\_\_\_\_



**BALTIMORE COUNTY, MARYLAND**  
**MWBE –UNAVAILABILITY CERTIFICATE**  
**(FORM D)**

***If applicable, this document must be completed and submitted with Bid/Proposal to Baltimore County.***

***NOTE: If you do not complete and submit this form with your bid or offer to the County, the County may, in its sole discretion, deem your bid or offer NON-RESPONSIVE and accordingly the COUNTY WILL NOT CONSIDER YOU FOR CONTRACT AWARD.***

1. It is hereby certified that the firm of \_\_\_\_\_  
(Name of Minority firm)

located at \_\_\_\_\_  
(Number) (Street)  
\_\_\_\_\_  
(City) (State) (Zip)

was offered an opportunity to bid on the \_\_\_\_\_ contract.

2. The \_\_\_\_\_ (MWBE Firm), is either unavailable for the work/service or unable to prepare a bid for this project for the following reason(s):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Signature of Subcontractor MWBE Representative

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

\_\_\_\_\_  
MDOT/Baltimore City Certification #

\_\_\_\_\_  
Email Address #

\_\_\_\_\_  
Telephone #

**3. PRIME'S SIGNATURE AND CERTIFICATION**

I certify under oath that I contacted the Certified MWBE and they advised me that they are unavailable, unable to perform the work/services for the above-contract or failed to respond to repeated requests for a price proposal for the above-contract.

\_\_\_\_\_  
Signature of Prime

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

**BALTIMORE COUNTY, MARYLAND**  
**MWBE - OUTREACH EFFORTS - COMPLIANCE STATEMENT**  
**(FORM E)**

***\*This document must be completed and submitted with Bid/Proposal to Baltimore County.***

***NOTE: If you do not complete and submit this form with your bid or offer to the County, the County may, in its sole discretion, deem your bid or offer NON-RESPONSIVE and accordingly the COUNTY WILL NOT CONSIDER YOU FOR CONTRACT AWARD.***

In conjunction with the bid or offer submitted in response to Solicitation Number \_\_\_\_\_, I state the following:

1. Bidder/Offeror identified opportunities to subcontract in these specific work categories:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
2. Attached to this form are copies of the solicitation documentation in accordance with Section 6 (E) Bid Requirements of the Executive Order, used to solicit certified MWBEs for the subcontract opportunities accompanied with the signed MWBE Subcontractor Unavailability Certificate (Form D).  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
3. Bidder/Offeror made the following attempts to solicit MWBEs:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
Signature – Bidder Offeror

\_\_\_\_\_  
Print or Type Name of Firm

\_\_\_\_\_  
Street Address

\_\_\_\_\_  
City                      State      Zip Code

\_\_\_\_\_  
Date



**JOHN A. OLSZEWSKI, JR.**  
*County Executive*

**SEVETRA PEOPLES-BROWN**  
*Executive Director*  
*Chief of Diversity, Equity and Inclusion*

To: Contractors/Consultants

From: Minority and Women Business Enterprise Office

Date: December 13, 2024

Subject: Compliance Reporting and Penalties

Baltimore County, Maryland (the "County") requires all Prime Contractors and all Subcontractors to submit payment reports by the 10th of each month through an online MWBE Compliance Portal (PRISM). The Portal can be found under Compliance Reporting for Primes and Subcontractors at [www.baltimorecountymd.gov/go/mwbe](http://www.baltimorecountymd.gov/go/mwbe). In the event you are not able to enter your payments in PRISM, a spreadsheet is attached for your use. Please be sure to list the PO for each invoice/ payment reported and include in your submission any corresponding documentation (e.g. copies of invoices or canceled checks).

The County has found that a number of companies are failing to file reports in a timely manner, which makes it difficult for the County to verify compliance. As a result, the County has determined to assess penalties for non-compliance, effective September 1, 2018, as follows:

- (a) For failure to file timely monthly reports:
  - a. Assessment of a late fee of \$10 per day per task, up to a maximum of \$1,500 per task; and/or
  - b. For multiple violations, termination of the contract for convenience or for default, with the contractor suspended from participating in County contracts for five (5) years.
- (b) For failure to meet MWBE requirements:
  - a. Assessment of a penalty of up to 10% of the contract value; and/or
  - b. Termination of the contract for convenience, with the contractor suspended from participating in County contracts for five (5) years together with assessment of a penalty of up to 10% of the contract value; and/or
  - c. Termination of the contract for default together with assessment of a penalty of 10% of the contract value.

