

CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT

**For Calendar Year: 2023 MTSA' Chester Creek Interceptor
(Formerly SWDCMA)**

- Permittee is owner and/or operator of a POTW or other sewage treatment facility
 Permittee is owner and/or operator of a collection system tributary to a POTW not owned/operated by permittee

| GENERAL INFORMATION | | | |
|---|--|-------------------|--|
| Permittee Name: | Upper Providence Township Sewer Authority | Permit No.: | PA |
| Mailing Address: | 935 North Providence Road | Effective Date: | n/a |
| City, State, Zip: | Media, Pa 19063 | Expiration Date: | n/a |
| Contact Person: | James P. Kelly, P.E. | Renewal Due Date: | n/a |
| Title: | Borough Engineer | Municipality: | Upper Providence Township |
| Phone: | 610-358-9363 | County: | Delaware County |
| Email: | jpkelly@kellyengineers.com | Consultant Name: | Kelly Engineers & Surveyors |
| CHAPTER 94 REPORT COMPONENTS | | | |
| <p>1. Attach to this report a line graph depicting the monthly average flows (expressed in MGD) for each month for the past 5 years and projecting the flows for the next 5 years. The graph must also include a line depicting the hydraulic design capacity per the WQM permit. (<u>25 Pa. Code § 94.12(a)(1)</u>)</p> <p>Check the appropriate boxes:</p> <p><input type="checkbox"/> Line graph for flows attached (Attachment) <input type="checkbox"/> DEP Chapter 94 Spreadsheet used (Attachment) <input checked="" type="checkbox"/> Section 1 is not applicable (report is for a collection system).</p> | | | |
| <p>2. Attach to this report a line graph depicting the monthly average organic loads (express as lbs BOD5/day) for each month for the past 5 years and projecting the organic loads for the next 5 years. The graph must also include a line depicting the organic design capacity of the treatment plant per the WQM permit. (<u>25 Pa. Code § 94.12(a)(2)</u>)</p> <p>Check the appropriate boxes:</p> <p><input type="checkbox"/> Line graph for organic loads attached (Attachment) <input type="checkbox"/> DEP Chapter 94 Spreadsheet used (Attachment) <input checked="" type="checkbox"/> Section 2 is not applicable (report is for a collection system).</p> | | | |

3. If the DEP Chapter 94 Spreadsheet was not used to determine projections, discuss the basis for the hydraulic and organic projections. In all cases, include a description of the time needed to expand the plant to meet the load projections, if necessary, and data used to support the projections should be included in an appendix to this report. (25 Pa. Code § 94.12(a)(3))

N/A

4. Attach a map showing all sewer extensions constructed within the past calendar year, sewer extensions approved or exempted in the past year in accordance with Act 537 and Chapter 71, but not yet constructed, and all known proposed projects which require public sewers but are in the preliminary planning stages. The map must be accompanied by a list summarizing each extension or project and the population to be served by the extension or project. If a sewer extension approval or proposed project includes schedules describing how the project will be completed over time, the listing should include that information and the effect this build-out-rate will have on populations served. (25 Pa. Code § 94.12(a)(4))

Check the appropriate boxes:

- Map showing sewer extensions constructed, approved/exempted but not yet constructed, and proposed projects attached (Attachment)
- List summarizing each extension or project attached (Attachment)
- Schedules describing how each project will be completed over time and effects attached (Attachment)

Comments:

All of the Rose Hill, Puzzleface properties and 500 Manchester Avenue have obtained permits and are now connected to public sewer. Please see Attachment "A" for the recently completed Rose Hill and Puzzleface property as well as 500 Manchester Avenue. Overall, the projected flows from Upper Providence Township are expected to remain consistent with flows from the previous 5 years. Currently, there are 225 residential EDU's connected to the service area.

5. Discuss the permittee's program for sewer system monitoring, maintenance, repair and rehabilitation, including routine and special activities, personnel and equipment used, sampling frequency, quality assurance, data analyses, infiltration/inflow monitoring, and, where applicable, maintenance and control of combined sewer regulators during the past year. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(5))

In an effort to maintain the system and diagnose sewer conditions, the Sewer Authority has implemented a 4 year program of television inspection and cleaning. The scope of work for the 2020-2023 UPTSA Sanitary Sewer Maintenance, Emergency Service and Cleaning Contract is attached in Attachment "B." It is anticipated that flow meter monitoring in conjunction with the inspection and cleaning program will more accurately pinpoint any problem areas within the collection system.

6. Discuss the condition of the sewer system including portions of the system where conveyance capacity is being exceeded or will be exceeded in the next 5 years and portions where rehabilitation or cleaning is needed or is underway to maintain the integrity of the system and prevent or eliminate bypassing, CSOs, SSOs, excessive infiltration and other system problems. Attach a separate sheet if necessary. (25 Pa. Code § 94.12(a)(6))

Check the appropriate boxes:

- System experienced capacity-related bypassing, SSOs or surcharging during the report year. On a separate sheet, list the date, location, and reason for each bypass, SSO or surcharge event.
 System did not experience capacity-related bypassing, SSOs or surcharging during the report year.

Comments:

Within the system tributary to MTSA Chester Creek Interceptor, there is no apparent gravity main, low pressure sanitary sewer main or pump station which currently exceeds capacity and no sanitary system overflows within the UPTSA system were reported in 2023. The Authority has taken measures to maintain the integrity of the system and reduce inflow and infiltration problems by implementing the sewer cleaning program contract. In addition, the Authority is planning to institute a service lateral inspection/rehabilitation program designed to eliminate potential sources of I&I such as failing laterals and illegal connections. Private sewer laterals would be inspected at the time of sale and corrected prior to the transfer of the property.

7. Attach a discussion on the condition of sewage pumping (pump) stations. Include a comparison of the maximum pumping rate with present maximum flows and the projected 2-year maximum flows for each station. (25 Pa. Code § 94.12(a)(7))

Check the appropriate boxes:

- The collection system does not contain pump stations
 The collection system does contain pump stations (Number)
 Discussion of condition of each pump station attached (Attachment)

8. If the sewage collection system receives industrial wastes (i.e., non-sanitary wastes), attach a report with the information listed below. (25 Pa. Code § 94.12(a)(8)) **N/A**

- a. A copy of any ordinance or regulation governing industrial waste discharges to the sewer system or a copy of amendments adopted since the initial submission of the ordinance or regulation under Chapter 94, if it has not previously been submitted.
- b. A discussion of the permittee's or municipality's program for surveillance and monitoring of industrial waste discharges into the sewer system during the past year.
- c. A discussion of specific problems in the sewer system or at the plant, known or suspected to be caused by industrial waste discharges and a summary of the steps being taken to alleviate or eliminate the problems. The discussion shall include a list of industries known to be discharging wastes which create problems in the plant or in the sewer system and action taken to eliminate the problem or prevent its recurrence. The report may describe pollution prevention techniques in the summary of steps taken to alleviate current problems caused by industrial waste dischargers and in actions taken to eliminate or prevent potential or recurring problems caused by industrial waste dischargers.

Check the appropriate boxes:

- Industrial waste report as described in 8 a., b. and c. attached (Attachment)
 Industrial pretreatment report as required in an NPDES permit attached (Attachment)

9. Existing or Projected Overload. N/A

Check the appropriate boxes:

- This report demonstrates an existing hydraulic overload condition.
- This report demonstrates a projected hydraulic overload condition.
- This report demonstrates an existing organic overload condition.
- This report demonstrates a projected organic overload condition.

If one or more boxes above have been checked, attach a Corrective Action Plan (CAP) to reduce or eliminate present or projected overloaded conditions under §§ 94.21 and/or 94.22 (relating to existing overload and projected overload). (25 Pa. Code § 94.12(a)(9))

- Corrective Action Plan attached (Attachment)

10. Where required by the NPDES permit, attach a Sewage Sludge Management inventory that demonstrates a mass balance of solids coming in and leaving the facility over the previous calendar year. N/A

- Sewage Sludge Management Inventory attached (Attachment)

11. For facilities with CSOs and where required by the NPDES permit, attach an Annual CSO Report (including satellite combined sewer systems). N/A

- Annual CSO Report attached (Attachment)

12. For POTWs, attach a calibration report documenting that flow measuring, indicating and recording equipment has been calibrated annually. (25 Pa. Code § 94.13(b)) N/A

- Flow calibration report attached (Attachment)

RESPONSIBLE OFFICIAL CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly 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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

Kevin Matson, P.E. Operation Manager

Name of Responsible Official

610-566-5376

Telephone No.

Signature

Date

PREPARER CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared by me or otherwise under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. The information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowledge of violations. See 18 Pa. C.S. § 4904 (relating to unsworn falsification).

James P. Kelly, P.E., Authority Engineer

Name of Preparer

610-358-9363

Telephone No.



Signature

2/23/2024

Date



CHAPTER 94 MUNICIPAL WASTELOAD MANAGEMENT ANNUAL REPORT INSTRUCTIONS

This form has been developed to promote consistency in the development of annual municipal wasteload management reports ("Chapter 94 reports") required by 25 Pa. Code § 94.12. At least two copies of the complete report must be submitted to the appropriate regional office of the Department of Environmental Protection (DEP) by March 31.

Enter the calendar year that the report covers at the top of the form. Check the appropriate box to indicate whether the permittee is the owner/operator of a publicly owned treatment works (POTW) or other sewage treatment facility, or is the owner/operator of a sewage collection system that is tributary to a POTW owned/operated by a different entity.

General Information

Record the name of the permittee, the permittee's full mailing address, the permittee's contact person and this person's title, phone number and email address. Also record the permit number (NPDES or WQM), the effective date of permit coverage, the expiration date of permit coverage (if applicable), the date by which an application or NOI is due for reissuance (renewal) (if applicable), the municipality and county where the sewage treatment facility or collection system is located, and the name of the consultant (company name), if any, who assisted in the preparation of the form.

Chapter 94 Report Components

This section requests responses to 12 questions that, if applicable, must be addressed for a complete Chapter 94 report. Questions 1 – 9 and 12 come directly from the Chapter 94 regulations, i.e., 25 Pa. Code §§ 94.12(a)(1) – 94.12(a)(9) and 94.13(b). Some questions request that you check an appropriate box, attach the information requested, and specify the attachment number, while responses to other questions may be entered directly on the form.

For Questions 1 and 2, permittees may use DEP's Chapter 94 Spreadsheet to satisfy 25 Pa. Code §§ 94.12(a)(1) and 94.12(a)(2), respectively. DEP encourages use of the Chapter 94 Spreadsheet to provide consistency in the format and calculations associated with hydraulic and organic load evaluations (see www.depweb.state.pa.us/chapter94). If the Chapter 94 Spreadsheet was used, check the appropriate box(es) and attach printouts of the data and graphs to the Chapter 94 report. If this report is being used for a collection system only, these graphs are not needed.

For Question 6, if the permittee checks the box that there were capacity-related bypasses or SSOs during the report year, in general the box for existing hydraulic overload in Question 9 should be checked. If the permittee checks the box in Question 6 because surcharging occurred during the report year, in general the box for projected hydraulic overload in Question 9 should be checked.

For Question 8, if the permittee has an EPA-approved pretreatment program, attachment of an annual pretreatment report as required in an NPDES permit will satisfy the requirement for an industrial waste report.

For Question 10, if a permit requires a "Sewage Sludge Management" inventory, check the appropriate box if the inventory is attached to the Chapter 94 report.

For Question 11, if an NPDES permit (individual permit or, for satellite collection systems, PAG-06 General NPDES permit coverage) requires an Annual CSO (Status) report, attach the CSO report to the Chapter 94 report and check the appropriate box.

Certification

In accordance with 25 Pa. Code § 94.12(a), both the individual who prepared the report and (a responsible official) of the permittee must sign the report. The term "responsible official" for a municipality is a principal executive officer or ranking elected official.

Questions on the completion of Chapter 94 reports may be directed to DEP's Bureau of Point and Non-Point Source Management at (717) 787-8184 or to the appropriate DEP regional office (contact information available by visiting DEP's website, www.depweb.state.pa.us, and selecting Regional Resources).

**Chapter 94
Municipal Wasteload Management
Annual Report**

**Chapter 94 Annual Report – Year 2023
MTSA Chester Creek Interceptor
(formerly Southwest Delaware County Municipal Authority)**

**For
Upper Providence Township Sewer Authority
Delaware County
935 North Providence Road
Media, PA 19063
(610) 566-5376**

Prepared by:



**Kelly Engineers & Surveyors
30 LaCrue Ave, Suite 201
Glen Mills, PA 19342
Ph: 610-358-9363
Fax: 610-358-9376**

February 2023

Prepared for:

**Upper Providence Township Sewer Authority
935 North Providence Road
Media, PA 19063**



**James P. Kelly, P.E.
Kelly Engineers & Surveyors**

TABLE OF CONTENTS

| <u>TOPIC</u> | <u>PAGE</u> |
|---|-------------|
| Introduction..... | 3 |
| Hydraulic and Organic Loadings..... | 3 |
| 5-Year Hydraulic and Organic Loading Projections..... | 4 |
| Sewer Extensions..... | 4 |
| Program for Sanitary Sewer Monitoring, Maintenance, and Repair..... | 5 |
| Condition of the Sewer System..... | 6 |
| Sewage Pumping Stations..... | 8 |
| Industrial Wastes..... | 9 |
| Corrective Action Plan..... | 11 |
| Calibration Reports..... | 11 |
| Tributary Municipality Reports..... | 11 |

ATTACHMENTS LIST

- A. Flow Area Map
- B. 2020-2023 Sanitary Sewer Cleaning and Pump Station Maintenance Contract (Excerpt)
- C. UPTSA Pump Station Data (Tributary to MTSA Chester Creek Interceptor)

REPORT REQUIREMENTS

1. INTRODUCTION

This section should give a brief description of the sewer service area covered by the report. List all tributary municipalities that send sewage to the Wastewater Treatment Facility (WWTF), and list those portions of the service area that are owned/operated by other permittees.

Discuss the age of the WWTF and a general description of the wastewater treatment process. If available, a process diagram could be included in an appendix to the report.

BACKGROUND

The following Chapter 94-Municipal Wasteload Management 2023 Annual Report has been prepared for the Upper Providence Township Sewer Authority. The purpose of the report is to serve as an addendum to the Chapter 94 Report prepared for the formerly Southwest Delaware County Municipal Authority. Flows from UPTSA stopped being tributary to SWDCMA once the Middletown Township Sewer Authority 'MTSA' Chester Creek Interceptor connected directly to the DELCORA CRC pump station in 2018.

Upper Providence Township is currently serviced by three wastewater treatment plants. This report will focus solely on the flow to the MTSA Chester Creek Interceptor connected directly to the DELCORA CRC pump station.

2. HYDRAULIC AND ORGANIC LOADINGS

Provide a line graph depicting the monthly average flows (in MGD) for each month for the past 5 years and projecting the flows for the next 5 years. The graph should include a line depicting the hydraulic design flow of the plant included in the Water Quality Management Part II Permit.

Provide a line graph depicting the monthly average organic loadings in pounds per day (lbs/day) BOD₅, for each month for the past 5 years and projecting the monthly average organic loading for the next 5 years. The graph should also include a line depicting the organic loading design (expressed in lbs/day) of the plant included in the Water Quality Management Part II Permit.

List the permitted capacities of your WWTF:

UPTSA Response: *This section is non-applicable for Upper Providence Township. As stated above, the sewer flows from Upper Providence Township into either the Media WWTP, C.D.C.A WWTP or the MTSAs Chester Creek Interceptor connected directly to the DELCORA CRC pump station*

3. 5-YEAR HYDRAULIC AND ORGANIC LOADING PROJECTIONS

This section should provide a description of the basis for the hydraulic and organic loading 5-year projections, including the data and calculations that were used to determine them. Your projections should include the following elements:

UPTSA Response: *N/A - No WWTP's are owned or operated by Upper Providence Township.*

4. SEWER EXTENSIONS

This section should provide the following information:

- a. *A map showing all sewer extensions constructed within the past calendar year;*
- b. *A map showing sewer extensions approved or exempted in the past year in accordance with the PA Sewage Facilities Act (35 P.S. §§ 750.1—750.20) and Chapter 71 (relating to administration of the sewage facilities program), but not yet constructed;*
- c. *A map showing all known proposed projects which require public sewers but are in the preliminary planning stages.*
- d. *A list summarizing each extension or project.*
- e. *If a sewer extension approval or proposed project includes schedules for completing the project over time, the list should describe the projects projected build-out over time.*

This section should clearly indicate whether or not each of the above requirements is applicable for the report's calendar year. For example, if no sewer extensions were constructed in the past calendar year, clearly indicate this in the report.

