



October 8, 2024

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CONTRACT NO. 1793

SITE DEMOLITION CONTRACT II

ADDENDUM NO. 1

Arletta Scott Williams
Executive Director

Douglas A. Jackson, P.E.
*Director
Operations & Maintenance*

Michelle M. Buys, P.E.
*Director
Environmental Compliance*

Kimberly N. Kennedy, P.E.
*Director
Engineering & Construction*

Karen Fantoni, CPA, CGMA
*Director
Finance*

Michael Lichte, P.E.
*Director
Regional Conveyance*

Jeanne K. Clark
*Director
Governmental Affairs*

Julie Motley-Williams
*Director
Administration*

All bidders bidding **Contract No. 1793** shall read and take note of this **Addendum No. 1**. The Contract Documents for **Contract No. 1793 – Site Demolition Contract II** are hereby revised and/or clarified as stated below.

Acknowledgement of Contract No. 1793; Addendum No. 1

The Acknowledgement attached to **Addendum No. 1** is to be signed and returned immediately via email to **Kathleen P. Uniatowski** at contract.clerks@alcosan.org and acknowledged with Bidder's Proposal.

Michael Lichte, P.E.
Director – Regional Conveyance

ACKNOWLEDGEMENT OF
CONTRACT NO. 1793 SITE DEMOLITION CONTRACT II

ADDENDUM NUMBER 1

FIRM NAME: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

OCTOBER 8, 2024

CONTRACT NO. 1793 SITE DEMOLITION CONTRACT II

ADDENDUM NO. 1

OCTOBER 8, 2024

CONTRACT NO. 1793

SITE DEMOLITION CONTRACT II

ADDENDUM NO. 1

A. Contract Documents

1. Article 1

- a) Added item C.28 - 15" Combined Sewer Point Repair

2. Article 2

- a) Bid due date is revised from October 15, 2024 at 11:00 AM to October 31, 2024 at 10:00 AM
- b) Modified item description for Item No. 7 - Demolition and Removal of Existing Concrete Traffic Barriers.
- c) Modified item description for Item No. 8 - Erosion and Sedimentation Control - All AS1 Demolition Sites to include the additional vegetation trimming and seeding.
- d) Added item description for C.28 - 15" Combined Sewer Point Repair

3. Technical Specifications

- a) Updated 33 01 30 - Cured-In-Place Sewer Lining based on PWSA comments.

- b) Added 33 31 11 – Public Sanitary and Storm Sewer Piping to account for the new point repair item.

4. Drawings

- a) Updated to add the vegetation trimming and concrete barrier relocation.

B. Attachments

1. Pre-Bid Meeting Minutes
2. Pre-Bid Site Meeting Minutes
3. Article's 1 & 2
4. Technical Specification Sections 33 01 30 & 33 31 11.
5. Revised Drawings 000-DM-101, 000-DM-103, AS1-DM-102 & AS1-DM-202



CONTRACT 1793 – SITE DEMOLITION CONTRACT II

PREBID MEETING MINUTES Wednesday September 25, 2024 10:00AM Microsoft Teams Video Conference

INTRODUCTIONS AND KICKOFF

Dan Sharek – ALCOSAN Manager of Capital Projects, Conveyance
Joe Sparbanie - ALCOSAN Project Engineer (PM)
Jeff Livezey – ALCOSAN Construction Supervisor
Jeff Lenner – Mott MacDonald Project Designer
Mike Maruschak – Hatch CM

Introduced but not present:

Michael Lichte – ALCOSAN Director of Regional Conveyance
Kim Kennedy – ALCOSAN Director of Engineering and Construction
Suzanne Thomas – ALCOSAN Chief Procurement Officer

MEETING INTRODUCTIONS

The Pre-Bid Meeting was recorded for record purposes and for compiling minutes, but is not planned for distribution. The information provided in the meeting was intended to introduce the project details to potential bidders. Questions and requests for clarifications must be submitted in writing prior to the deadline for questions to be officially answered in an issued addendum.

A list of attendees for this meeting was created based on individual's inputs (name/company/phone number/email address) in the Microsoft Teams Chat function or via email to joseph.sparbanie@alcosan.org. Participants that did not supply this information were not accounted for in the attendee list.

This agenda was available for your download in the chat.