Each action and/or remedy described above is at the sole discretion of the County, and is in addition to any damages which the County may be entitled to under the contract. This short video can be used as guidance on submitting the Prime to Subcontractor Payment Reporting:

[http://stage.prismcompliance.com/etc/movies/vendor\\_contractpayment\\_tutorial.htm](http://stage.prismcompliance.com/etc/movies/vendor_contractpayment_tutorial.htm)

If after contract expiration, it has been determined the MWBE firms named were not used or were under used, by the contractor and supporting documentation was not provided and approved by the County the contractor may be assessed a penalty of up to 10% of the contract value and/or suspended from participating in County contracts for 5 years.

Questions regarding this correspondence and/or the use of this system can be directed to the MWBE Office at [mwbe@baltimorecountymd.gov](mailto:mwbe@baltimorecountymd.gov) or call (410) 887-3407.

Attachment:     MWBE Payment Report Form  
                  MWBE Payment Acknowledgement Form

Cc: File

## **S E C T I O N V**

### **POST AWARD DOCUMENTS**

**This Section to be Completed  
by Successful Bidder after Award**



C O N T R A C T   A G R E E M E N T

THIS CONTRACT AGREEMENT ("Contract"), IS MADE THIS \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, by and between Baltimore County, Maryland, a body corporate and politic ("County"), and \_\_\_\_\_, ("Contractor").

WITNESSETH, that the Contractor, for and in consideration of the payment or payments herein specified and agreed to by the County, hereby covenants and agrees to furnish and deliver all the materials and to do and perform all the work, services, and labor in fulfillment of the requirements of Contract Number **17031 SX0** "Project") in strict conformity with the solicitation, plans, specifications, special provisions, any and all addenda, and the proposal, at the prices named therein, and all of which are collectively the Proposal, and said Proposal is attached hereto and made a part thereof.

The Project shall be done in strict compliance with (i) the Proposal, (ii) the Baltimore County Department of Public Works and Transportation September 2023 "Standard Specifications for Construction and Materials" and "Standard Details for Construction" (iii) and any and all revisions thereto as of the date of advertisement, including but not limited to the General Conditions Building Projects, as applicable, and all of which (i-iii) are made a part hereof and incorporated herein (collectively, the "Specifications"). Contractor understands and agrees it is Contractor's responsibility and obligation to obtain a copy of the "Specifications" and agrees the Specifications are incorporated herein. Copies are available on the County's website at [www.baltimorecountymd.gov/departments/public-works/standards](http://www.baltimorecountymd.gov/departments/public-works/standards).

The Project shall be subject to the inspection and approval of the Director of Public Works and Transportation for Baltimore County, or his authorized representative, and in the event any portion thereof shall be rejected by said Director or his representative as defective or unsuitable, then the said portion shall be removed and replaced and be performed anew to the satisfaction and approval of the said Director or his representative at the cost and expense of the Contractor.

THE CONTRACTOR AFFIRMS that it is aware of, and will comply with, the provisions of Sections 14-101 through 14-108 of the Election Law Article of the Annotated Code of Maryland, as the same may be amended from time to time, which require that every person who makes, during any 12-month period, one or more contracts, with one or more Maryland governmental entities involving cumulative consideration, of at least \$200,000.00, to file with the State Board of Elections certain specified information to include disclosure of attributable political contributions in excess of \$500 during defined reporting periods.

THE CONTRACTOR FURTHER COVENANTS AND AGREES that all the Project shall be furnished, performed and delivered, in every respect, to the satisfaction and approval of the Director of Public Works and Transportation, aforesaid, on or before the expiration of **THREE HUNDRED SIXTY FIVE (365) CALENDAR DAYS** (the "Contract Period") after written notice has been given by the Director or their authorized representative to begin the work.

IT IS AGREED THAT TIME IS OF THE ESSENCE. In the event the Contractor fails to achieve Final Completion and Final Acceptance of the Contract work within the Contract Period specified herein, plus any extensions thereto agreed to in writing by a legally authorized representative of the County pursuant to the terms of this Contract, then Contractor shall pay the County the sum of **TWO THOUSAND DOLLARS (\$2,000.00) FOR EACH CALENDAR DAY (DAY 1 THROUGH 30) AFTER THE EXPIRATION OF THE CONTRACT PERIOD AND THREE THOUSAND FIVE HUNDRED DOLLARS (\$3,500.00) FOR EACH CALENDAR DAY (DAY 31 THROUGH 60) AFTER THE EXPIRATION OF THE CONTRACT PERIOD AND SIX THOUSAND FIVE HUNDRED DOLLARS (\$6,500.00) FOR EACH CALENDAR DAY (DAY 61 AND THEREAFTER)**, until the Contractor achieves Final Completion and Final Acceptance of the Project.