UPTSA Response: *The attached map includes projects which have been recently completed. Overall, the projected flows from Upper Providence Township are expected to remain consistent with flows from the previous 5 years.*

- *Currently, there 225 residential EDU's connected to the service area.*

- *A house located at 14 Rosehill Road was the last house connected to public sewer in 2022.*
- *All of the Rose Hill, Puzzleface and 500 Manchester Properties have obtained permits and have been connected. We are not aware of any future properties that are proposed to connect in the future.*

5. PROGRAM FOR SANITARY SEWER MONITORING, MAINTENANCE, AND REPAIR

This section should include a detailed discussion of the permittee's program for sewer system:

- a. Monitoring;
- b. Maintenance;
- c. Repair;
- d. Rehabilitation;
- e. Routine and special activities;
- f. Personnel and equipment used;
- g. Sampling frequency;
- h. Quality assurance;
- i. Data analyses;
- j. Infiltration/inflow (I/I) monitoring;
- k. Maintenance and control of combined sewer regulators during the past year, where applicable.

Provide a detailed description of actual work conducted during the calendar year for each of the items noted above, including the findings of those efforts and any proposed follow-up work and/or investigations for the subsequent year.

Where flow monitoring has been conducted, provide an analysis of the flow-meter data. Have portions of the system shown evidence of I/I? What work is currently being conducted or proposed, to address excess flows?

UPTSA Response: *In an effort to maintain the system and diagnose sewer conditions, the Sewer Authority has implemented a 4-year program of television inspection and cleaning. The scope of work for the 2020-2023 UPTSA Sanitary Sewer Maintenance, Emergency Service and Cleaning Contract is attached in Attachment "B." It is anticipated that flow meter monitoring in conjunction with the inspection and cleaning program will more accurately pinpoint any problem areas within the collection system.*

6. CONDITION OF THE SEWER SYSTEM

This section requires a discussion of the condition of the sewer system, including portions where conveyance capacity is exceeded or will be exceeded in the next 5 years. It should include a discussion of those portions of the system where rehabilitation or cleaning is needed or underway to maintain the integrity of the system and prevent or eliminate:

- a. Bypassing;*
- b. Combined sewer overflows;*
- c. Sanitary sewer overflows;*
- d. Excessive infiltration;*
- e. Other system problems.*

Include a discussion of available existing and future capacity. The discussion should include the following:

- f. The age of the sewer system.*
- g. The type of material of which the system is made (i.e., brick, vitrified clay, PVC, Orangeburg, etc.).*
- h. An analysis that determines whether the existing sewer lines are sized properly for the connected population.*
- i. A discussion of any portions of the system that should be repaired, replaced or rehabilitated, including a timeframe by which any proposed actions are expected to be completed.*

Discuss any portions of the sewer system in which surcharging occurs:

- j. How often does the system surcharge in each location?*
- k. What size storm events create surcharging sewer lines?*
- l. What is the cause of the surcharging?*
- m. Sewer systems that surcharge during wet weather indicate a lack of hydraulic capacity and are considered to be in a projected hydraulic overload. For such conditions, permittees should submit a CAP and CMP with the annual report, as required by 25 Pa. Code § 94.22.*

Provide a list of all SSOs that occurred during the calendar year, including their cause and location (a copy of the Southeast Regional Office's SSO Report Form submitted by the permittee is acceptable). SSOs related to wet weather should be discussed:

- n. Explain if there is a history of SSOs at each reported location. If a trend of SSOs at specific locations during rain events is documented, this indicates a lack of hydraulic capacity and is considered a hydraulic overload condition.*
- o. Why are SSOs occurring at each location? Has a hydraulic analysis been conducted, and if so, what were the results and recommendations for corrective action?*
- p. Provide an analysis of flow metering that has been conducted.*

- q. Sewer systems that experience SSOs are considered to be in an existing hydraulic overload. A CAP and CMP should be submitted with the annual report, as required by 25 Pa Code § 94.21.

The Department strongly recommends that existing capacity be documented with flow meter data. Whether flow meters are already in place, or are proposed to be used throughout the system to gather flow data on sub-basin approach – existing capacity should be documented with data that describes actual flow conditions during dry-weather and wet weather conditions:

- r. Dry weather flows should be monitored to document baseline flows and for comparison purposes, to determine the extent of I/I within the collection and conveyance system.
- s. Wet weather capacity should be determined by documenting the peak instantaneous (or peak hourly) flow rate as compared to the hydraulic carrying capacity of the sanitary sewer (i.e., Manning's equation).

UPTSA Response:

Within the system tributary to the MTSA Chester Creek Interceptor, there is no apparent gravity main, low pressure sanitary sewer main or pump station which currently exceeds capacity and no sanitary system overflows within the UPTSA system tributary to Southwest were reported in 2023.

The Authority has taken measures to maintain the integrity of the system and reduce inflow and infiltration problems by implementing the sewer cleaning program contract.

In addition, the Authority is planning to institute a service lateral inspection/rehabilitation program designed to eliminate potential sources of I/I such as failing laterals and illegal connections. Private sewer laterals would be inspected at the time of sale and corrected prior to the transfer of the property.

7. SEWAGE PUMPING STATIONS

If applicable, this section should provide a discussion of the condition of sewage pump stations, including a comparison of the maximum pump rate with present maximum flows and the projected 2-year maximum flows for each station:

- a. “Maximum pump rate” is the permitted hydraulic design capacity of the station, which excludes the capacity of the backup pump.

b. “Present maximum flows” should be represented with the actual peak instantaneous or peak hourly flow rates for each pump station. Maximum daily flows are average, not maximum, flow figures and do not provide the appropriate data to determine the flow entering or exiting a pump station during periods of high flow. Average daily flow data, although valuable for determining existing average flows for sewage planning purposes, does not indicate whether sufficient capacity exists during high flow conditions.

If peak instantaneous flow data is not available for each pump station, provide documentation that the pump station can handle peak instantaneous flows with one pump out of service. While the backup pump should be operated to ensure that it is operable, the lead pump(s) at each pump station should be capable of handling peak instantaneous flows without use of the backup pump. The capacity of the backup pump is not considered part of the design capacity of a pump station, so the backup pump should not be coming online in conjunction with the lead pump(s) during wet weather.

Pump station data should be provided as recommended in Table 8 below. A clear explanation of what each set of data represents is essential (Example: If “peak instantaneous” flows are reported, but the data is actually a maximum daily flow, this must be clearly indicated. Provide a reason why peak instantaneous data was not reported.):

Table 8
Pump Stations

| Pump Station Name | Number of Pumps | Permitted Capacities | | Present Flows | | Projected Flows |
|-------------------|-----------------|-----------------------------|---|----------------------------|--|-----------------|
| | | AA Permitted Capacity (gpd) | Hydraulic Design Capacity (excluding capacity of backup pump) (gpm) | Annual Average Flows (gpd) | Peak Instantaneous (or Hourly) Peak Flow (gpm) | |
| PS No. Bortondale | 4 | 144,000 | 300 | 58,537.50 | 201 | 63,787.50 |
| Letitia | 2 | 4,320 | 9 | 1,575 | 5 | 4,320 |

UPTSA Response:

Please see an updated copy of Table 8 in “Attachment C”.

The Upper Providence Township Sewer Authority currently contracts with an outside firm to maintain all pump stations within the Township. The firm employs a PA Certified Wastewater Treatment Plant Operator and is responsible for all pump station maintenance, as well as any emergency issues affecting the pump stations or tributary system. The 2020-2023 Sanitary Sewer Maintenance, Emergency Service and Cleaning Contract is attached in Appendix "B" and the UPTSA Pump Station Data that is tributary to Southwest is attached in Appendix "C."

8. INDUSTRIAL WASTES

If applicable, the report on industrial wastes (IW) should include:

- a. A copy of an ordinance or regulation governing IW.

UPTSA Response:

Upper Providence Township has no ordinance regarding Industrial flow.

- b. A discussion of the permittee's program for surveillance and monitoring of IW discharges to the sewer system during the past year.

UPTSA Response:

There are no known industrial wastes discharged into the Upper Providence Township sanitary system. In addition, the Upper Providence Township Sewer Authority has recently completed the fourth year of a four-year sanitary sewer cleaning contract in which no evidence of industrial wastes were reported.

- c. A discussion of specific problems in the sewer system or at the WWTF, known or suspected to be caused by IW discharges and a summary of steps being taken to alleviate or eliminate the problems.

UPTSA Response:

Currently there are no known problems with Industrial wastes within the Upper Providence owned system or pumping

stations, therefore no measures have been taken to alleviate or eliminate industrial waste.

- d. *A list of any such industries known to be discharging wastes that create a problem and actions taken to prevent potential or recurring problems caused by the IW dischargers.*

UPTSA Response:

Currently there are no known problems with Industrial wastes within the Upper Providence owned system or pumping stations, therefore no measures have been taken to alleviate or eliminate industrial waste.

- e. *Provide documentation regarding any actions taken against IW dischargers.*

UPTSA Response: *This section is non-applicable to the UPTSA.*

9. CORRECTIVE ACTION PLAN

If an existing or projected overload condition has been identified at the WWTF or in a portion of the collection and conveyance system owned by any permittee within the WWTF's sewer service area, the respective permittee should provide a CAP and CMP in the Chapter 94 Report to address the overload condition as required under 25 Pa Code §§ 94.21 and 94.22. The attached CAP and CMP development guidelines should be referenced for preparation of these documents.

UPTSA Response: *This section is non-applicable to the UPTSA.*

10. CALIBRATION REPORTS

As required by 25 Pa Code § 94.13, flow measuring, indicating, and recording equipment should be calibrated annually, and the calibration report should be included in the annual report submitted under § 94.12 (relating to annual report).

Any such equipment at the WWTF and/or within the collection and conveyance system should be calibrated (at a minimum) at this frequency. Calibration reports for each permittee's system should be included in the respective annual reports.

UPTSA Response: *This section is non-applicable to the UPTSA.*

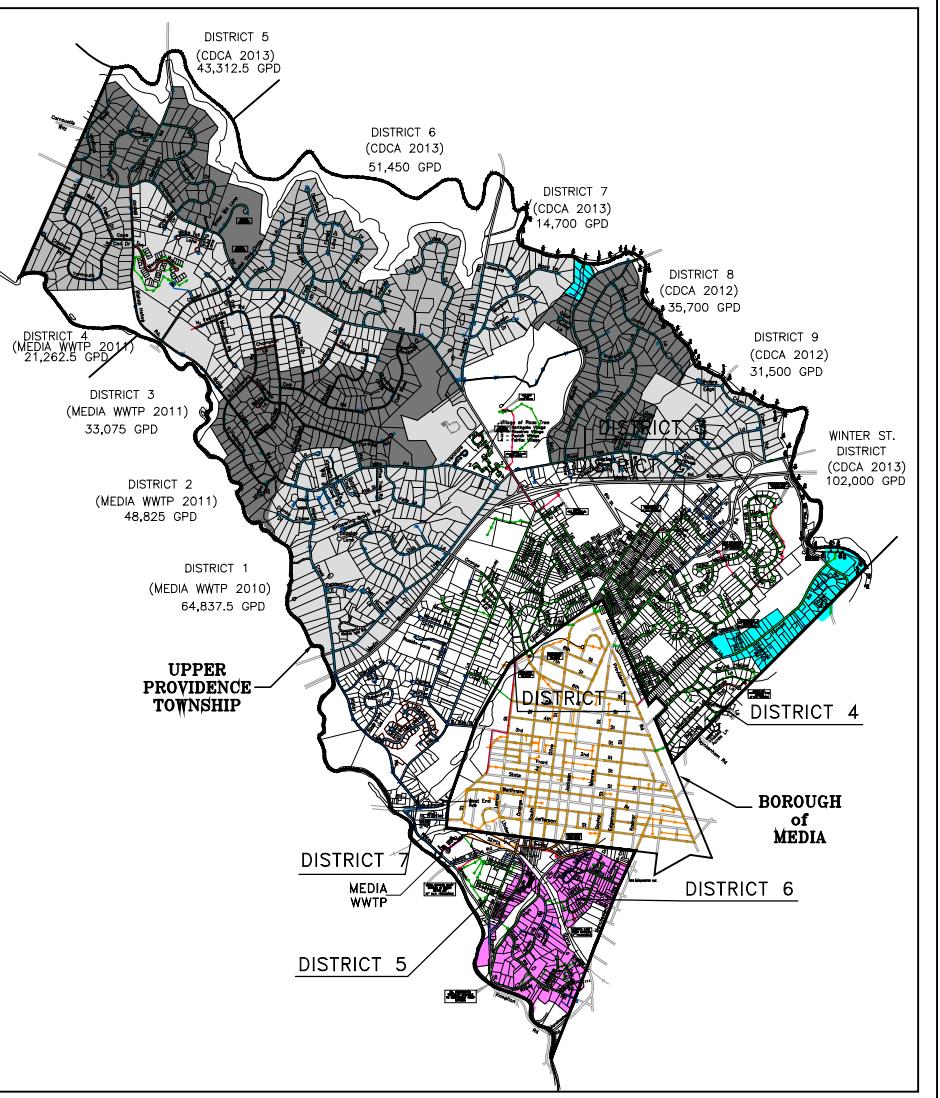
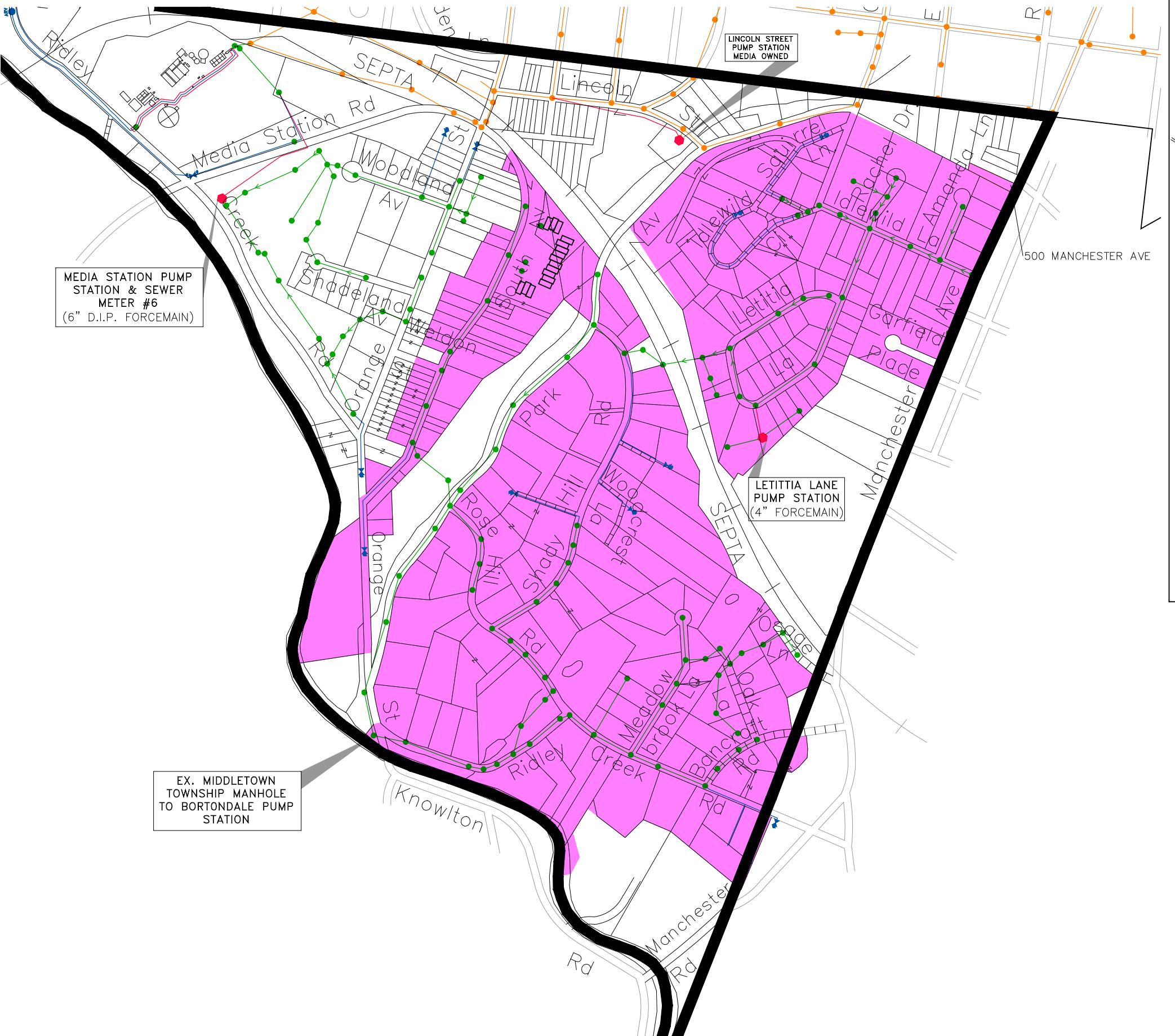
11. TRIBUTARY MUNICIPALITY REPORTS

Each tributary municipality (or authority) that is the permittee of its own collection and conveyance system, but which sends sewage flow to the WWTF submitting this report, must submit their respective information for inclusion in the WWTF's Chapter 94 Report. Each permittee's report should contain all of the information required in 25 Pa Code § 94.12 (Annual Report), excluding that information pertaining to a WWTF or industrial waste dischargers that would be inspected and/or regulated by the permittee of the WWTF. Include copies of any correspondence with tributary municipalities/authorities regarding acquisition of this information.