MBE/WBE REQUIREMENTS

Article 2 Section 2.28 and Article 1 – Pages 1-18 to 1-22. MBE/WBE requirements in the Contract urge bidders to participate in meeting the 10-25% goal. ALCOSAN accepts DBE certification from the Port Authority, Allegheny County Department of General Services and PennDOT. Any other certification will be reviewed on a case by case basis. Lack of submittal of MBE/WBE documentation is possible cause for rejection of the bid.

The PA UCP (www.paucp.com) site is a good resource to find companies.

ALCOSAN requires the submittal of a monthly MBE/WBE Utilization Report which will accompany the pay estimates.

CONTRACT SUMMARY

Some key aspects of the contract:

- Demolition of 3 structures
- Utility terminations including sewer lining
- Misc. site preparation

Contract duration of 90 calendar days.

Please review the contingent item and quantity language in the Measurement and Payment section and Article 2 Sections 2.4 and 2.17.

Contract Estimate is \$883,300.

CONSTRUCTION INSPECTION

ALCOSAN will have on-site resident representatives assigned to review and monitor the work.

LEGAL NOTICE

Public bid opening is Tuesday, October 15, 2024 at 11:00 am. If the Contractor is using a delivery service such as Fed Ex or UPS, they may wish to confirm that delivery was made prior to this time.

Contract Documents may be examined and obtained at the Engineering office of the Authority. A non-refundable fee of One hundred dollars (\$100) (no cash or credit cards will be accepted) will be charged for each set of Contract Documents received. Bid Security shall be furnished by providing with the Bid a Certified Check or Bid Bond in the amount of 5% of the Bid Price. Contract documents must be purchased directly from ALCOSAN to qualify as an eligible bidder.

Any questions regarding the Technical aspects of the Project should be directed to Joseph Sparbanie P.E., ALCOSAN, via email to joseph.sparbanie@alcosan.org.

Any questions regarding the Purchase of Contract Documents should be directed to Kathleen P. Uniatowski, ALCOSAN, via email to contract.clerks@alcosan.org.

Deadline for technical questions is 4:00 pm on Friday, October 4, 2024.

Site visit will start at 10:00 A.M. on Friday September 27, 2024 at 876 Progress Street, Pittsburgh, PA 15212.

BIDDING DOCUMENTS (ARTICLE 1)

Submission of Bid: All Article 1 documents must be completed and submitted with the bid.

Lowest responsive Bidder will be based on the sum of Bid Items 1 through C.27. Only the Article 1 Bid Forms and supporting documents need to be submitted in the bid envelope, not the entire specifications book.

INFORMATION FOR BIDDERS (ARTICLE 2)

If any alleged errors are noted in the Contract Documents, Bidder should immediately notify Joseph Sparbanie and, if confirmed, an Addenda will be sent to all prospective Bidders known to have received the Contract Documents.

2.4 Description of Bid Items:

Bid items are a mix of lump sum, unit cost, and contingent items. Some contingent allowance items are pre-populated to provide consistency amongst all bidders.

A few key items:

Item 2 Contractor Required Permitting – All Locations

- Please be aware that the Contractor is responsible for identifying and obtaining all permitting

Item C.16A Excavated Material Testing, Removal & Off-Site Disposal – Residual Waste

- Contractor should plan for all excavated materials to be classified as residual waste and taken to a landfill and is required to test, dispose of, store etc.

Item C.24 Demolition of 853 S. Canal Street Structures

- This item is contingent because it is working its way through the SHPO clearance process. We are anticipating being able to demolish it, but is listed here as a cautionary measure.

2.8 Supplementary Information Package (SIP): Experience, Equipment, and Subcontractors.

2.17 Quantities:

Language per Article 2 Section 2.17 and Article 6 Section 1025 Measurement and Payment 1.3 F (c)

*“Contingent items of Work shall be done when ordered in the field and shall be paid for at the contract unit bid price. The purpose of the contract items designated in the bid form as “C” is to establish unit prices for work not included in other bid items. The Engineer has the right to order that contingent work be provided in smaller or larger quantities than the estimated quantity indicated in the Bid Form. **The Contractor shall not have any right to demand payment for, and will not be paid for, any costs associated with the item, including, but not limited to overhead and profit, due to the fact that the item was not used in the work or was used in smaller or larger quantities than those indicated in the bid form. The Contract Sum shall be subject to adjustment according to final measured quantities and the unit prices in the bid will apply to such final quantities.**”*

2.19 The Acknowledgment attached to Addendum No. 1 is to be signed and returned immediately to the Engineering Department at contract.clerks@alcosan.org and acknowledged with the Bidder’s Proposal.