\_\_\_\_\_  
Contractor's Initials

\_\_\_\_\_  
Date

Rev. 09/2024

IT IS FURTHER AGREED that:

- (a) These Liquidated Damages are a reasonable estimate of the County's damages solely due to the public's loss of use of the Project during the delay period and is not a penalty.
- (b) It is very difficult, if not impossible, to accurately measure the damages to the County due to the public's loss of use of the Project during the delay period.
- (c) Notwithstanding GP 8.09 of the Baltimore County Standard Specification for Construction, in addition to the damages due to the public's loss of use of the Project during the delay period, the County is likely to incur additional direct costs during the delay period, including but not limited to, costs for construction management, consultants, architectural services, office trailer and supplies, utilities, County employees' time, County vehicles, and such other costs that the County will incur to continue administration of the construction and the Contract during the delay period, all of which will be monitored by the County, and if so required by the County, the Contractor shall pay such actual damages incurred during the delay period. THE PARTIES HERETO UNDERSTAND AND AGREE THAT CONTRACTOR'S OBLIGATION TO PAY THE COUNTY FOR ACTUAL DAMAGES DURING THE DELAY PERIOD SHALL BE IN ADDITION TO THE CONTRACTOR'S OBLIGATION TO PAY THE LIQUIDATED DAMAGES DUE TO THE PUBLIC'S LOSS OF USE OF THE PROJECT.
- (d) The County shall have the right, but not the obligation, to deduct the Liquidated Damages due to the public's loss of use of the Project, and the County's actual costs and costs to continue administration of the construction and the Contract, from any monies due or any monies that may become due to the Contractor.

IT IS DISTINCTLY UNDERSTOOD AND AGREED that no claim for extra work, material or overhead not specifically provided for in the Contract will be allowed by the County, nor shall the Contractor do any work or furnish any materials not covered by this Contract and the Specifications, unless the same is ordered in writing by a legally authorized representative of the Department of Public Works and Transportation in accordance with the terms of the Contract. Any such work or materials which may be done or furnished by the Contractor without any such written order first being given shall be at said Contractor's sole risk, cost and expense and Contractor hereby covenants and agrees that without such written order, Contractor shall make no claim for compensation for work, materials, or overhead so done or furnished.

NOTWITHSTANDING GP 4.06 OF THE BALTIMORE COUNTY STANDARD SPECIFICATIONS FOR CONSTRUCTION, IT IS SPECIFICALLY AGREED that the Contractor shall have no entitlement to damages arising out of delay, disruption, interference or hindrance from any cause whatsoever. However, this provision shall not preclude recovery or damages by the Contractor for hindrances or delays due solely to fraud or gross negligence on the part of the County or its agents.

IT IS FURTHER DISTINCTLY AGREED that the said Contractor shall not assign this Contract, nor any part thereof, nor any right to any of the monies to be paid hereunder, nor shall any part of the work to be done or material furnished under said Contract be sublet without the prior written consent of a legally authorized representative of the Department of Public Works and Transportation in accordance with the terms of this Contract. Further, the acceptance of the final payment by the Contractor shall effectuate a release in full of all claims against County and its officials, employees, representatives, and agents arising out of, or by reason of the Project and this Contract.

The Contractor shall review government issued identification and badge all employees of the Contractor and its subcontractors. The Contractor shall also review all federal forms, including but not limited to I-9's, for compliance as well as copies of all employment eligibility and identity documentation maintained to the extent required by law.

The Bonds, given by the Contractor in a sum equal to the total contract price of the Project in compliance with the terms and provisions of this Contract, are hereby attached and incorporated herein.

IT IS AGREED that in the event that the County is delayed or prevented from timely execution of this Contract, the Contractor releases County and agrees Contractor shall have no action, claim or demand against County therefore.

**Contractor's Initials**

**Date**

Rev. 09/2024

THE CONTRACTOR HEREBY FURTHER AGREES to receive the prices set forth in the Proposal incorporated herein as full compensation for the completion of the Project and, in all respects, to complete said Contract to the satisfaction of the County.