UPTSA Response: *See attached appendices.*

ATTACHMENT “A”

FLOW AREA MAP
SANITARY SEWER SYSTEM



| | |
|----------------------------------|--|
| KELLY ENGINEERS | |
| CONSULTING ENGINEERS & SURVEYORS | |
| 30 LaClue Avenue, Suite 201 | |
| Glen Mills, Pennsylvania 19342 | |
| 610.553.9363 Fax: 610.558.9376 | |
| BY | |

ATTACHMENT 'A'
CHAPTER 94 - YEAR 2023
UPPER PROVIDENCE TOWNSHIP
DELAWARE COUNTY, PENNSYLVANIA

MTSACHESTER CREEK INTERCEPTOR

This document and all information and work products presented by and to Key Engineers, Inc. and its associates, hereinafter referred to as "Key Engineers". The information contained herein is confidential and is the property of Key Engineers. The information contained herein is to be used only for the intended purpose for which it was furnished and is not to be reproduced, distributed, or transmitted in whole or in part, or otherwise used, without the prior written permission of James C. Kelly & Associates, Inc. Copyright, 2022, James C. Kelly & Associates, Inc. All rights reserved.

| LEGEND | |
|---------------|--|
| ● | Ex. SANITARY SEWER and MANHOLE |
| ● | Ex. SANITARY FORCE MAIN and PUMP STATION |
| ● | Ex. SANITARY FORCE MAIN and GRINDER PUMP |
| ● | Ex. SAN. FORCE MAIN M.H. (WASHOUT or AIR RELIEF) |
| ○ | Prop. SANITARY SEWER and MANHOLE |
| ○ | Prop. SANITARY FORCE MAIN and PUMP STATION |
| ■ | CDCA DISTRICT |
| ■ | SOUTHWEST DISTRICT |

| EXISTING EDU COUNT | |
|--|--|
| 225 TOTAL EXISTING EDU'S CONNECTED INTO SWDCMA | |

| RECENTLY CONNECTED EDU COUNT | |
|-------------------------------------|-----------------------------|
| 14 ROSE HILL ROAD : | 1 EDU (CONNECTED IN 2022) |
| ROSE HILL DEVELOPERS : | 5 EDU'S (CONNECTED IN 2016) |
| PUZZLE FACE DEVELOPERS: | 3 EDU'S (CONNECTED IN 2016) |
| BONAVENTURE BUILDERS: | 1 EDU (CONNECTED IN 2016) |
| 500 MANCHESTER AVENUE: | 1 EDU (CONNECTED IN 2017) |

ATTACHMENT “B”

2020-2023 SANITARY SEWER MAINTENANCE, EMERGENCY SERVICE AND
CLEANING CONTRACT (EXCERPT)

**SPECIFICATIONS AND CONTRACT DOCUMENTS
FOR
THE 2020-2023 SANITARY SEWER PUMP STATION MAINTENANCE,
EMERGENCY SERVICE AND CLEANING PROGRAM**

in

UPPER PROVIDENCE TOWNSHIP
DELAWARE COUNTY, PA



PREPARED FOR:
UPPER PROVIDENCE TOWNSHIP
SEWER AUTHORITY
935 N. PROVIDENCE ROAD
MEDIA, PA 19063

PREPARED BY:
KELLY & CLOSE ENGINEERS.
THE SUMMIT AT BRANDYWINE
1786 WILMINGTON WEST CHESTER PIKE / SUITE 300
GLEN MILLS, PA 19342
(610) 358-9363

October 2019

UPTSA-116A

TABLE OF CONTENTS

| | |
|---|----|
| TABLE OF CONTENTS..... | I |
| LIST OF DRAWINGS..... | II |
| NOTICE TO BIDDERS | 3 |
| INSTRUCTIONS TO BIDDERS | 4 |
| FORM OF PROPOSAL..... | 8 |
| ARTICLES OF AGREEMENT..... | 12 |
| BID BOND | 14 |
| BIDDERS QUALIFICATIONS | 18 |
| NON-COLLUSION AFFIDAVIT..... | 21 |
| INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT | 23 |
| AFFIDAVIT ACCEPTING WORKMEN'S COMPENSATION ACT | 24 |
| NON-DISCRIMINATION & EQUAL OPPORTUNITY REQUIREMENTS | 25 |
| PERFORMANCE AND MAINTENANCE BOND | 29 |
| PAYMENT BOND | 31 |
| GENERAL CONDITIONS | 33 |
| SPECIAL CONDITIONS | 56 |
| PENNSYLVANIA ONE CALL SYSTEM..... | 60 |
| TECHNICAL SPECIFICATIONS..... | 62 |
| SECTION 02734 SANITARY SEWER CLEANING..... | 63 |
| ATTACHMENTS | 66 |

LIST OF DRAWINGS
(TO BE FORWARDED ELECTRONICALLY)

- Year 1:** **District 1 (Lemon Street Pump Station)**
- Year 2:** **District 2 (Valley View Pump Station)**
District 8 (CDCA/Farnum Road)
District 10A (Toft Woods)
- Year 3:** **District 4 (Braves Trail Pump Station)**
District 5 (Media Station Pump Station)
District 6 (Bortondale Pump Station)
- Year 4:** **District 3 (Winter Street Pump Station)**

NOTICE TO BIDDERS
UPPER PROVIDENCE TOWNSHIP SEWER AUTHORITY
DELAWARE COUNTY, PENNSYLVANIA

Sealed proposals will be received and opened publicly by Upper Providence Township Sewer Authority until Tuesday, November 12th, 2019 at 10:00 a.m. (local time) at the Upper Providence Township Sewer Authority Municipal Building, 935 N. Providence Road, Media, PA 19063 for the:

2020-2023 Sanitary Sewer Pump Station Maintenance, Emergency Service, and Cleaning Program:

The Maintenance & Emergency Services are for all Sanitary Sewer Pumping Stations in the Township. The Sewer Cleaning Contract consists of the removal of all sludge, mud, sand, gravel, rocks, bricks, grease, roots and protruding laterals from the sanitary sewer pipes in the delineated areas of the Township. Sanitary sewer pipes will be accessed by opening or unbolting manhole lids, for which the contractor is responsible. Locating manholes is the sole responsibility of the contractor. The project will be phased over a four (4) year period.

Specifications and bidding documents may be obtained at the office of the Authority's Engineer, Kelly & Close Engineers, The Summit at Brandywine, 1786 Wilmington West Chester Pike, Suite 300, Glen Mills, PA 19342, upon deposit of \$35.00 per set, which is non-refundable.

Each bid must be accompanied by a certified check or bid bond in the amount of ten (10) percent of the first year's bid payable to the Upper Providence Township Sewer Authority. The bid must be on the forms furnished in the package and enclosed in a sealed envelope plainly endorsed on the outside with the Bidders Company name and "2020-2023 Sanitary Sewer Pump Station Maintenance, Emergency Service and Cleaning Program" and addressed to the Authority at the above address.

Notice is hereby given to the requirements contained in this Bid Package particularly to the various insurance requirements, various equal opportunity provisions, and the requirement for the yearly submittal of one hundred percent (100%) Performance, Payment Bonds, and Contractor Pollution Liability Insurance.

The Authority reserves the right to accept or reject any or all bids, or parts thereof, and to waive any formalities in the best interest of the Authority. No bidder may withdraw his bid for a period of ninety (90) calendar days from the date of receiving the bids by the Authority except as provided by law. A bidder may withdraw his bid at any time prior to the opening of the bids, upon delivery of written notification of such withdrawal to the Authority.

By: Upper Providence Township Sewer Authority,
Richard Spielman, Manager

INSTRUCTIONS TO BIDDERS

1 THE WORK

- A. The removal of all sludge, mud, sand, gravel, rocks, bricks, grease, roots and protruding laterals from the sanitary sewer pipes in the delineated areas. The project will be phased over a four (4) year period.
- B. Maintenance and Emergency Services for all Sanitary Sewer Pump Stations within the Township.

2 SECURING DOCUMENTS

- A. Upon the conditions set forth in the Notice to Bidders, copies of the proposed Contract Documents may be obtained from the office of Upper Providence Township Sewer Authority Engineer:

Kelly & Close Engineers
The Summit at Brandywine
1786 Wilmington West Chester Pike / Suite 300
Glen Mills, PA 19342
610-358-9363

3 BID FORM

- A. In order to receive consideration, bids shall be submitted in strict accordance with the following:
 1. Bids shall be on the forms provided therefor, properly signed and with all items filled out. Do not change the wording of the bid form, and do not add words to the bid form. Unauthorized conditions, limitations or provisions attached to the bid may be cause for rejection of the bid. If alterations by erasure or interlineation are made for any reason, explain over such erasure or interlineation with a signed statement from the Bidder.
 2. No telegraphic bid or telegraphic modification of a bid will be considered. No bids received after the time fixed for receiving them will be considered. Late bids will be returned to the Bidder unopened.
 3. Address bids to the Owner and deliver to the address given in the Invitation to Bid on or before the day and hour set for opening the bids. Enclose each bid in a sealed envelope bearing the title of the work, the name of the Bidder, and the date and hour of the bid opening. Submit only the original signed copy of the bid. It is the sole responsibility of the Bidder to see that his bid is received on time.

4 BONDS:

- A. Bid security in the amount stated in the Notice to Bidders will be held by the Owner until the Bidder has signed the Contract and has furnished the required Certificates of Insurance, including Contractor Pollution Liability Insurance.
- B. The Owner reserves the right to retain the security of all Bidders until the successful Bidder enters into the Contract or until ninety (90) days after bid opening, whichever is sooner. Other bid security will be returned as soon as practicable. If any Bidder refuses to enter into a Contract, the Owner may retain his bid security as Liquidated Damages but not as penalty.
- C. Prior to signing the Contract and every year of the Contract term thereafter, the Owner will require the successful Bidder to secure and post a Payment Bond and Performance and Maintenance Bond, each in the amount of 100% of the first year's Contract Sum, and each on the form provided in the Contract Documents. Such bonds shall be issued by Surety, acceptable to the Owner. Costs of such bonds will be paid for by the Contractor. In lieu of the above bonds, Federal or Commonwealth chartered lending institution irrevocable letters of credit and restrictive or escrow accounts, equal to 100% of the contract amount, will be acceptable.
- D. Upon completion of the year's work, the Owner will require the successful Bidder to continue the Performance and Maintenance Bond described in paragraph C, at the expense of the Contractor in the amount of 100% of the year's contract sum guaranteeing the structural integrity, maintaining such work, and remedying without cost to said Owner, any defect which may develop during the period of twelve (12) months from the date of final acceptance.

5 EXAMINATION OF DOCUMENTS AND SITE OF WORK

- A. Before submitting a bid, each Bidder shall examine the Drawings carefully, shall read the Specifications and all other Contract Documents, and shall visit the site of the Work. Each Bidder shall fully inform himself prior to Bidding as the existing conditions and limitations under which the Work is to be performed, and shall include in his bid a sum to cover the cost of items necessary to perform the Work as set forth in the Contract Documents. No allowance will be made to a Bidder because of lack of such examination or knowledge. The submission of a bid will be considered as conclusive evidence that the Bidder has made such examination.

6 PROOF OF COMPETENCY OF BIDDER

- A. A Bidder will be required to furnish evidence satisfactory to the Owner that he and his proposed subcontractors have sufficient

means and experience in the types of work called for to assure completion of Contract in a satisfactory manner. The Bidder's Qualifications form must be completed, signed and notarized and submitted with the Bid Proposal.

- B. A Bidder will be required to have a Certified Workplace Safety Committee in accordance with PA DLI requirements.
- C. A Bidder will be required to have a Written Heath and Safety Manual, containing a confined space entry program that complies with OSHA 1926 Subpart AA.
- D. A Bidder will be required to provide confined space training records for all employees in accordance with OSHA 1926.1207 requirements.
- E. A Bidder will be required to have no serious or willful OSHA citations within the past 12 months.

7 WITHDRAWAL OF BIDS

- A. A Bidder may withdraw his bid, either personally or by written request, at any time prior to the scheduled time for opening of bids.
- B. No Bidder may withdraw his bid for a period of ninety (90) calendar days after the date set for opening thereof, and bids shall be subject to acceptance by the Owner during this period.

8 AWARD OR REJECTION OF BIDS

- A. The Contract, if awarded, will be awarded to the most qualified Bidder who has proposed the lowest Contract Sum, subject to the Owner's right to reject any or all bids and to waive informality and/or irregularity in the bids.

9 EXECUTION OF AGREEMENT

- A. The Form of Proposal, which the successful Bidder is required to execute, is included in the Specifications and Contract Documents.
- B. The successful Bidder shall return to the Owner, within fifteen (15) calendar days of the date of the notice, the signed Notice of Award and Agreement forms.
- C. At or prior to delivery of the signed Notice of Award and Agreement forms, the Bidder to whom the Contract is awarded shall deliver to the Owner those Certificates of Insurance required by the Contract Documents and such Payment Bonds and Performance Bonds as are required by the Owner.
- D. The Owner shall approve bonds and Certificates of Insurance before the successful Bidder may proceed with the Work. Failure or refusal to provide Bonds or Certificates of Insurance in a form satisfactory to the Owner shall subject the successful Bidder to loss of time from the allowable construction period equal to the time of delay in furnishing the required material.

10 INTERPRETATION OF CONTRACT DOCUMENTS PRIOR TO BIDDING

- A. If any person contemplating submission of a bid for the Work is in doubt as to the true meaning of any part of the proposed Contract Documents, or finds discrepancies in or omissions from any part of the proposed Contract Documents, he may submit a written request for interpretation thereof to the Engineer not later than seven (7) business days before bids will be opened. The person submitting the request shall be responsible for its prompt delivery.
- B. Interpretation or correction of proposed Contract Documents will be made only by Addendum and will be mailed or delivered to each General Contract Bidder of Record. The Owner will not be responsible for any other explanations or interpretations of the proposed Contract Documents.

11 CONSTRUCTION TIME

- A. The Agreement will include a stipulation that the Work be completed as defined for the project as:
 1. Thirty (30) calendar days following receipt of the Owner's Notice to Proceed, unless otherwise approved by owner.

12 NON-COLLUSION AFFIDAVIT

- A. The Non-Collusion Affidavit must be submitted with the bid or the bid will be held to be invalid.

13 MATERIAL SAFETY DATA SHEETS

- A. Material Safety Data Sheets must be submitted for respective products, in compliance with Federal Hazard Communication Standard Act (29 CFR 1910, 1200) and various State Right-to-Know Laws.

END OF SECTION

FORM OF PROPOSAL
**2020-2023 SANITARY SEWER PUMP STATION MAINTENANCE,
EMERGENCY SERVICE AND CLEANING PROGRAM**

TO: Upper Providence Township From: _____
Sewer Authority (Contractor)
935 N. Providence Road
Media, PA 19063 Date:

The undersigned (hereinafter called the Bidder) hereby proposes to furnish the following:

1. Maintenance and Emergency Service for all Sanitary Sewer Pump Stations within the Township.
2. Removal of all sludge, mud, sand, gravel, rocks, bricks, grease, roots and protruding laterals from the sanitary sewer pipes in the areas delineated by the successful location and access of sanitary sewer manholes.

and to provide such material in strict accordance with the General Provisions, and Specifications hereto annexed and made a part of this Agreement to the satisfaction of the Authority and the Authority Engineer, for a contract price of:

_____ (\$_____)
(Amount In Writing) (Figures)

(Must agree with project total shown below)

All quantities are approximate and provided for the purposes of bidding. Payment shall be based on actual quantities of work accepted by the Owner. Each item's unit price and total price must include the cost to install the item compete-in-place.