2.22 Bid Security 5% of the Total Lump Sum Price certified check or bid bond.

Attachment A: Contractor shall execute Letter of Assent prior to commencing work.

GENERAL CONTRACT CONDITIONS (ARTICLE 3)

3.73 Health, Safety and Environmental Laws – ALCOSAN approval of safety manual required for work start.

- ALCOSAN provided template must be utilized for HASP submission (tech section 1010)

3.75 Working Hours: Any work performed outside normal working hours as defined in Article 3.75 will require prior approval and 48-hours’ notice.

Exhibit A – Insurance Requirements, Certificates required before any work begins.

CONTRACT AGREEMENT (ARTICLE 4)

Substantial Completion of Contract 1793: 90 Calendar days from NTP.

Liquidated Damages:

- Substantial Completion of Contract No.1793 - \$500/day

BONDS, CERTIFICATES AND STATEMENTS (ARTICLE 5)

Performance Bond, Labor and Material Bond, Contractors Certificate of Satisfaction, Maintenance Bond.

SPECIFICATIONS (ARTICLE 6)

This article contains all of the technical specifications. All spec sections should be read thoroughly.

PREVAILING WAGE RATES (ARTICLE 7)

Prevailing wages apply to this contract.

APPENDIX

- Appendix A – Drawings
 - Final PWSA tap termination drawings will be issued via addendum
 - Drawings will be briefly reviewed now.
- Appendix B – Reports
 - Environmental and material reports as well CCTV reports

QUESTIONS

All technical questions regarding these contract documents shall be submitted in writing no later than 4:00 pm on Friday, October 4, 2024, and should be directed via email to joseph.sparbanie@alcosan.org.

REMINDER:

Site visits will start at 10:00 A.M. on Friday September 27, 2024 at 876 Progress Street, Pittsburgh, PA 15212.

PRE-BID MEETING
1793-Site Demolition Contract II
Wednesday, September 25 at 10:00 AM

Full Name	Company	Email
Kathleen P. Uniatowski	ALCOSAN	Kathleen.Uniatowski@alcosan.org
Aster Oilfield Services, Inc.	Madison DeLuca	deluca.maddie@icloud.com
Steve Noble	Advanced Builders Inc.	snoble@diversifiedcsg.com
Williams, Ethan	Independence Excavating, Inc	ewilliams@indexc.com
Jeremy Wolfe	Carl Walker Construction	jwolfe@carlwalkerconstruction.com
Maumita Mandal	H&M Associates	admin@hmassociates-usa.com
Jeffrey Livezey	ALCOSAN	jeffrey.livezey@alcosan.org
Stephen Coppler	Dore and Associates	scoppler@yahoo.com
Nathan Brugere	Wreckcrew Demolition	wreckcrewdemolition@gmail.com
Joseph Sparbanie P.E.	ALCOSAN	joseph.sparbanie@alcosan.org
Michael Schrenker	Utilities One	michaels@utilitiesone.com
Jeffrey Lenner	Mott Mac	Jeffrey.Lenner@mottmac.com
Mark DeFabio	Mele & Mele	mdefabio@meleinc.com
Jadell Minniefield	ORM Contracting Corporation	info@ormcontracting.com
Judith Shropshire Bonner	ALCOSAN	Judith.ShropshireBonner@alcosan.org
Geno Conley	GCC Contracting LLC	geno.gcc.llc@gmail.com
Ryan Saari	One Nation Distribution, LLC	ryan@1ndl.com
Bryan Frye	Fay, S&B USA Construction	bfrye@shikunusa.com
Maruschak, Michael	HATCH	michael.maruschak@hatch.com
Alexis Isenberg	The Lexis Group	aisenberg@thelexisgroupllc.com
Dan Kelly	Multivista	d.kelly@multivista.com
Tani Bentley	The Virtuous Woman Co., LLC	info@tvwco.org
Sabrina Hudock	Myers Demolition & Excavation LLC	shudock@assistservicesllc.com
Odell Minniefield	ORM Contracting Corporation	info@ormcontracting.com
Ryan Novelli	Independent Enterprises, Inc.	rnovelli@iei.net.co
Ron Scheller	Fay, S&B USA Construction	rscheller@shikunusa.com
Nadia Green	Green Development Pittsburgh	greendevelopmentpgh@gmail.com
Collin Keller	ALCOSAN	Collin.Keller@alcosan.org
Daniel Sharek	ALCOSAN	Daniel.Sharek@alcosan.org
Jonathon Freeman	Murphree Homes	
Tim Schaaf	Schaaf Excavating	
William Lockhart	LM&R Excavating	william@lmrexcavating.com