**THE CONTRACTOR REPRESENTS AND WARRANTS:**

- (i) it is duly formed and validly existing under the laws of the State of \_\_\_\_\_;
- (ii) it is in good standing in the State of Maryland;
- (iii) it has the power and authority to consummate the obligations and responsibilities contemplated hereby, and has taken all necessary action to authorize the execution, delivery and performance required under this Contract;
- (iv) the Contractor and the person executing this Contract for the Contractor each warrant that he/she is duly authorized by the Contractor to execute and seal this Contract on the Contractor's behalf;
- (v) the warranties of merchantability and fitness for a particular purpose and use and warranties of title and against infringement, and all express warranties contained in this Contract, including but not limited to the Proposal (and any sample or model presented by Contractor and expressly accepted by the County) shall apply to the portion of this Contract pertaining to or for goods;
- (vi) all representations and warranties made in the Proposal and herein remain true and correct in all respects when made, as of the date of this Contract, and throughout the term of this Contract; and
- (vii) there exists no actual or potential conflict of interest between its performance under this Contract and its engagement or involvement in any other personal or professional activities and in the event such conflict or potential conflict arises during the term of this Contract, the Contractor shall immediately advise the County in writing thereof.

THE CONTRACTOR shall not disclose any documentation and information of any kind or nature disclosed to the Contractor in the course of its performance of duties hereunder without the express prior written consent of the County.

Those sections in this Contract which by their nature are intended to survive, including but not limited to, Contractor's representations and warranties, confidential information, and indemnification shall survive the termination of this Contract.

IN WITNESS WHEREOF, the Contractor has hereunto set its hand and seal the day and year first above written.

**CONTRACTOR NAME:** \_\_\_\_\_

WITNESS FEDERAL TAX ID or SS #: \_\_\_\_\_

\_\_\_\_\_  
By: \_\_\_\_\_ (Seal)

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

Type (Print) Name

Title: \_\_\_\_\_ Date: \_\_\_\_\_

WITNESS: **BALTIMORE COUNTY, MARYLAND**

\_\_\_\_\_  
Executive Secretary By: \_\_\_\_\_ Date: \_\_\_\_\_  
D'Andrea L. Walker, County Administrative Officer

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

APPROVED FOR FORM AND LEGAL  
AND SUFFICIENCY\* (Subject to  
execution by the duly authorized  
Administrative official and Chairperson  
of the County Council, as indicated).

APPROVED:

\_\_\_\_\_  
Lauren T. Buckler, Director  
Department of Public Works & Transportation Date: \_\_\_\_\_

\_\_\_\_\_  
Office of the County Attorney

\*Approval of Form and Legal Sufficiency does not convey approval or disapproval of the substantive nature of this transaction. Approval is based upon typeset documents. All modifications require re-approval.

Rev. 09/2024

**PERFORMANCE BOND**

Bond No. \_\_\_\_\_

<hr/>	
<b>Principal</b>	<b>Business Address of Principal</b>
<hr/>	
<b>Surety</b>	<b>Obligee: BALTIMORE COUNTY, MARYLAND</b> A body corporate and politic
<b>A Corporation of the State of _____ and authorized to do business in Maryland</b>	
<hr/>	
<b>Penal Sum of Bond (express in words and figures)</b>	
<b><u>Herring Run Sewershed Structural Sewer Rehabilitation – Phase II</u></b>	
<b>Contract Name</b>	<b>Date of Contract</b>
<b>17031 SX0</b>	<b>20 _____</b>
<b>Contract Number</b>	<b>Date Bond Executed</b>
	<b>20 _____</b>

**KNOW ALL MEN BY THESE PRESENTS**, that we, the PRINCIPAL, above-named, and SURETY, above-named, and authorized to do business in the State of Maryland, are held and firmly bound unto the OBLIGEE, above-named, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS, THE PRINCIPAL** entered into a certain contract with the OBLIGEE described and dated as shown above and is required to provide this bond pursuant to Maryland State law and/or County law and the contract.

**NOW, THEREFORE**, if the aforesaid PRINCIPAL shall well and truly perform and fulfill all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term of said contract and any extensions thereof that may be granted by the OBLIGEE with or without notice to the SURETY, and during the life of any guaranty required under the contract, and shall also well and truly perform and fulfill all the undertakings covenants, terms, conditions and agreements of any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the SURETY being hereby waived, then, this obligation to be void; otherwise to remain in full force and effect.