PUMP STATION MAINTENANCE AND EMERGENCY REPAIR

Four (4) Year Period January 1, 2020 thru
December 31, 2023

_____ (\$ _____)
(AMOUNT IN WRITING) (FIGURES)

II. Labor for Extra Work on Pumping Stations and Emergency Repair of the Sanitary Sewer System, Complete, including Necessary Tools:

| | Four (4) Year Period |
|----------------------------------|----------------------|
| a. Mechanic Foreman | \$ _____ /HR |
| b. Mechanic | \$ _____ /HR |
| c. Mechanic Helper | \$ _____ /HR |
| d. Electrician | \$ _____ /HR |
| e. Electrician Apprentice/Helper | \$ _____ /HR |
| f. Laborer | \$ _____ /HR |

ALTERNATE ITEM (Not Included In Total Bid Price)

III. Labor for Extra Work on Pumping Stations and Emergency Cleaning of the Sanitary Sewer System, Complete, including Necessary Tools:

| | Four (4) Year Period |
|----------------------------------|----------------------|
| a. Mechanic Foreman | \$ _____ /HR |
| b. Mechanic | \$ _____ /HR |
| c. Mechanic Helper | \$ _____ /HR |
| d. Electrician | \$ _____ /HR |
| e. Electrician Apprentice/Helper | \$ _____ /HR |
| f. Laborer | \$ _____ /HR |

NOTE: Payments for items II & III will be made to the Contractor for each service call. Payments for Items IA/IB will be made to the Contractor in equal installments on a monthly basis beginning the month following commencement of work under the Contract.

SEWER CLEANING

Proposal for 2020 Cleaning Cycle

| NO. | ITEM | UNIT | APPROX. QUANTITY | UNIT PRICE | TOTAL PRICE |
|-----|--|---------------|------------------|------------|-------------|
| 1 | Routine cleaning of sanitary sewer mains and root cutting within District No. One (1). | LF | 18,506 | \$_____ | \$_____ |
| 2 | Routine cleaning and root cutting of annual system "Hot Spots" within the sanitary sewer system. | LF | 5,000 | \$_____ | \$_____ |
| 3 | Televise sanitary sewer mains and furnish electronic/digital copy of televising report. | LF | 14,022 | \$_____ | \$_____ |
| | | 2020 SUBTOTAL | | \$_____ | |

Proposal for 2021 Cleaning Cycle

| NO. | ITEM | UNIT | APPROX. QUANTITY | UNIT PRICE | TOTAL PRICE |
|-----|--|---------------|------------------|------------|-------------|
| 1 | Routine cleaning of sanitary sewer mains and root cutting within Districts Two (2), Eight (8), and District Ten "A" (10A). | LF | 21,211 | \$_____ | \$_____ |
| 2 | Routine cleaning and root cutting of annual system "Hot Spots" within the sanitary sewer system. | LF | 5,000 | \$_____ | \$_____ |
| 3 | Televise sanitary sewer mains and furnish electronic/digital copy of televising report. | LF | 15,996 | \$_____ | \$_____ |
| | | 2021 SUBTOTAL | | \$_____ | |

Proposal for 2022 Cleaning Cycle

| NO. | ITEM | UNIT | APPROX. QUANTITY | UNIT PRICE | TOTAL PRICE |
|-----|---|---------------|------------------|------------|-------------|
| 1 | Routine cleaning of sanitary sewer mains and root cutting within Districts Four (4), Five (5), and Six (6). | LF | 32,211 | \$_____ | \$_____ |
| 2 | Routine cleaning and root cutting of annual system "Hot Spots" within the sanitary sewer system. | LF | 5,000 | \$_____ | \$_____ |
| 3 | Televise sanitary sewer mains and furnish electronic/digital copy of televising report. | LF | 11,373 | \$_____ | \$_____ |
| | | 2022 SUBTOTAL | | \$_____ | |

Proposal for 2023 Cleaning Cycle

| NO. | ITEM | UNIT | APPROX. QUANTITY | UNIT PRICE | TOTAL PRICE |
|-----|--|---------------|------------------|------------|-------------|
| 1 | Routine cleaning of sanitary sewer mains and root cutting within District No. Three (3). | LF | 18,580 | \$ _____ | \$ _____ |
| 2 | Routine cleaning and root cutting of annual system "Hot Spots" within the sanitary sewer system. | LF | 5,000 | \$ _____ | \$ _____ |
| 3 | Televise sanitary sewer mains and furnish electronic/digital copy of televising report. | LF | 12,081 | \$ _____ | \$ _____ |
| | | 2023 SUBTOTAL | | \$ _____ | |

| | |
|---|----------|
| TOTAL CONTRACT PRICE: (must agree with amount in writing shown above) | \$ _____ |
|---|----------|

We hereby acknowledge receipt of Addendum No.: _____ Dated: _____

We hereby acknowledge receipt of Addendum No.: _____ Dated: _____

We hereby acknowledge receipt of Addendum No.: _____ Dated: _____

Unit Prices shall include all labor, tools, materials, equipment, services, transportation, bailing, shoring, dewatering, curing work, supervision, overhead, profit, insurance, bonds, incidentals, etc. Changes shall be processed to comply with applicable sections of the General Conditions.

The Owner reserves the right to increase or decrease quantities of work and to eliminate sections in part or in whole as they determine necessary for their best interest. Unit Prices indicated will remain as noted, regardless of final quantity, for the entire contract life. Bidders/Contractors who propose unbalanced bid items, does so at their sole risk and expense. The OWNER RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS OR TO WAIVE INFORMALITIES IN THE BIDDING.

END OF SECTION

ARTICLES OF AGREEMENT

ARTICLES OF AGREEMENT, made this _____ day of _____, A.D., 20____, by and between Upper Providence Township Sewer Authority, a Municipal Authority of, Delaware County, Pennsylvania (hereinafter called "Authority") and

(hereinafter called "Contractor");
WITNESSETH

The Contractor covenants, promises and agrees to and with the Authority to furnish all materials, equipment and labor to complete the **2020-2023 Sanitary Sewer Pump Station Maintenance, Emergency Service and Cleaning Program** with the Plans, the Technical Specifications and all Township Ordinances and Authority Resolutions relating thereto, in a first class, workmanlike manner, to the satisfaction of the Authority Members and the Authority Engineer for contract price of _____ Dollars based on the items and prices listed in the Form of Proposal as more particularly set forth in the said annexed Form of Proposal, Invitations to Bidders, General Conditions and Specifications; and

Notwithstanding anything set forth in the said Plans, the Technical Specifications, Authority Resolutions and all Township Ordinances relating thereto, and the said Proposal, Invitation to Bidders, General Conditions, and Specifications, it is hereby agreed that if the Contractor fails to complete the project within thirty (30) days from the Notice to Proceed, the Authority shall have the right to call on the Contractor's Performance and Maintenance Bond, or to deduct said costs from sums then owing by the Authority to the Contractor under the terms of this Agreement; and

Contractor shall indemnify the Authority and all officers and agents thereof against all damages, costs or expenses in law or equity that may at any time arise or result from damages to property or for personal injury received by reason of or in the course of performing any work in connection with this contract, which damages or injuries are occasioned by any negligent act or omission to act on the part of the Contractor, or any of its servants, agents or employees or Subcontractor performing any of the work contemplated by or under this contract; and

The Authority covenants, promises and agrees to and with the Contractor to pay the prices as set forth in said proposal and Bid for said work, and it is further mutually agreed by said parties, in consideration of their aforesaid mutual covenants, that the annexed Plans, Invitation to Bidders, Proposal, General Conditions and Technical Specifications annexed thereto constitute and are a part of the Contract as though fully set forth herein.

IN WITNESS WHEREOF, the Contractor has duly signed and sealed this Agreement, and the Authority has hereunto signed and caused its corporate seal to be affixed, duly attested by its proper officers, the day and year aforesaid

UPPER PROVIDENCE TOWNSHIP SEWER AUTHORITY

TITLE: _____

ATTEST: _____ SEAL: _____

(Contractor)

BY: _____

ATTEST: _____ SEAL: _____

END OF SECTION

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we the undersigned

_____, as PRINCIPAL,
(Name of Principal)

and _____, as SURETY,
(Name of Surety)

are held and firmly bound unto the **Upper Providence Township Sewer Authority**, hereinafter called the "Local Public Agency" in the penal sum of _____ Dollars (\$_____) lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid, dated

_____, 20____, for the 2020-2023 Sanitary Sewer Pump Station Maintenance, Emergency Service and Cleaning Program.

NOW, THEREFORE, if the Principal shall not withdraw said Bid within the period of the specified therein after the opening of the same, or, if no period be specified, within ninety (90) days after the said opening and shall within the period specified therefore, or if no period be specified, within fifteen (15) days after the prescribed forms are presented to him for signature, enter into a written Contract with the Local Public Agency in accordance with the Bid as accepted, and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such Contract, or in the event of the withdrawal of said Bid within the period specified, or the failure to enter into such Contract and give such bond within the time specified, if the Principals shall pay the Local Public Agency the difference between the amount specified in said Bid and the amount for which the Local Public Agency may procure the required work or supplies or both, if the latter be in excess of the former, the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their several seals this ____ day of _____, 20____, the name and 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)

(SEAL)

(Partnership)

(SEAL)

(Business Address)

ATTEST:

BY: _____
(Corporate Principal)

(Business Address)

AFFIX
CORPORATE
SEAL:

(Attest) _____
(Corporate Surety)

BY: _____

AFFIX
CORPORATE
SEAL:

Countersigned:

BY: _____

CERTIFICATE AS TO CORPORATE PRINCIPAL

I, _____, certify that I am the _____ (title) of the Corporation named as Principal within the bond; that _____ who signed the said bond on behalf of the Principal was then _____ of said corporation; that I know his signature, and his signature thereto is genuine; and that said bond was duly signed, sealed and attested to for and in behalf of said corporation by authority of this governing body.

(SIGNATURE)

CORPORATE SEAL:

Bidder understands that the Owner reserves the right to reject any or all bids.

The Bidder agrees that this bid shall be good and may not be withdrawn for a period of ninety (90) calendar days after the scheduled closing time for receiving bids.

Upon receipt of written notice of the acceptance of this bid, Bidder shall execute the formal contract attached within fifteen (15) calendar days and deliver a Surety Bond or Bonds as required by the General Conditions. The bid security attached in the sum of (\$ _____)

(Amount in writing)

is to become the property of the Owner in the event the contract and bond are not executed within the time above set forth, as liquidated damages for the delay and additional expense to the Owner caused thereby.

Respectfully submitted:

BY: _____

TITLE: _____

ADDRESS: _____

PHONE #: _____

FAX #: _____

SEAL (if
corporation):

END OF SECTION

BIDDERS QUALIFICATIONS

STATEMENT OF BIDDER'S QUALIFICATIONS

All questions must be answered and the date given must be clear and comprehensive. This statement must be notarized. If necessary, questions may be answered on separate attached sheets. The Bidder may submit additional information if he so desires. **(This form must be submitted with the Form of Proposal.)**

- A. Name of Bidder:

- B. Permanent main office address, phone number and fax number:

- C. When organized:

- D. If a corporation, where incorporated:

- E. How many years have you been engaged in the contracting business under your present firm or trade name?

- F. Contracts on hand: (Schedule these, showing amount of each contract and the appropriate anticipated dates of completion.)

- G. General character of work performed by your company:

- H. Have you ever failed to complete any work awarded to you? If so, where and why?

- I. Have you ever defaulted on a contract? If so, where and why?

- J. List the more important projects recently completed by your company, stating the Owner's name and address, the project manager's name for the Owner, the approximate cost for each project, and the month and year completed:
- K. List any projects completed within the last two years for which you have not been paid in full. Present the reason for this non-payment. Please provide the name, address, and phone number of the agency who refused payment to your firm:
- L. List your major equipment available for this contract:
- M. List any proposed subcontractors you will use for this project.
- N. Experience in construction work, similar in importance to this project:
- O. Background and experience of the principal members of your organization, including the officers:
- P. Credit available \$_____
- Q. Give Bank Reference:
- R. Will you, upon request, fill out a detailed financial statement and furnish any other information that may be required by the awarding agency?

The undersigned hereby authorizes and requests any person, firm, or corporation to furnish any information requested by the awarding agency in verification of the recitals comprising this Statement of Bidders qualifications.

Dated at _____ this _____ day of _____, 20____.

Name of Bidder: _____

BY: _____

TITLE: _____

State of: _____

County of: _____

I, _____, being duly sworn deposes and says that he is

_____ of _____
(Title) (Name of Organization)

and that the answers to the foregoing questions and all statements therein contained are true and correct.

Subscribed and sworn to before me this _____ day of _____, 20____

(Notary Public)

My commission expires _____, 20____.

END OF SECTION

NON-COLLUSION AFFIDAVIT

State of _____ :

:ss

County of _____ :

I state that I am _____ of _____
(Title) (Name of my firm)

and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the price(s) and the amount of this bid.

I state that:

1. The price(s) and amount of this bid have been arrived at independently and without consultation, communication or agreement with any other bidder or potential bidder.
2. Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid, have been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before bid opening.
3. No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, or to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.
4. The bid of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.

_____, its affiliates,
(Name of my firm)
subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency and have not in the last four (4) years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract, except as follows:

I state that _____ understands and
(Name of my firm)
acknowledges that the above representations are material and important, and will be relied on by the **Upper Providence Township Sewer Authority** in awarding the contract(s) for which this bid is submitted. I understand and my firm understands that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the **Upper Providence Township Sewer Authority** of the true facts relating to the submission of bids for this contract.

(Company) _____

By: _____

Signature: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20_____

(Notary Public)

My commission expires _____, 20_____.

INSTRUCTIONS FOR NON-COLLUSION AFFIDAVIT

- A. This Non-Collusion Affidavit is material to any contract awarded pursuant to this bid. According to the Pennsylvania Antibid-Rigging Act, 73 PS s.s. 1611 et. seq., governmental agencies may require Non-Collusion Affidavits to be submitted together with bids.
- B. This Non-Collusion Affidavit must be executed by the member, officer or employee of the bidder who makes the final decision on prices and the amount quoted in the bid.
- C. Bid rigging and other efforts to restrain competition and the making of false sworn statements, in connection with the submission of bids are unlawful and may be subject to criminal prosecution. The person who signs the Affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the bidder with responsibilities for the preparation, approval or submission of the bid.
- D. In the case of a bid submitted by a joint venture, each party to the venture must be identified in the bid documents, and an Affidavit must be submitted separately on behalf of each party.
- E. The term "complementary bid" as used in the Affidavit has the meaning commonly associated with that term in the bidding process, and includes the knowing submission of bids higher than the bid of another firm, any intentionally high or noncompetitive bid, and any other form of bid submitted for the purpose of giving a false appearance of competition.
- F. FAILURE TO FILE AN AFFIDAVIT IN COMPLIANCE WITH THESE INSTRUCTIONS WILL RESULT IN DISQUALIFICATION OF THE BID.

END OF SECTION

AFFIDAVIT ACCEPTING WORKMEN'S COMPENSATION ACT

State of _____ :
:ss

County of _____ :

_____ being duly sworn according to law
disposes and says that (they, he, it) (has, have) accepted the provisions of the
Workmen's Compensation Act of 1915 of the Commonwealth of Pennsylvania,
with its supplements and amendments, and (has, have) insured (his, their, its)
liability thereunder in accordance with the terms of
said Act with _____
(Company)

(Type or Print Name of Contractor)

BY: _____
(Title)

Sworn to and subscribed before me this _____ day of _____, 20____.