**THE SURETY FURTHER GUARANTEES** That it is (a) licensed in the State of Maryland, (b) rated "B" or better by the A.M. Best Company, (c) on federal funded projects, authorized by the underwriting limitation contained in the U.S. Department of the Treasury Circular 570, as amended, to guaranty the amount of the Bid, and (d) in good standing as determined by the County's Engineer. A Performance Bond is required for each and every Contract in excess of twenty-five thousand (\$25,000). A Performance Bond shall be in the amount equal to at least one hundred (100%) percent of the Contract price. The fully executed Performance Bond shall be delivered by the Bidder to the Department's Division of Construction Contracts Administration no later than the time the Contract is to be executed by the Contractor.

**IN WITNESS WHEREOF**, the above-bounded parties have executed this instrument under their several seals on the date indicated above, the name and seal of each party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

<hr/>	
<b>In Presence of:</b>	<b>Individual Principal</b>
<b>Witness:</b> _____	<b>as to:</b> _____ (SEAL)
<b>Print Name:</b> _____	<b>Print Name:</b> _____
<hr/>	
<b>Attest:</b>	<b>Corporate Principal</b>
	_____ (Name of Corporation)
<b>Witness:</b> _____	<b>By:</b> _____ Affix
<b>Print Name:</b> _____	<b>Print Name:</b> _____ Corporate
	<b>Title:</b> _____ Seal
<hr/>	
<b>Attest:</b>	<b>Surety</b>
	_____ (Name of Surety)
<b>Business Address:</b> _____	
<b>Witness:</b> _____	<b>By:</b> _____ Affix
<b>Print Name:</b> _____	<b>Print Name:</b> _____ Corporate
	<b>Title:</b> _____ Seal

Reviewed for Baltimore County Requirements

\_\_\_\_\_  
Office of the County Attorney

**PAYMENT BOND**

Bond Number \_\_\_\_\_

Principal \_\_\_\_\_

Business Address of Principal \_\_\_\_\_

Surety \_\_\_\_\_

Obligee: **BALTIMORE COUNTY, MARYLAND**  
A body corporate and politic

A Corporation of the State of \_\_\_\_\_ and authorized to do business in Maryland

DOLLARS \$ \_\_\_\_\_

Penal Sum of Bond (express in words and figures) \_\_\_\_\_

**Herring Run Sewershed Structural Sewer Rehabilitation – Phase II**  
Contract Name

\_\_\_\_\_ 20 \_\_\_\_\_  
Date of Contract

**17031 SX0**  
Contract Number

\_\_\_\_\_ 20 \_\_\_\_\_  
Date Bond Executed

**KNOW ALL MEN BY THESE PRESENTS**, that we, the PRINCIPAL, above-named, and SURETY, above-named, and authorized to do business in the State of Maryland, are held and firmly bound unto the OBLIGEE, above-named, in the penal sum of the amount stated above, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

**WHEREAS, THE PRINCIPAL** entered into a certain contract with the OBLIGEE described and dated as shown above and is required to provide this bond pursuant to Maryland State law and/or County Law and the contract.

**NOW, THEREFORE**, the condition of this obligation is such that if the aforesaid PRINCIPAL shall promptly make payments to all persons supplying labor and/or material to the PRINCIPAL and to any subcontractor of the PRINCIPAL in the prosecution of the work provided for in said contract and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to the SURETY being hereby waived, then, this obligation to be void; otherwise to remain in full force and effect.

**THE SURETY FURTHER GUARANTEES** That it is (a) licensed in the State of Maryland, (b) rated "B" or better by the A.M. Best Company, (c) on federal funded projects, authorized by the underwriting limitation contained in the U.S. Department of the Treasury Circular 570, as amended, to guaranty the amount of the Bid, and (d) in good standing as determined by the County's Engineer. A Payment Bond is required for each and every Contract in excess of twenty-five thousand (\$25,000). A Payment Bond shall be in the amount equal to at least one hundred (100%) percent of the Contract price. The fully executed Payment Bond shall be delivered by the Bidder to the Department's Division of Construction Contracts Administration no later than the time the Contract is to be executed by the Contractor.