(Notary Public)

My commission expires: _____
(Date)

END OF SECTION

NON-DISCRIMINATION & EQUAL OPPORTUNITY REQUIREMENTS
COMMONWEALTH OF PENNSYLVANIA REQUIREMENTS

During the performance of this Contract, the Contractor agrees as follows:

- A. Contractor shall not discriminate against any employee, applicant for employment, independent contractor or any other person because of race, color, religious creed, ancestry, national origin, age or sex.
- B. Contractor shall take affirmative action to ensure that applicants are employed, and that employees or agents are treated during employment, without regard to their race, color, religious creed, ancestry, national origin, age or sex. Such affirmative action shall include, but is not limited to, the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training.
- C. Contractor shall post in conspicuous places, available to employees, agents, applicants for employment and other persons, a notice to be provided by the contracting agency setting forth the provisions of this non-discrimination clause.
- D. Contractor shall in advertisements or requests for employment placed by it or on its behalf state all qualified applicants will receive consideration for employment without regard to race, color, religious creed, ancestry, national origin, age or sex.
- E. Contractor shall send each labor union or workers' representative with which it has a collective bargaining agreement or other contract or understanding, a notice advising said labor union or workers' representative of its commitment to this non-discrimination clause. Similar notice shall be sent to every other source of recruitment regularly utilized by Contractor.
- F. It shall be no defense to a finding of noncompliance with the Contract Compliance Regulations issued by the Pennsylvania Human Relations Commission or this non-discrimination clause that Contractor had delegated some of its employment practices to any union, training program or other source of recruitment which prevents it from meeting its obligations. However, if the evidence indicates that the Contractor was not on notice of the third-party discrimination or made a good faith effort to correct it, such factor shall be considered in mitigation in determining appropriate sanctions.
- G. Where the practices of a union or of any training program or other source of recruitment will result in the exclusion of minority group persons, so that Contractor will be unable to meet its obligations under the Contract Compliance Regulations issued

- by the Pennsylvania Human Relations Commission, or this non-discrimination clause, Contractor shall then employ and fill vacancies through other non-discriminatory employment procedures.
- H. Contractor shall comply with the Contract Compliance Regulations of the Pennsylvania Human Relations Commission, 16 Pa. Code Chapter 49 and with all laws prohibiting discrimination clause of this contract or with any such laws, this contract may, after hearing and adjudication, be terminated or suspended in whole or in part, and Contractor may be declared temporarily ineligible for further Commonwealth contracts, and such other sanctions may imposed and remedies invoked as provided by the Contract Compliance Regulations.
 - I. Contractor shall furnish all necessary employment documents and records to, and permit access to its books, records and accounts by the contracting agency and the Human Relations Commission, for purposes of investigation to ascertain compliance Regulations, pursuant to Section 49.35 of these Regulations. If Contractor does not possess documents or records reflecting the necessary information requested, it shall furnish such information on reporting forms supplied by the contracting agency or the Commission.
 - J. Contractor shall actively recruit minority subcontractors or subcontractors with substantial minority representation among their employees.
 - K. Contractor shall include the provisions of this non-discrimination clause in every subcontract, so that such provision will be binding upon each subcontractor.
 - L. The terms used in this non-discrimination clause shall have the same meaning as in the Contract Compliance Regulation issued by the Pennsylvania Human Relations Commission, 16 Pa. Code Chapter 49.
 - M. Contractor obligations under this clause are limited to the Contractor's facilities within Pennsylvania, or, where the contract is for purchase of goods manufactured outside of Pennsylvania, the facilities at which such goods are actually produced.

FEDERAL GOVERNMENT REQUIREMENTS

During the performance of this Contract, the Contractor agrees as follows:

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to race, creed, color, or national origin. Such action shall include, but not be limited

to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting office setting forth the provisions of this nondiscrimination clause.

- B. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, or national origin.
- C. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the Contractor's commitments under Section 202 of the Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- D. The Contractor will comply with all provisions of Executive Order No. 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- E. The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations and orders.
- F. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be canceled, or terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1964, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- G. The Contractor will include the provisions of Paragraphs A through F in every subcontract or purchase order unless exempted by rules, regulations or orders of the Secretary of Labor issued pursuant to Section 204 of the Executive Order No. 11246 of September 24, 1964, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will

take such action with respect to any subcontractor or purchase order as the contracting agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

END OF SECTION

PERFORMANCE AND MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal, and _____ as Surety, hereinafter called Obligors, are held and firmly bound unto the **Upper Providence Township Sewer Authority** hereinafter called the Obligees, in the sum of _____ (\$_____) dollars lawful money of the United States of America, well and truly to be paid, and for the payment of which we and each of us hereby bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presenters.

Dated this _____ day of _____, 20 _____.

WHEREAS, the said principal has entered into a certain contract in writing for the **2020-2023 Sanitary Sewer Pump Station Maintenance, Emergency Service and Cleaning Program** bearing date the _____ day of _____, 20 _____, with the Obligee to furnish and deliver the materials and do and perform all of the work and labor required as specified and designated therein;

NOW THE CONDITION OF THIS OBLIGATION IS AS SUCH that if the said Obligors shall faithfully perform and comply with the terms and provisions of the said Contract, and shall complete the work therein mentioned as provided therein, in accordance with the said contract, and to the satisfaction and approval of the Obligee, and all officers, employees, and agents, if the contractor satisfies all obligations in the contract and indemnifies the Authority obligations of the Bond Surety ceases or becomes null and void, of said Obligee against any and all loss, damages, claims, demands, suits, costs, expenses and charges (including counsel fees) suffered, sustained or incurred by said Obligee, or to which the said Obligee may become or be alleged to be liable for or by reason of any act, neglect or default on the part of the Contractor, his Subcontractors, agents or employees, and whether arising out of injuries sustained by workmen or employees engaged in such work or by any other persons or corporations who may suffer any damage for loss or injury to their persons or property in any way arising out of or in the doing of said work. In addition, Principal shall maintain such work and remedy, without cost to said Obligee, any defect which may develop within a period of one (1) year from the date of acceptance, as determined by Obligee and shall otherwise comply with the terms and conditions of said Contract, then this obligation shall become null and void, or otherwise shall remain in full force and virtue.

And the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alterations or addition to the forms of the Contract or the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond and it does hereby waive

notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

IN WITNESS WHEREOF the Principal has hereunto set his hand and seal and has these presents to be executed by its duly authorized officers and the corporate seal hereto affixed, duly attested, and the surety has caused these presents to be executed by its duly authorized officers and the corporate seal hereto affixed, fully attested, that day and year aforesaid.

SIGNED, SEALED AND DELIVERED THIS ____ DAY OF _____, 20 ____.

In the Presence of: (Individual Principles Sign Here)

_____ (SEAL)

(Corporate Principal Signs Here)

ATTEST:

BY: _____ (Surety Sign Here)

WITNESS:

END OF SECTION

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
of _____
as Principal, and _____ a corporation
incorporated under the laws of the State of _____,
_____ as SURETY, are held and firmly bound unto the
UPPER PROVIDENCE TOWNSHIP SEWER AUTHORITY (hereinafter called
AUTHORITY) in the full and just sum of
_____ (\$_____) dollars, lawful
money of the United States of America, to be paid to the said Authority or its
assigns, to which payment well and truly to be made to said Authority, we bind
ourselves, our heirs, executors, administrators, successors and assigns, jointly
and severally, firmly by these presents.

Dated this _____ day of _____ A.D., 20 ____.

WHEREAS, the above bound principal has entered into a contract with the above
Authority, hereinafter called Obligee, bearing even date herewith, for the **2020-
2023 Sanitary Sewer Pump Station Maintenance, Emergency Service and
Cleaning Program** in Upper Providence Township Sewer Authority for
approximately the sum of
_____ (\$_____)
dollars.

NOW THEREFORE, the condition of this obligation is such that if the above
bound PRINCIPAL shall and will promptly pay or cause to be paid in full all sums
of money which may be due by contract or otherwise, to any individual, firm,
partnership, association or corporation, for all material furnished or labor supplied
or performed in the prosecution of the work, whether or not the said material or
labor entered into and became component parts of the work and for rental of the
equipment used and services rendered by public utilities in, or in connection with
the prosecution of such work, then this obligation shall be void, otherwise it shall
remain in full force and effect.

The PRINCIPAL AND SURETY, hereby jointly and severally, agree with the
Obligee herein that any individual firm, partnership, association or corporation,
which has performed labor or furnished material in the prosecution of the work as
provided, and any public utility which has not been paid in full therefore, may sue
in assumpsit on this Payment Bond in his, their, or its own name and may
prosecute the same to final judgment for such sum or sums as may be justly due
him, them, or it, and have execution thereon. Provided, however, that the
Obligee shall not be liable for the payment of any costs or expenses of such suit.
RECOVERY by any individual, firm, partnership, association or corporation
hereunder shall be subject to the provisions of the "Public Works Contractors'
Bond Law of 1967", Act No. 385, approved December 20, 1967, PL 869, which

Act shall be incorporated herein and made a part hereof, as fully and completely as though its provisions were fully and at length herein recited.

It is further provided that any alterations which may be made in the terms of the Contract or in the work to be done or materials to be furnished or labor to be supplied or performed under it or the giving by the Obligee of any extension of time for the performance of the Contract or any forbearance on the part of either the Obligee or the Principal to the other, shall not in any way release the PRINCIPAL and the SURETY or SURETIES of its obligation to the Authority and notification of any such alteration, extension or forbearance is hereby waived.

IN WITNESS WHEREOF the said PRINCIPAL and SURETY have duly executed this Bond under seal this _____ day of _____, 20 ____.

BY: _____
(Contractor) _____ (Title)

Place Seal Here:

WITNESS:

BY: _____
(Title)

BY: _____
(Surety Company) _____ (Title)

Place Seal Here:

WITNESS:

BY: _____
(Title)

END OF SECTION

GENERAL CONDITIONS

1 ARTICLE 1 - DEFINITIONS:

- A. The Contract Documents consist of Notice to Bidders, Instructions to Bidders, Form of Proposal, Articles of Agreement, General Conditions, Special Conditions, the Plans, and the Specifications, including all modifications thereof incorporated in the documents before their execution. These form the Contract.
- B. The term "Owner" as used herein refers to the Authority, Municipality or Party shown in the Notice to Bidders.
- C. The term "Contractor" as used herein refers to the individual, firm, partnership, co-partnership or corporation who is mentioned as such in the agreement and is hereafter treated as of the singular number and masculine gender.
- D. The term "Engineer" as used herein refers to that company or person designated by the Owner or their representative having the work in charge.
- E. The term "Sub-Contractor" as used herein includes only those having direct contact with the Contractor and it includes one who furnished material worked to a special design according to the Plans and Specifications of this work, but does not include one who furnished material not so worked.
- F. The term "work" of the contractor or sub-contractor includes labor or materials or both.

2 ARTICLE 2 - EXECUTION, CORRELATION AND INTENT OF DOCUMENTS:

- A. The Contract Documents are complementary and what is called for by anyone shall be as binding as if called for by all. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. The Engineer will decide as to the meaning or intent of any portion of the Specifications or Plans, and where the same may be found obscure or in dispute he shall have the right to correct any errors or omissions therein. All work that may be called for in the specifications and not shown on the Plans, or shown on the Plans, and not called for in the specifications, shall be executed and furnished by the Contractor as if described in both ways; and should any incidental work or material be required which is not denoted in the specifications or plans, either directly or indirectly, but which is nevertheless necessary for the proper carrying out of the intent thereof and the Contractor is to understand the same to be implied and required and shall perform all such work and furnish all such material as fully as if they were partially delineated or described, and without extra cost to the Owner.

3 ARTICLE 3 - PLANS:

- A. Copies Furnished: Unless otherwise provided for in the Contract Documents, the Engineer will furnish to the Contractor, free of charge, electronic copies of the Contract Plans and Specifications reasonably necessary for the execution of the work.
- B. Copies of the Work: The Contractor shall keep one copy thereof of all drawings and specifications on the work in good order available to the Engineer and all his representatives.
- C. Ownership of Plans: All drawings and specifications and copies thereof furnished by the Engineer are his property. They are to be returned to him on request at the completion of the work, prior to the time of final payment.

4 ARTICLE 4 - CONTRACTOR'S UNDERSTANDING:

- A. It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature of and location of the work, the conformation of the ground, the character of equipment and facilities needed preliminary to and during the execution of the work, general and local conditions, and all other matters which can in any way affect the work under this contract. No verbal agreement or conversation with any officer, agent or employee of the Owner either before or after the execution of this contract, shall affect or modify any of the terms or obligations herein contained.

5 ARTICLE 5 - CHANGES IN THE WORK:

- A. The Engineer shall have the right to make such alterations in the plans or in the character of the work as may be considered necessary or desirable from time to time to complete materially the original plans and specifications, provided such alterations do not change materially the original plans and specifications, and such alterations shall not be considered a waiver of any condition of the contract nor to invalidate any of the provisions thereof.
- B. Should such alterations in the Plans result in an increase or decrease in the quantity of work to be performed, without change in character, the Contractor shall accept payment in full of the contract unit price for the actual quantities of work done. Should such alterations in the character of the work be productive of increased cost or result in decreased cost of the Contractor, a fair and equitable sum therefore shall be agreed upon in writing by the Contractor and the Engineer and approval by the Owner before such work is begun, and shall be added to or deducted from as the case may be, the contract price, where a change involves the omission and addition of similar work, such work

omitted shall be deducted from that added before any profit is computed. No allowance shall be made for anticipated profits.

6 ARTICLE 6 - EXTRA WORK:

- A. Work and materials of a character for which no price is named in the Agreement shall be considered as extra work which shall be done by the Contractor only upon written order signed by the Engineer, at a price to be previously agreed upon in writing by the Contractor and the Engineer and approved by the Owner.
- B. No bill or claim for extra work or materials shall be allowed or paid unless the doing of such work or furnishing of such extra materials shall have been authorized in writing by the Engineer.
- C. In no case shall the Contractor proceed with extra work of additional quantity or dissimilar character unless written approval has been obtained from the Engineer. This paragraph supersedes all other Articles in these conditions. The Contractor shall initiate a change order prior to beginning such work unless such an order has come from the Engineer or Owner. The change order will specify the quantity and character of work to be performed and designate the cost of the work, both in units and total cost.
- D. If the Contractor shall proceed with such work after receiving the written authority therefor, as hereinbefore provided, then such extra work shall be controlled by all of the terms and provisions of this contract, subject to such prices as are agreed upon and fixed by the Engineer and the Owner as hereinbefore provided.
- E. If the Contractor shall fail or decline to perform such extra work as authorized in writing as aforesaid, the Owner may then arrange for the performance of the work in any manner he may see fit, the same as if the contract had not been executed and the Contractor shall not interfere with such performance of the work, or the Owner may withhold payment of all estimated work until the Contractor's refusal or failure is eliminated. Any such extra cost to the Owner by reason of the Contractor's failure or refusal to perform such extra work shall be deducted from the amount due to the Contractor under the terms of the contract.
- F. At any time during the term of this agreement for Extra Work, Owner shall have the right to terminate this agreement without cause upon sixty (60) days written notice sent by certified mail to the business address of the Contractor.

7 ARTICLE 7 - FORCE ACCOUNT WORK:

- A. All extra work done on a force account basis will be paid for in the following manner:
- B. For all labor, trucks, truck drivers, operators, and foremen in direct charge of the specific operation, the Contractor shall

- receive the current local rate of wage, to be agreed upon in writing before starting such work, for each and every hour that said labor and/or trucks, truck drivers, operators, and foreman are actually engaged on such work, to which shall be added an amount equal to ten (10%) per cent of the sum thereof.
- C. For all materials used, the Contractor shall receive the actual cost of such materials including freight charges as shown by original invoices, to which cost shall be added a sum equal to fifteen (15%) per cent.
 - D. For any machinery or equipment, except small tools and equipment for which no rental is allowed, which may be deemed necessary or desirable to use, the Engineer, with the approval of the Owner, shall allow the Contractor a reasonable rental price for each and every hour that said machinery is in use on such work.
 - E. Such rental price shall include fuel and lubrication and shall be agreed upon in writing by the Contractor and the Engineer and approved by the Owner before such work is begun. No percentages shall be added to such rental price.
 - F. The compensation as herein provided shall be received by the Contractor as payment in full for work done on a force account basis, the fifteen (15%) per cent which is allowed on cost of materials including freight charges being allowed and accepted for which no rental is allowed, overhead expense, including insurance and profit. The Contractor's representative and the Engineer's representative shall compare records of extra work done on a force account basis at the end of each day. All claims for extra work done on a force account basis shall be submitted to the Engineer by the Contractor, upon certified triplicate statements to which shall be attached original invoices covering the cost of and freight charges on all materials used in such work. Said statements shall be filed not later than the twentieth day of the month following that in which the work was actually performed and shall include all labor charges, etc., and material charges insofar as they can be verified.
 - G. Should the Contractor refuse to prosecute the work as directed or to submit his claim as required, then the Engineer may withhold payment of all estimates until the Contractor's refusal or failure is eliminated.

8 ARTICLE 8 - EXAMINATION AND APPROVAL

- A. All work and materials shall be at all times subject to the examination and approval by the Engineer or his duly authorized representatives. The Contractor shall provide reasonable and necessary facilities for such examinations. If any work should be covered up without the approval or consent of the Engineer, if

required by him, it shall be uncovered for examination at the Contractor's expense.

9 ARTICLE 9 - DEFECTIVE WORK AND MATERIALS:

- A. Defective work and materials may be condemned by the Engineer at any time before the final acceptance of the work. The Contractor shall remove at his own expense any work or material condemned and shall rebuild and replace the same without extra cost. Previous examination will not relieve the Contractor from the responsibility for good work and materials whether overlooked by the Engineer or caused damage from any source whatsoever.
- B. Failure to conform with the above may be cause to discontinue the work, and the Engineer and the Owner in his discretion may either remedy the work or may have the contract completed by others and charge the cost thereof as money paid the Contractor.