**IN WITNESS WHEREOF**, the above-bounded parties have executed this instrument under their several seals on the date indicated above, the name and seal of each party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

In Presence of:

Individual Principal

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

as to: \_\_\_\_\_ (SEAL)

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_

Attest:

Corporate Principal

\_\_\_\_\_  
(Name of Corporation)

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

By: \_\_\_\_\_ Affix

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_ Corporate

Title: \_\_\_\_\_ Seal

Attest:

Surety

\_\_\_\_\_  
(Name of Surety)

Business Address: \_\_\_\_\_

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

By: \_\_\_\_\_ Affix

Print Name: \_\_\_\_\_

Print Name: \_\_\_\_\_ Corporate

Title: \_\_\_\_\_ Seal

Reviewed for Baltimore County Requirements

\_\_\_\_\_  
Office of the County Attorney





## BALTIMORE COUNTY, MARYLAND

### INSURANCE PROVISIONS

#### 1. GENERAL REQUIREMENTS

- 1.1 Coverages Required:  
Unless otherwise required by the specifications or the contract, the Contractor/Vendor shall purchase and maintain the insurance coverage's listed herein.
- 1.2 Certificate of Insurance:  
Before starting work on the contract, or prior to the execution of the Contract on those bid, the Contractor/Vendor shall provide Baltimore County, Maryland with verification of insurance coverage evidencing the required coverages.
- 1.3 Baltimore County as Insured:  
The coverage required, excluding Workers' Compensation and Employers' Liability and Medical Malpractice Liability/Professional Liability/Errors and Omissions Liability, must include Baltimore County, Maryland and its agents, employees, officers, directors, and appointed and elected officials as an additional insured.
- 1.4 Contractor's/Vendor's Responsibility:  
The providing of any insurance herein does not relieve the Contractor/Vendor of any of the responsibilities or obligations the Contractor/Vendor has assumed in the contract or for which the Contractor/Vendor may be liable by law or otherwise.
- 1.5 Failure to Provide Insurance:  
Failure to provide and continue in force the required insurance shall be deemed a material breach of the contract. The Contractor/Vendor must maintain the insurance coverages required under the terms and conditions on this Contract while this Contract is in effect including renewal and extension terms.

#### 2. INSURANCE COVERAGES

- 2.1 General Liability Insurance
- 2.1.1 Minimum Limits of Coverage:  
Personal Injury Liability and Property Damage Liability Combined Single Limit - \$500,000 each occurrence.
- 2.1.2 Such insurance shall protect the Contractor/Vendor from claims which may arise out of, or result from, the Contractor's/Vendor's operations under the contract, whether such operations be by the Contractor/Vendor, any subcontractor, anyone directly or indirectly employed by the Contractor/Vendor or Subcontractor, or anyone for whose acts any of the above may be liable.
- 2.1.3 Minimum Coverages to be Included:  
(a) Independent Contractor's coverage;  
(b) Completed Operations and Products Liability coverage;  
(c) Contractual Liability coverage.

- 2.1.4 Damages not to be Excluded:  
Such insurance shall contain no exclusions applying to operations by the Contractor/Vendor or any Subcontractor in the performance of the Contract including but not limited to:  
(a) Collapse of, or structural injury to, any building or structure;  
(b) Damage to underground property; or  
(c) Damage arising out of blasting or explosion.

#### 2.2 Automobile Liability Insurance

- 2.2.1 Minimum Limits of Coverage:  
Bodily Injury Liability and Property Damage Liability  
Combined Single Limit - \$500,000 any one accident.
- 2.2.2 Minimum Coverages to be Included:  
Such insurance shall provide coverage for all owned, non-owned and hired automobiles.

#### 2.3 Workers' Compensation and Employers' Liability Insurance

Such insurance must contain statutory coverage, including  
Employers' Liability insurance with limits of at least:  
Bodily Injury by Accident - \$250,000 each accident  
Bodily Injury by Disease - \$500,000 policy limit  
Bodily Injury by Disease - \$250,000 each employee

#### 2.4 Valuable Papers and Records Coverage and Electronic Data Processing (Data and Media) Coverage

Minimum Limits of Coverage:  
\$100,000 Per Claim and Each Occurrence  
\$100,000 in the Aggregate

#### 2.5 Other

Such other insurance in form and amount as may be customary for the type of business being under taken by the Contractor/Vendor.

#### 2.6 Additional Insurance required:

2024 Utility Permit requires MDOT SHA as additional insurer see **Pages 257-294.**