10 ARTICLE 10 - MATERIALS, APPLIANCES AND EMPLOYEES:

- A. Unless otherwise specified, all materials shall be new, and both workmanship and materials shall be of acceptable quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.
- B. Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, tools, equipment, light, power, transportation, and other facilities necessary for the execution and prosecution of the work in an acceptable manner and at a satisfactory rate of progress. The equipment used on any portion of the work shall be such that no injury to adjacent property or highways will result from its use.
- C. The Contractor shall employ such superintendents, foremen and workmen as are careful and competent, and the Engineer may demand the dismissal of any person employed by the Contractor in, about or upon the work, who shall be guilty of misconduct or be incompetent or negligent in the due and proper performance of duties, or who neglects or refuses to comply with the directions given, and such person shall be not be employed again thereon without the written consent of the Engineer. Should the Contractor continue to employ or again employ such person the Owner may withhold all estimates, which are or may become due, or the Engineer may suspend the work, until such orders are complied with.
- D. The superintendent shall not be changed except with the consent of the Engineer, unless the superintendent proves to be unsatisfactory to the Contractor and/or ceases to be in his employ. The superintendent shall represent the Contractor in his

absence, and all directions given to him shall be as binding as if given to the Contractor. Other important directions shall be confirmed in writing to the Contractor. Other directions shall be so confirmed on written request in each case.

11 ARTICLE 11 - ROYALTIES AND PATENTS:

- A. The Contractor shall pay all royalties and license fees entailed by the use of any patented equipment, materials or methods of construction. He shall defend all suits and claims for infringements of any patent rights and shall save the Owner harmless on account thereof, including any costs, council fees or any other expense harmless to which the Owner may be put by reason of his failure to defend such suit or suits.

12 ARTICLE 12 - SUPERVISION:

- A. The Contractor shall give sufficient supervision to the work, using his best skill and attention. He shall carefully study and compare all plans, drawings, specifications and other instructions and shall at once report to the Engineer any error, inconsistency or omission which he may discover, but he shall not be held responsible for their existence or discovery.

13 ARTICLE 13 - PERMITS, LICENSES AND CERTIFICATES:

- A. The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work. He shall obtain and furnish the Engineer all required certificates for work for which certificates are issued. The Contractor shall pay all State, County, Municipal and Public Utility fees for permits, licenses, taxes, etc.

14 ARTICLE 14 - POINTS AND INSTRUCTIONS:

- A. The Contractor shall not proceed with the work until he has made timely demand upon the Engineer for, and has received from him, such reference points and instructions as may be necessary as the work progresses. The work shall be done in strict conformity with such points and instructions. Work done prior to the points and instructions given by the Engineer shall be at the Contractor's risk. The Contractor must carefully preserve benchmarks, reference points and stakes, and in case of willful or careless destruction, he will be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

15 ARTICLE 15 - RIGHT-OF-WAY AND STORAGE SPACE:

- A. The Owner shall provide the land upon which the work is to be done, with right of access thereto, but unless otherwise agreed upon, the Contractor shall provide the space and land required and access thereto for the erection of temporary construction facilities and for storage of materials.

16 ARTICLE 16 - DAMAGES TO PROPERTY:

- A. In case any direct or indirect injury is done to existing street or underground structures, sewer, mains, etc., or to public or private property of any kind or to any materials or fixtures, by or because of the work, in consequence of any act or omission on the part of the Contractor, his employees or agents, the Contractor at his own cost and expense, except when hereinafter specified otherwise, shall restore such structures, property, materials, etc., to a condition equal or similar to that existing before such damage or injury was done, by repairing, or otherwise, or as may be directed by the Engineer, or shall make good such damage or injury in a satisfactory manner.

17 ARTICLE 17 - CONTRACTOR'S LIABILITY

- A. The work in every respect, from the execution of the contract bond and during its progress until final acceptance, shall be under the charge and in the care of the Contractor and at his risk. He shall properly safeguard against any or all injury or damage to the public, any property, material or thing, except when stipulated otherwise in the specifications and shall alone be responsible for any damage or injury from his undertaking of this work to any person or persons or thing connected therewith. He shall indemnify and save harmless the Owner and all its officers, agents and employees from all suits or actions at law of any kind, including all costs, attorney's fees and any expense whatsoever in connection with this work, and shall if required, show evidence of settlement of any such action before final payment is made by the Owner.

18 ARTICLE 18 - WORKMEN'S COMPENSATION ACT:

- A. The Contractor shall accept, insofar as the work covered by this contract is concerned, the provisions of the Workmen's Compensation Act of 1915 and any supplements or amendments thereto, including any which may hereafter be passed, and shall insure his liability from the Bureau of Workmen's Compensation of the Department of Labor and Industry; and all contracts with sub-contractors shall obtain the obligation given above insuring that they likewise will be bound in like manner.

B. The Contractor shall at all times indemnify and save harmless the Owner from all claims for Workmen's Compensation which may be made by any of the employees of the Contractor or by any of the employees of any sub-contractor to whom the Contractor may have let the performance of any part of the work embraced in this contract, and the Contractor will appear for and defend the Owner against any and all such claims.

19 ARTICLE 19 - PUBLIC SAFETY:

A. During the progress of the work the Contractor shall provide watchmen and lights, fences and barriers, temporary passageways, danger warnings and detour signs, and take precautions as may be necessary to protect life and property, unless otherwise notified by the Engineer in writing.

20 ARTICLE 20 - OBSERVANCE OF LAWS:

A. The Contractor, at all times, shall observe and comply with all Federal and State laws and local ordinances and regulations which in any manner affect the conduct of the work and all such orders or decrees as exist at present and those which may be enacted later by bodies or tribunals having any jurisdiction or authority over the work, and shall indemnify and save harmless the Owner and all its officers, agents and servants against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order or decree whether by himself or his employees.

21 ARTICLE 21 - SERVING NOTICES:

A. Any notice to be given to the Contractor under this contract shall be deemed to be served if the same be delivered to the man in charge of any office used by the Contractor, or his superintendent or agent at or near the work, or deposited in the post office, postpaid, addressed to the Contractor at this last known place of business.

22 ARTICLE 22 - SANITARY ACCOMMODATIONS:

A. The Contractor shall provide and maintain in a neat and sanitary condition, such necessary accommodations for the use of his employees as may be approved by the Engineer and satisfactory to the sanitary authorities. No public nuisance shall be committed.

23 ARTICLE 23 - SUBLetting OR ASSIGNING CONTRACT:

A. The Contractor shall not sublet, sell, transfer, or otherwise dispose of the contract or any portion thereof, or of the work provided for therein, except for the furnishing of materials, or of

- his right, title or interest therein to any person, firm or corporation without the consent of the Engineer. No such assignment or subcontract, even though thus consented to, shall relieve the Contractor from his liability under the contract for the performance and completion of the work by the time and in the manner contracted for.
- B. The provisions of the contract as to performance by the Contractor shall apply to any sub-contractor, his officers, agents or employees of the sub-contractor in all respects as if he and they were employees of the Contractor and they shall be subject to the same provisions thereby as employees of the Contractor, and the work and material furnished by any sub-contractors shall be subject to the provisions as if furnished by the Contractor.
- C. The Contractor, shall as soon as practicable after executing the contract, notify the Engineer in writing of the names of sub-contractors proposed for the work and shall not employ any that the Engineer may within a reasonable time object to as incompetent or unfit.

24 ARTICLE 24 - RIGHTS OF VARIOUS INTERESTS:

- A. Whenever work being done by other contractors or forces of the Owner is contiguous to work covered by this contract, the respective rights of various interests involved shall be established by the Engineer, to secure the completion of the various portions of the work in general harmony.

25 ARTICLE 25 - DELAYS AND EXTENSIONS OF TIME:

- A. If the Contractor shall be delayed in the completion of the work by any cause beyond his control, then the time stated in the Agreement for the completion of the work may be extended by the Owner for a period equivalent to the actual number of calendar days lost by reason of any cause aforesaid. This length of extended period shall be determined and fixed by the Owner but an extension may not be allowed unless a claim therefore is presented in writing to the Engineer within seven (7) days of the date of occurrence of the delay.
- B. No allowance will be made for the expense to the Contractor due to idle equipment or forces during such delay.

26 ARTICLE 26 - FAILURE TO COMPLY WITH ORDERS, ETC:

- A. If the Engineer shall be at any time of the opinion that the Contractor is not progressing with the work as fast as necessary to insure its completion or to repair damage to public or private property or is continuing to employ or re-employ negligent or careless persons, or is conducting the work in a manner disapproved by the Engineer, or is failing to prosecute the work

- in accordance with the provisions of the specifications, or if he stops or abandons the work on any part of the construction without the written consent of the Owner, or is otherwise violating any of the provisions of the contract, then the Engineer shall report such deficiencies and order the Contractor to remedy the same.
- B. If, after ten (10) days from the date of such notice, the Contractor shall have failed to comply with said report, then the Owner may withhold all payments until the orders of the Owner are carried out, or it may suspend any or all work, or it may place additional forces, equipment, tools and materials on parts of the work at the Contractor's expense, as hereinafter specified, or it may annul the contract as hereinafter specified.
- C. In case the Owner should augment the Contractor's forces, equipment, etc., as hereinabove provided, the cost incurred in carrying on such part of the work shall be paid by the Contractor and such work shall be deemed as to be carried out by the Owner on account of the Contractor, and the Contractor shall be allowed therefor the contract price and Owner may retain the amount of the cost of such work from any sum or sums or to become due to the Contractor under this contract, but if such costs exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

27 ARTICLE 27 - SUSPENSION OF WORK:

- A. The Owner reserves the right to suspend the whole or any part of the work contracted to be done when it is deemed to be in the best interest of the Owner to do so. In case of such suspension, a proper extension of time will be allowed as provided in Article 25. If the suspension is due to no fault or neglect of the Contractor, no allowance will be made for the expense to the Contractor due to idle equipment or forces during such suspension period. Neither an extension of time, for any reason, beyond that fixed herein for the completion, nor the doing or acceptance of any part of work called for by the Contract shall be deemed to be a waiver by the Owner of the right to abrogate this Contract for abandonment or delays in the manner provided for in Article 26 of the Agreement.

28 ARTICLE 28 - ANNULMENT:

- A. The bidders to whom the Contract is awarded must begin actual work on the ground within ten (10) days from the date of executing the Contract, or obtain from the Owner an extension of time. If the Contractor fails to begin the work in accordance with any notice or notices received from the Owner, as provided in Article 26, or if the Contractor shall become insolvent or be

declared bankrupt, or commit any act of bankruptcy or insolvency, or allow any final judgment based on any claim growing out of this Contract, to stand against him unsatisfied for a period of forty-eight (48) hours, or shall make an assignment for the benefit of creditors, or from any other causes whatsoever shall not carry on the work in acceptable manner, the Owner may give notice in writing to the Contractor and his surety, of such delay, neglect or default, specifying the same and if the Contractor within a period of three (3) days after such notice, shall not proceed in accordance therewith, then the Owner shall have full power and authority, without violating the Contract, to take the prosecution of the work out of the hands of the Contractor, to appropriate or use any or all materials and equipment on the ground that may be suitable and acceptable, to enter into an agreement, without advertising for bids therefore, for the completion of said Contract according to the terms and provisions thereof, or to use such other methods as in its opinion shall be required for the completion of said contract in an acceptable manner. All costs and charges incurred by the Owner, together with the costs of completing the work under contract, shall be deducted from any moneys due or which may become due the Contractor. In case the expense so incurred by the Owner be less than the sum which would have been payable under the Contract if it had been completed by the Contractor, including the damages, then the Contractor shall be entitled to receive the difference, and in case such expense exceeds the sum which would have been payable under the Contract including the damages, then the Contractor and the Surety shall be liable and shall pay to the Owner the amount of said excess.

29 ARTICLE 29 - REMOVAL OF EQUIPMENT:

- A. In case of annulment of this Contract before its completion, for any cause whatever, the Contractor, if notified to do so by the Owner, shall promptly remove any part or all of his equipment and supplies from the site of the work, failing which, the Owner shall have the right to move such equipment and supplies at the expense of the Contractor. No equipment shall be removed from the work by the Contractor except as hereinbefore designated until the usefulness of such equipment on the work has ceased, and except with the written consent of the Engineer, otherwise such removal may be considered by the Owner as an abandonment of the work on the part of the Contractor.

30 ARTICLE 30 - ORDER OF COMPLETION AND USE OF COMPLETED PARTS

- A. The Contractor shall complete any portion of the work in such order of time as may be stated in the specifications or as the Engineer may require. The Owner shall have the right to take possession of and use any completed or partially completed portion of the work though the time for completing the entire work or portions thereof may not have expired; but such taking possession shall not be deemed an acceptance of the work so taken or used or any part thereof.

31 ARTICLE 31 - AUTHORITY OF ENGINEER

- A. The Engineer shall have full authority to decide all questions which may arise with the Contractor relative to the quality and acceptability of materials furnished and work performed, the manner, performance, and rate of progress, the interpretation of any and all Plans and Specifications and the acceptable fulfillment of the Contract on the part of the Contractor. The Engineer shall determine the amount and quantity of the several kinds of work performed and materials furnished and his decision and estimates shall be conclusive on the Contractor. Such estimates shall be a condition precedent to the right of the Contractor to receive any money due under the Contract.

32 ARTICLE 32 - PAYMENT OF LABOR AND MATERIALS:

- A. The Contractor shall pay promptly all laborers or mechanics employed on the work embraced in these specifications, as well as for all materials and before final payment is made, the Contractor shall furnish the Owner with a release signed by all persons, firms, partnerships, corporations, or bodies having furnished any material or materials for or toward the construction of said work and shall furnish to the Owner such evidence as may be required by the Owner that all labor and materials have been paid.

33 ARTICLE 33 - MONTHLY ESTIMATES

- A. As long as the work contracted for herein is executed in accordance with the provisions of this Contract and with such progress as may be satisfactory to the Owner, the Engineer on or about the last day of each month will make an approximate estimate of the amount and value of the work done and material incorporated in the work by the Contractor according to the terms of this Contract from the last day covered by the previous estimate.
- B. The Engineer may include in the estimates a reasonable amount of materials delivered at the site of the work, not to exceed

- seventy-five (75) per cent of the cost of said materials, which materials are acceptable for incorporation in the work but not used, provided however, that the Contractor shall produce original invoices certifying to the payment of such materials and shall submit to the Engineer delivery slips certifying to the delivery of such materials to the site of the work.
- C. From the total of the Engineer's estimate shall be deducted ten (10) per cent of the whole to be retained by the Owner, until after the completion of the Contract and its acceptance by the Owner, as well as previous payments and charges against the Contractor and the balance shall be the amount due the Contractor on the current estimate. These estimates will then be forwarded to the Owner and following approval of the Owner will be ordered paid.
 - D. It is understood and agreed that if the Owner at any time during the progress of the work, considered the amount withheld on the account of the above mentioned percentage in excess of the amount necessary to complete the work or necessary for the full and ample protection of the Owner then the Owner may reduce the percentage retained to an amount sufficient for its proper protection.
 - E. For contracts exceeding \$50,000 retainage shall be deducted at the rate of 10% of the amount due until 50% of the contract is completed. The sum or sums withheld after the contract is 50% completed shall be 5% of the amount due, for the remaining work. In the event of a dispute between the contracting body and the prime Contractor, which dispute is based on increased costs claimed by one prime Contractor occasioned by delays or other actions of another prime Contractor, additional retainage in the sum of one and one half times the amount of any possible liability may be withheld until such time as a final resolution is agreed to by all parties directly or indirectly involved, unless the Contractor causing the additional claim furnishes a bond satisfactory to the contracting body to indemnify such contracting body against the claim.
 - F. No estimates given, or payments made, except final certificates of payment, shall be conclusive of the performance of the contract either wholly or in part, and no estimates or payments including the final estimate or payment shall be construed to be an acceptance of defective work or improper materials.

34 ARTICLE 34 - ACCEPTANCE AND FINAL PAYMENT:

- A. At such time as the Contractor shall have the work in condition for acceptance, he shall remove his equipment, all surplus materials, rubbish and debris resulting from or connected with the work and shall notify the Engineer that the work is ready for

- final inspection. If after the final inspection the Engineer shall determine that the Contractor has completed the construction contemplated by this Contract, performed the Contract on his part, the Engineer shall make a final estimate as to the entire amount of each class of work performed and as to the value thereof, with such increases or deductions as may have been made in accordance with the terms of the Contract and such deductions on account of damages, as may be due to the Owner under the Contract, or of such additions as may be due to the Contractor, and shall certify to the Owner in writing with the aggregate amount of said final estimate at the completion of the work.
- B. No payment shall become due and payable until the Contractor shall have furnished satisfactory evidence that all labor, materials, outstanding claims and indebtedness of whatever nature arising out of the performance of the Contract have been paid. The action of the Engineer by which the Contractor is to be bound and work concluded, according to the terms of the Contract, shall be evidence of the aforesaid certificate and final payment, all prior certificates or estimates upon which payments have been made being partial payment and subject to correction in the final payment.
- C. Contracts exceeding \$50,000 shall be substantially complete if construction is sufficiently completed in accordance with Contract Documents and certified by the Engineer of the contracting body, as modified by change orders agreed to by the parties, so that the project can be used, occupied or operated for its intended use. In no event shall a project be certified as substantially complete until at least 90% of the work on the project is completed. The Contractor shall be paid in full except as provided in Article 33 within thirty (30) days following the date of substantial completion, less only one and one half times such amount as is required to complete any then remaining uncompleted, minor items, which amount shall be certified by the Engineer and upon receipt by the contracting body of any guarantee bonds required, in accordance with the Contract Documents, to insure proper workmanship for a designated period of time. The certificate given by the Engineer shall list in detail each and every uncompleted item and a reasonable cost of completion. Final payment of any amount so withheld for the completion of the minor items shall be paid forthwith upon completion of the items in the certificate of the Engineer. Any amount due after substantial completion shall bear interest at the rate of 6% per annum.
- D. The acceptance of the final payment, by the Contractor, made as aforesaid, shall operate as and be a release to the Owner and

every member and agent thereof and from all claims and liabilities to the Contractor for anything done or furnished, for or relating to the work or affecting the work, but this final payment shall not be considered relieving the Contractor from his indemnity obligation as described in Article 17.

35 ARTICLE 35 - CORRECTION OF WORK AFTER FINAL PAYMENT:

- A. Neither the final estimate nor final payment nor any provision in the Contract shall relieve the Contractor of the responsibility for faulty materials or workmanship, and he shall remedy without cost to the Owner any defects due thereto and pay any damage resulting therefrom, which shall appear within one (1) year from the date of acceptance. (See Instructions to Bidders, Paragraph 4 - Bonds)

36 ARTICLE 36 - QUANTITIES:

- A. The quantities given for unit price work are to be taken as approximate only. The unit price submitted will be applied to the completed work actually done, and the Contractor paid accordingly. Any variation between the actual quantities of work as constructed and the estimated quantities of work as given in the bidding sheet will be paid for at the unit price for that particular class of work.

37 ARTICLE 37 - DAMAGE ON ACCOUNT OF HIGH WATER, ETC:

- A. The Contractor shall also hold himself responsible for all damage done to his work by heavy rains or floods, and he shall take all reasonable precautions to provide against damages by heavy rains to adjoining property by building such temporary channels to carry off the storm water as the nature of the work may require.

38 ARTICLE 38 - ENGINEER'S DECISION:

- A. The Engineer shall have full authority to decide all questions which may arise with the Contractor relative to the quality and acceptability of materials furnished, and work performed, the manner, performance, rate of progress, the interpretation of any or all plans and specifications and the acceptable fulfillment of the Contract on the part of the Contractor. He shall determine the amount and quantity of the several kinds of work performed, the manner, performance, rate or progress, the interpretation of any or all plans and specifications and the acceptable fulfillment of the Contract on the part of the Contractor. He shall determine the amount and quantity of the several kinds of work performed and the materials furnished, his decisions and estimates shall be

- conclusive on the Contractor, and such estimates shall be a condition precedent to the right of the Contractor to receive any money due the Contractor.
- B. The decisions of the Engineer as to all questions arising under this Contract shall be binding and conclusive on the Contractor.

39 ARTICLE 39 - TIME FOR COMPLETION

- A. The time to be allowed for completion of the Contract from the date of the notice to proceed is specified by the Owner to be thirty (30) days.

40 ARTICLE 40 - DAMAGES FOR NOT COMPLETING WITHIN TIME LIMIT

- A. Where actual damages for any delay in completion are impossible of determination by reason of the Owner's election not to terminate the right of the Contractor to proceed, the Contractor and his sureties shall be liable for and shall pay to the Owner the sum of **Five Hundred Dollars (\$500.00)** per day as fixed, agreed, and liquidated damages until the work is completed or accepted: Provided that the Owner may accept the work if there has been such a degree of completion as will in the Owner's opinion make the project reasonably safe, fit, and convenient for the use and accommodation for which it was intended. In such case, the Contractor shall not be charged with liquidated damages, but the Owner may assess the actual damages caused by such delay.

41 ARTICLE 41 – PREVAILING MINIMUM WAGE SPECIFICATIONS:

N/A

42 ARTICLE 42 - NONDISCRIMINATION IN EMPLOYMENT

- A. The Contractor agrees that he will comply with the provisions of the Pennsylvania Human Relations Act in providing equal employment opportunities in connection with all work performed by him at the job site pursuant to this Contract. The Contractor, therefore, agrees:
1. The Contractor will not discriminate nor permit discrimination by his agents, servants, or employees against any employee or applicant for employment with regard to hiring, tenure of employment, promotion, terms, conditions or privileges or employment, at the job site covered by this Contract, because of race, color, religion, age or national origin, and will take such affirmative action as is hereinafter set forth to prevent same.
 2. The Contractor will, in all publications or advertisements for employees to work at the job site covered by this Contract, placed by or on behalf of the Contractor, state that all

- qualified applicants will receive consideration for employment without regard to race, color, religion, age or national origin.
3. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other Contract understanding, a notice to be provided by the Pennsylvania Human Relations Commission, advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to his employees and applicants for employment.
 4. The Contractor shall supply the contracting agency of the state with a periodic report, called a "Compliance Report", relating to work performed at the job site under this Contract as may be required by the Pennsylvania Human Relations Commission. The Commission shall at all times have access to the employment records of said Contractor for purposes of investigation to ascertain compliance with the rules, regulations and orders of the Pennsylvania Human Relations Commission, relating to discrimination.
 5. The Contractor shall insert the provisions of Paragraphs A of this Article in all Sub-Contracts which are entered into by the Contractor under this Contract requiring work to be done at the job site, as covenants to be binding upon such Sub-Contractors.
 6. Compliance by the Contractor with Paragraphs A.2 and A.3 of this Article shall discharge the Contractor from any liability hereunder, relating to the non-discriminatory provisions of this agreement.

43 ARTICLE 43 - THE LIABILITY OF SUB-CONTRACTOR IN EMPLOYMENT

- A. The Sub-Contractor of the Contractor under Article 1, Paragraph E above shall have the same responsibilities and obligations as the Contractor to comply with the provisions of Article 42, Paragraphs A.1, A.2 and A.3 hereof and shall be subject to the applicable penalties for failure to comply as hereinafter set forth in Article 44.

44 ARTICLE 44 - PENALTIES FOR FAILURE TO COMPLY

- A. It is hereby agreed that the failure to comply with the foregoing requirements shall constitute a substantial breach of this contract.
- B. In the event the Pennsylvania Human Relations Commission, after investigation and hearing, shall determine that the Contractor or Sub-Contractor, as the case may be, has failed to

- comply with any of the provisions of Article 42, Paragraphs A.1, A.2 and A.3 hereof, the Commission in addition to issuing any order it deems appropriate pursuant to Section 9 of the Pennsylvania Human Relations Act, shall certify such findings to the Contracting Agency of the State, with recommendation for termination of the Contract of the Sub-Contractor's, as the case may be, or with a recommendation that such Contractor be declared ineligible for any further public works contracts or sub-contracts for a period of not more than two (2) years from the date of such recommendations.
- C. Should the Contracting Agency of the State adopt the recommendation to terminate the Contract, written notice of this fact shall be given to the Contractor by registered mail addressed to the Contractor's registered office in Pennsylvania, in which event all obligation on the part of the Contracting Agency to perform this Contract shall cease, save only the obligation to pay the Contractor the sum due, including any retained amounts, for all articles delivered or work done, or for all articles or equipment for which the Contractor may be liable, to the date of such termination.
 - D. Should the Contracting Agency of the State adopt the recommendation to direct the Contractor to terminate a sub-contract entered into by the Contractor under this Contract, written notice of this fact shall be given to the Contractor by registered mail addressed to the Contractor's registered office in Pennsylvania, and it shall then be the obligation of the Contractor to terminate such sub-contract, pursuant to said written notice.
 - E. Should the Contracting Agency of the State adopt the recommendation to declare the Contractor or Sub-Contractor, as the case may be, ineligible for further public works contracts or sub-contracts, written notice of this fact and of the duration of such period of ineligibility shall be given to the Contractor or Sub-Contractor by registered mail addressed to the Contractor's or Sub-Contractor's registered office in Pennsylvania.

45 ARTICLE 45 - RIGHT OF APPEAL

- A. From any order of the Pennsylvania Human Relations Commission, the Contractor or Sub-Contractor, as the case may be, shall have a right of appeal as in other cases provided by law, and the Contracting Agency of the State shall not act upon the recommendation of the Commission specified in Article 44, Paragraph B above until the Contractor or Sub-Contractor has exhausted the right of appeal provided by the law, or the time for such appeal shall have expired.

46 ARTICLE 46 - INSPECTION

- A. Representatives of any Federal and State Government having jurisdiction shall have access to the work wherever it is in preparation of progress and the Contractor shall provide proper facilities for such access and inspection.

47 ARTICLE 47 - FEDERAL LABOR STANDARDS

- A. The Contractor and all Sub-Contractors shall comply with the Regulations of the Secretary of Labor made pursuant to the Anti-Kickback Act of June 30, 1940, 40 U.S.C. 276 (C) and any amendments or modifications thereto. The Contractor and all Sub-Contractors shall furnish the Owner with weekly statements of Compliance. In case of Sub-Contracts, the Contractor shall cause appropriate provisions to be inserted on any Sub-Contracts for the work which he may let to insure compliance with said Anti-Kickback Act by all Sub-Contractors subject thereto, and the Contractor shall be responsible for the submission of all Statements of Compliance required of Sub-Contractors by said Anti-Kickback Act except as the Secretary of Labor may specifically provide for reasonable limitations, variations and exemptions from the requirements thereof. These regulations are part of this Contract and are included in this Specification.

48 ARTICLE 48 - PLANS AND SPECIFICATIONS FURNISHED TO CONTRACTOR

- A. After the Contract has been executed, the Contractor will be furnished two (2) sets of the Contract Plans and Specifications, free of cost. At the request of the Contractor, additional copies of the Plans and/or Specifications will be furnished to the Contractor at the cost of reproduction.
- B. The Contractor shall furnish each of his Sub-Contractors, manufacturers and materialmen such copies of the Contract Plans as are required for the work.

49 ARTICLE 49 - DRAWINGS TO BE FURNISHED BY CONTRACTORS

- A. The Contractor shall furnish the Engineer detailed drawings of structures and equipment which are to be incorporated into permanent construction, and which are not furnished by the Engineer. Such tracings and prints, as required, shall become the property of the Owner.
- B. The Contractor shall provide the Engineer with information and drawings showing the arrangement and location of temporary structures, bracing, sheeting, and equipment, and the Contractor shall not erect or install any such temporary structures without the approval of the Engineer.

- C. The Contractor shall furnish shop and setting drawings for all fabricated materials which are to be incorporated into permanent construction. Such shop and setting drawings shall be submitted to the Engineer for approval, in accordance with the Specifications and the provisions of the Contract.

50 ARTICLE 50 - CONTRACTORS TO CHECK PLANS AND DATA

- A. The Contractor is required to check all dimensions and quantities of the Plans or schedules given to him by the Engineer and shall notify the Engineer of all errors, omissions, conflicts, and discrepancies found therein which may be discovered by examining and checking the Plans. He will not be allowed to take advantage of any error or omission in these Specifications, nor in the Plans or schedules, as full instructions will be furnished by the Engineer should such errors or omissions be discovered, and the Contractor shall carry out such instructions as if originally specified. Figures marked on the Plans shall, in general, be followed in preference to scale measurements. Large-scale drawings shall, in general, govern conditions already established. The Contractor shall depend entirely on measurements by himself, scaled and figured dimensions to the contrary notwithstanding, but no deviation from the specified dimensions will be allowed unless authorized by the Engineer.

51 ARTICLE 51 - APPROVAL OF SHOP DRAWINGS

- A. The approval of drawings submitted by the Contractor, shall not constitute a waiver of any of the requirements of this Contract, nor shall the Owner be compelled to accept any structure, equipment, or apparatus unless it passes all the tests and requirements of these Specifications. The approval of drawings shall be general and shall not relieve the Contractor of responsibility for the accuracy of such drawings, nor for the proper fitting and construction of the work.
- B. Checking of shop drawings is only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to the fabrication process or to techniques of construction, and or the coordination of the work of all trades.
- C. The procedure in seeking approval of drawings being submitted by the Contractor shall be as follows:
- D. The Contractor shall submit four (4) prints of the drawings to the Engineer for his approval. The drawings shall be accompanied by a letter of transmittal, in duplicate, containing the name of the project, the name of the Contractor, the number of drawings,

- titles and other requirements. Unless otherwise specified, such drawings shall be submitted at least fourteen (14) calendar days before they are required for fabrication of the materials by the Contractor or supplier. This time requirement may be reduced only by written authorization of the Engineer.
- E. When a drawing is acceptable to the Engineer, it will be stamped "Approved", be dated, and two (2) copies thereof will be returned to the Contractor by letter. The Contractor shall then insert date of the approval on the tracing and promptly furnish the Engineer with five (5) additional prints of the approved drawings.
 - F. When a drawing is generally acceptable to the Engineer, but requires correction of minor details, the Engineer will note thereon the corrections required, stamp the drawings "Approved as Corrected" and return two (2) copies to the Contractor. The Contractor shall thereupon make the corrections indicated and promptly furnish the Engineer with five (4) additional prints of the approved drawings.
 - G. Should a drawing be unacceptable to the Engineer, he will stamp the drawing "Revise and Resubmit" and will return two (2) copies to the Contractor with the portions to be revised indicated. The Contractor shall make the revisions and resubmit prints of the revised drawings in quadruplicate, for approval.
 - H. Should a drawing be submitted which is unacceptable to the Engineer or which does not conform to the Plans and Specifications, the Engineer will note the unsatisfactory portions, stamp the drawing "Not Approved" and return two (2) copies to the Contractor. The Contractor shall make such revisions as are required, and again submit four (4) prints of the corrected drawings for approval.
 - I. The Contractor shall revise and resubmit the drawings until approval is obtained.
 - J. Shop drawings shall be complete to permit adequate checking. All drawings relating to a specific piece of equipment, or to a specific phase of building construction, shall be incorporated into one shop drawing submission. Shop drawing submissions, which do not conform to the above requirements, will be rejected.

52 ARTICLE 52 - ENGINEER SOLE JUDGE OF QUALITY AND SUITABILITY

- A. All materials becoming a part of the permanent construction, as called for on the Plans and in the Specifications, shall be first-class in every respect and subject to the approval of the Engineer, who shall be sole judge of their quality and their suitability for the purposes for which they are to be used. He shall be notified whenever the preparation or manufacture of any material for the work is commenced. No material shall be shipped to the work site, mill or plant before it has been

inspected and accepted, unless inspection by the Engineer has been waived. If any material brought on the ground for use in the work is condemned by the Engineer after the arrival at the site as unsuitable or not in conformity with the Specifications, the Contractor shall immediately remove and replace such material, even though it may have been passed previously by the inspector as acceptable.

53 ARTICLE 53 - SAMPLES

- A. The Contractor shall submit to the Engineer for approval typical samples of materials and appliances. The samples shall be properly identified by tags and shall be submitted in advance of the time when they are to be incorporated into the work so that rejections will not cause delay. A letter of transmittal, in duplicate, from the Contractor requesting approval must accompany all such samples.

54 ARTICLE 54 - INSPECTION AND TESTING

- A. At his own expense the Contractor shall furnish all tests, performed by a reliable testing laboratory approved by the Engineer as directed in the Specifications or Contract Documents and whenever directed to do so by the Engineer.
- B. The Contractor shall retain, at his own expense, a qualified testing laboratory, which shall make tests of the material used in concrete, proportioning of concrete mixes and tests on concrete as the work progresses at the direction of the Engineer. Four (4) copies of all tests shall be supplied from the testing laboratory to the Engineer.
- C. All expense caused by the inspection of any material or equipment by the Engineer shall be borne by the Contractor when certified by the Engineer and by the Owner's representative. The Engineer is the sole judge if it is necessary that any materials or equipment be inspected at the mill.
- D. Satisfactory documentary evidence that material has passed the required inspection and testing must be furnished to the Engineer prior to its incorporation in the work, and rejected materials must be promptly removed from the premises.

55 ARTICLE 55 - WARRANTIES

- A. Upon completion of all work including general site restoration, piping, etc., the Contractor shall guarantee all work for a period of one (1) year. Beginning of this period shall be from the date the installation is approved and operational.
- B. The manufacturer shall also agree in writing at the time of approval submittal that he shall guarantee each individual product including all accessories for a period of twelve (12)

- months from date it is placed in operation. This guarantee shall read as follows: "We [product manufacturer] guarantee [name of product] to be free of any and all defects due to material or workmanship for one (1) year from [put in date]. We agree to repair or replace at no expense to Owner defective equipment within thirty (30) days upon written notice".
- C. The Owner's personnel will provide routine maintenance following instructions by the product manufacturer. Routine maintenance by Owner's personnel and in accordance with manufacturer's recommendations shall not under any conditions void warranty.

56 ARTICLE 56 – PROJECT SAFETY COMPLIANCE

- A. The Engineer shall not be responsible for the Contractor's means, methods, techniques, sequences or procedures of construction or the safety precautions and programs incident thereto.
- B. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work required under the Contact documents.
- C. The Contractor shall take all necessary precautions and provide protection to prevent damage, injury or loss to all employees and other persons and organizations who may be affected thereby.
- D. The Contractor shall take all necessary precautions and provide protection to prevent damage, injury or loss to all work and materials to be provided, whether in storage on or off the site.
- E. The Contractor shall take all necessary precautions and provide protection to prevent damage, injury or loss to other property at the site adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.
- F. The Authority Engineer shall not be responsible for monitoring the Contractor's compliance with any laws or regulations applicable to the furnishing and performance of the work including safety precautions.
- G. The Contractor further indemnifies and holds the Authority Engineer, its successors and assigns, harmless from any and all claims, suits or demands arising out of the Contractor's failure to comply with the specific conditions of this Article.

END OF SECTION

SPECIAL CONDITIONS

- A. It is intended by the execution of this Contract to perform maintenance and repairs to the sanitary sewer system in accordance with the plans and specifications included in this project.
- B. Prices shown on the proposal sheet shall include all labor, materials and equipment necessary to complete the work in a satisfactory manner, including restoration and cleanup.
- C. All construction equipment operated on improved municipal streets and state highways shall be equipped with rubber tires or be otherwise insulated from the paving.
- D. During the construction procedure, the Contractor shall take all necessary precautions that may be required to prevent any physical damage or changes from occurring beyond the limits of the work or to buildings or structures adjacent to the proposed construction.
- E. The Contractor shall maintain sufficient barricades and other warning signs during the progress of this work and both day and night. The Contractor shall maintain sufficient barricades, lights, danger signals and other devices for the safety of the public and the work must be conducted at all times in such a manner as to offer the least inconvenience to adjacent property owners.
- F. The Contractor shall be responsible, beyond the limits of work, for any and all damage to the existing structures due to faulty construction techniques.
- G. Areas to be occupied by Contractor: The Contractor shall confine his operation to the limits of work as shown on the plan. The Contractor shall be responsible for damage resulting from trespassing upon adjacent lands, or damages to adjacent lands or property resulting from action of his agents and his employees. The Contractor shall indemnify the Owner against any action brought as a result of the performance of this Contract. The Contractor shall diligently and promptly report in writing to the Owner each such claim of injury or trespass asserted.
- H. Permits may be required in the amounts dictated by municipal ordinances.
- I. The Contractor shall be responsible for cleaning his refuse. Final inspection and payment will not be considered until this cleaning has been performed.
- J. Temporary electric and water services required for construction shall be provided by the Contractor.
- K. Intoxicating Beverages or Substances: At no time shall the Contractor or his workmen deliver or consume or use intoxicating

- beverages or substances of any kind during the daily work period.
- L. Storage: The Contractor shall confine his apparatus, the storage of materials and the operations of his workmen, to limits indicated by law, ordinances, permits or directions of the municipality and shall not unreasonably encumber the premises with his materials.
 - M. Toilet Facilities: Ample toilet facilities shall be furnished and maintained in strict conformity with State and local county health laws by the Contractor for the use of his employees, the Engineer and the Inspector.
 - N. Claims: The successful bidder to whom the Contract is awarded agrees hereby to indemnify and save harmless the municipality, Authority and/or any of its employees from all suits, claims of any character, time and description brought for or on account of any injuries or damages received or sustained by any person persons, or property by or from the successful bidder or by or in consequence of any neglect in safeguarding the work or in the performance of the work, or through defective workmanship or materials or by or on account of any act, omission or misconduct of the successful bidder or any of his representatives, servants or employees.
 - O. Insurance: Insurance certificates, as follows, in a form satisfactory to the Authority Solicitor shall be submitted at the time of executing the Contract:
 1. Statutory Workmen's Compensation;
 2. Public Liability with contractual coverage in the amount of \$50,000/\$1,000,000;
 3. Property Damage in the amount of \$500,000/\$1,000,000 and \$100,000 respectively.
 - P. Contractor shall comply with the Federal Occupational Safety and Health Act of 1970 (OSHA) including proper records keeping and reporting.
 - Q. Contractor shall be responsible for maintaining all construction improvements for a period of one year from the date of completion and shall furnish a Performance and Maintenance providing security to guarantee such maintenance.
 - R. Non-Collusion Affidavit: The Non-Collusion Affidavit must be submitted along with the Bid proposal or the bid will be held to be invalid.
 - S. Compliance - Contractor shall comply with the Architectural Barriers Act of 1968 and Section 504 of the Rehabilitation Act of 1973; PA Act 235 of 1965, as amended, Universal Accessibility Act, and American's With Disabilities Act (ADA) of 1990.
 - T. "Or Equal" Clause - Whenever an item is specified by a manufacturer's name and model number, the Contractor may

- use a substitute of equal or better quality as approved by the Engineer.
- U. Maintenance & Protection of Traffic - The Contractor shall provide adequate barricades, signage, flagmen and warning devices for the free and safe movement of vehicular and pedestrian traffic. All warning devices shall meet the approval of the Engineer. All warning devices shall meet the approval of the Engineer. Inadequate warning devices must be corrected prior to start of next workday. Road closures and detours must receive prior approval of the Engineer.
- V. No work not authorized by the project manager in writing will be considered for any payment. This includes additional main line piping, inlets, manholes, paving and general restoration of the project areas, etc.
- W. Incidental Work: Incidental work is an additional obligation to other work specified as payment items and is not directly payable. The work is to be included in the contract unit prices for the items of work specified and shall include, but is not limited to, all labor, equipment, materials, services and the following:
1. All excavation work required for the project and the satisfactory disposal of the material offsite in a legal manner.
 2. All required saw-cuts, pumping and dewatering work, bypass pumping, temporary connections, permanent connections of existing sanitary sewers in work areas, and testing of all new lines for infiltration/exfiltration.
 3. Cutting and removal of existing sewers to be replaced, including live laterals where encountered in work areas. Additional lengths of pipes removed beyond specified limits on main line and lateral lines, all necessary plugs, stoppers, adapters, fittings, joints, etc. for adapting new pipe to existing pipe, reducers, enlargers, etc.
 4. All water, power, temporary facilities and project clean-up.
 5. Hand work, cleaning of manholes, grade or location adjustments of new pipes, etc.
 6. Pipe bedding, etc.
 7. Storm sewer construction beyond specified work limits for adjustment purposes, or for the convenience of the contractor.
 8. Locating all existing utilities including water, gas and sanitary sewers within the work area and bracing and shoring of the same as required.
 9. All sheeting, shoring and bracing as required and all safety provisions applicable to the work.
 10. Re-paving and/or restoration of disturbed areas outside of the specified pay limit width.
 11. Supervision, layout and all field engineering.

12. The costs of all permits, compliance with regulations and costs of bonds as required.
- X. Steel Products: Contractor agrees that any steel products used or supplied in the performance of the contract or any subcontractors thereunder shall be from steel made in the United States in compliance with the "Steel Products Procurement Act" of March 3, 1978.

END OF SECTION

PENNSYLVANIA ONE CALL SYSTEM



GOING TO DIG? Pennsylvania Act 287

Requires That You
Notify the Utilities
In The Political
Subdivision
3 Working Days
In Advance.
We're Trying
To Make It
Just A
Little Simpler
For You!

Want to stop long waits while utility companies come out and locate their lines or repair the line just broken because they **weren't called?** **PLAN AHEAD AND PREVENT COSTLY DELAYS.** **YOUR TIME IS VALUABLE.** **IT'S THE BEST INSURANCE YOU HAVE!** **CALL BEFORE YOU DIG!** **800-242-1776**, and give us your work location. As detailed on the first page: if you have this ready when you call, the entire process will take less than 2 minutes of your time.

We will send this information to the **PARTICIPATING** utilities immediately and give you a work location serial number as proof of your call under the state law and a list of our participants involved in your work area. But remember we notify only **MEMBER** utilities! The member utilities in that municipality will locate their facilities and mark them with the appropriate stakes, flags, spray paint or spray chalk.

The colors represent:

| | | |
|---------------|-----------|-----------------------|
| RED | -- | POWER |
| YELLOW | -- | GAS |
| BLUE | -- | WATER |
| ORANGE | -- | COMMUNICATIONS |
| GREEN | -- | SEWER |

THAT'S ALL THERE IS TO IT! Our computerized communications system will forward the information almost as quickly as you hang up the phone to the appropriate participating utilities. You must contact all others directly. Remind them that **they** should participate too!

So remember, if you are planning to dig, bore, blast or demolish in Pennsylvania call our number. It's toll-free! And the locating service is at no cost to **YOU!** We are a non-profit organization supported by our participants.

PENNSYLVANIA ONE-CALL SYSTEM, INC.

1-800-242-1776

TECHNICAL SPECIFICATIONS

SECTION 02734
SANITARY SEWER CLEANING

1 PART 1 – GENERAL

1.1 DESCRIPTION

A. Work included

- 1. Removal of all sludge, mud, sand, gravel, rocks, bricks, grease, roots and protruding laterals from the sanitary sewer pipes in the areas delineated using the equipment specified herein.**

1.2 QUALITY ASSURANCE

- A. 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 the proper performance of the work of this Section**

2 PART 2 – MATERIALS

- A. Not Used.**

3 PART 3 – EXECUTION

3.1 EQUIPMENT

- A. Equipment for cleaning shall include, but is not limited to:**

- 1. Rodding Machine: Sectional rodding machine with 36 inch, 39 inch or 48 inch sectional rods either 5/16 inch or 3/8 inch diameter - hydraulically or mechanically powered.**
- 2. Bucket Machine: 10.5 hp up to 100 hp with a minimum bucket size of 6 cubic feet.**
- 3. High Velocity Water Machine: Air- or water-cooled power plant; sewer cleaning hose 3/4" minimum with operating pressure of 2,000 psi at the pump, with a minimum hose length of 450 feet.**
- 4. Hydraulically Propelled Devices/Cleaning Tools: shall include cutting equipment of 8" and 10" pipe.**

- B. Equipment for debris removal is to include, but is not limited to:
1. Vacuum machines
 2. Trash pumps
 3. Bucket machines used for cleaning may also be used to remove the debris from the sewers.

3.2 CLEANING OPERATION

- A. Contractor shall be solely responsible for locating and opening all sanitary sewer manholes to access sewer mains.
- B. In the event that a sanitary sewer manhole cannot be opened, the Contractor shall be solely responsible for employing extraordinary measures necessary to open said manhole lid.
- C. The actual cleaning operation and the type of equipment required is to be determined by the size, condition and the location of the pipe to be cleared. Conditions in most cases may require the use of more than one type of equipment or combination of more than one piece or type of equipment as noted in Section 3.1 – Equipment above.
- D. Contractor shall be responsible for supplying all necessary equipment and labor in order to conduct the cleaning as specified herein.
- E. Debris is to be retrieved at each manhole and removed from the site, and in no case is debris to be permitted to flow beyond the manhole downstream from the line cleaning area

3.3 DISPOSAL OF DEBRIS

- A. The contractor will be responsible to ensure the proper disposal of all debris removed from the sanitary sewer lines and manholes in accordance with all state and federal regulations.

3.4 ADDITIONAL CONDITIONS

- A. The contractor shall execute his work in the presence of an inspector furnished by the Authority during the work hours of the day, unless specifically directed otherwise.
- B. The contractor or the contractor's foreman shall give his personal supervision to the faithful prosecution of the work, and shall have full authority to supply men, material and labor material.

3.5 LIMITS OF WORK

- A. Refer to the Drawings for limits of work.**

3.6 RESTORATION

- A. After completion of each day's work, the work area and all areas affected by the day's work are to be thoroughly cleared and left clean and in good order and fit for travel.**
- B. Upon completion of the project, all areas disturbed by the contractor are to be restored to their original condition.**

4 PART 4 - MEASUREMENT AND PAYMENT

- A. Payment for sanitary sewer main cleaning shall be based on the total quantity of linear feet of sewer cleaned, measured from center of manhole to center of manhole.**
- B. Payment for manholes cleaned shall be measured by each manhole actually cleaned.**
- C. This payment item includes all equipment, labor and materials.**

END OF SECTION

HOTSPOTS PER DISTRICT

| Year 1 (2020) | Manhole ID | Location |
|--|---------------------|--|
| District 1: Lemon Street Pump Station | MH 1-48 to MH 1-65 | Kirk Ln from Roberts Rd to Eastwood Rd |
| | MH 1-55 to MH 1-49 | Eastwood Rd |
| | MH 1-27 to MH 1-28 | Roberts Rd |
| | MH 1-14 to MH 1-16 | Carlton Place |
| | MH 1-39A to MH 1-38 | Evergreen Ave |
| | MH 1-37 to MH 1-38 | Providence Rd |
| Year 2 (2021) | | |
| District 2: Valley View Pump Station | MH 2-7 to MH 2-9 | 2nd Ave from Sandy Bank Rd to Maple Ave |
| | MH 2-15A to 2-15D | Oakview Dr |
| | MH 2-45 to MH 2-52A | Dash Ave to 421 Valley View (rear of property) |
| District 8: Farnum Road/CDCA | MH 8-26 to MH 8-4 | Farnum rd |
| District 10A: Toft Woods | All Manholes | Entire District |
| Year 3 (2022) | | |
| District 4: Braves Trail Pump Station | All Manholes | Entire District |
| District 5: Media Station Pump Station | All Manholes | Entire District |
| District 6: Bortondale Pump Station | All Manholes | Entire District |
| Year 4 (2023) | | |
| District 3: Winter St Pump Station | All Manholes | Entire District |

ATTACHMENT “C”

UPTSA PUMP STATION DATA
(TRIBUTARY TO SWDCMA)



ATTACHMENT C

UPTSA PUMP STATION DATA (TRIBUTARY TO MTS A CHESTER CREEK INTERCEPTOR)

| | Name | # of Pumps | Permitted Capacities | | Present Flows | | Projected Flows | | Notes |
|---|--------------|------------|--|---------------------------------|---------------------------|---|-------------------------------------|--|-------|
| | | | Annual Average Permitted Capacity (gpd)* | Hydraulic Design Capacity (gpm) | Annual Average Flows(gpd) | Maximum Daily Flows(gpm)** Max Daily Flow/1440 | 2 Year Projected Maximum Flow (gpd) | | |
| 1 | Bortondale | 4 | 144,000 | 300 | 59,062.50 | 205 | 63,787.50 | estimated annual avg. flows -not metered | |
| 2 | Letitia Lane | 2 | 4,320 | 9 | 1,575.00 | 5 | 4,320 | estimated annual avg. flows -not metered | |

*Annual Average Permitted Capacity was calculated as 1/3 of the Hydraulic Design Capacity unless otherwise noted in permit/design documents

**Peak instantaneous flow data is not currently available to the Upper Providence Sewer Authority and the above table incorporates maximum daily flows shown in gallons per minutes.

| | EDU's | Estimated Average Daily Flow (GPD) | Peak Flow (ADF x 5) |
|--------------|-------|------------------------------------|---------------------|
| Bortondale | 225 | 59,062.50 | 295,312.50 |
| Letitia Lane | 6 | 1,575.00 | 7,875.00 |

Note, the total number of lots within the Bortondale sewer area is 229, however, the total amount of treated EDU's is 225.

Pump Station Condition: UPTSA contracts an outside firm to maintain all pump stations within the Township. The firm employs a PA Certified Waste Water Treatment Plant Operator who is responsible for pump station maintenance and emergency issues affecting the pump stations or tributary system. It is our understanding that the condition of the pumps and associated equipment are in good working order and emergency issues are addressed immediately.