**MEMORANDUM OF MEETING
CONTRACT NO. 1793:
SITE DEMOLITION CONTRACT II
FRIDAY, SEPTEMBER 27, 2024 @ 10:00AM
PREBID SITE MEETING MINUTES**

DISCUSSION

1.0 Introductions and Responsibilities

- A. Owner -Joe Sparbanie – ALCOSAN Project Manager
- B. Owner - Jeff Livesey – ALCOSAN Construction Supervisor
- C. Engineer - Jeff Lenner – Mott MacDonald
- D. CM – Mike Maruschak – Hatch
- E. Participants list attached.

2.0 Contract Scope

Jeff Lenner of Mott MacDonald reviewed overall project scope and the group reviewed the exterior of each structure.

- A. Sewer Lining
 - 15” Sewer liner to be installed on Carpenter Way and 24” sewer liner to be installed on Warfield Street
- B. 876 Progress Street (Our Father’s Diner)
 - Demolish and remove structure
 - Terminate Utilities
- C. 853 Canal Street – SHIPO site.
 - Demolish and remove structure
 - Demolish and remove garage structure
 - Backfill coal cellar under sidewalk.
 - Terminate Utilities
- D. 837 Canal Street
 - Steps and Cabinets have been removed since the release of bid documents.
 - Demolish and remove structure
 - Backfill coal cellar under sidewalk.
 - Terminate Utilities
- E. 407 Warfield Street
 - Steel foundry ladle to be demolished and removed from site.

3.0 General Notes

- A. Mott MacDonald will issue an addendum to clarify the scope of Jersey Barrier Removal.

Minutes prepared by Mike Maruschak, September 27, 2024.

SIGN IN SHEET

ALLEGHENY COUNTY SANITARY AUTHORITY

CONTRACT 1793

SITE DEMOLITION CONTRACT II

Pre-Bid Site Visit

FRIDAY, September 27, 2024

10:00 AM

876 Progress Street

[illegible]

ARTICLE 1
BIDDING DOCUMENTS

**ARTICLE 1
BIDDING DOCUMENTS**

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BID FORM	1-1
BID BOND	1-10
CERTIFICATE OF MINORITY AND WOMEN'S BUSINESS ENTERPRISE PARTICIPATION.....	1-18
NON-COLLUSION AFFIDAVIT.....	1-23
CERTIFICATE OF COMPLIANCE WITH THE PENNSYLVANIA STEEL PRODUCTS PROCUREMENT ACT	1-25
CONTRACTOR'S QUALIFICATION STATEMENT	1-27
CERTIFICATION OF SAFETY PROCEDURES COMPLIANCE	1-29

BID FORM

This Bid is submitted to the Allegheny County Sanitary Authority, herein called the Owner or the Authority, acting through its Chairman, which advertised for sealed bids for **CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II** by:

Bidder's Name and Address:

Attn.: _____

Telephone Number: _____

Facsimile Number: _____

The undersigned as Bidder, hereinafter referred to as the Contractor or Bidder, declares that the only parties interested in this Bid as Principals are named herein; that this Bid is made without collusion with any other person, firm or corporation; that no officer or agent of the Authority is directly or indirectly interested in this Bid; that it has carefully examined the annexed form on the Contract Agreement and all accompanying Contract Documents and it proposes and agrees that, if its Bid is accepted, it shall contract with the Authority in the language of the Contract Agreement to supply the necessary materials and equipment and to perform the necessary work for **CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II** within ninety (90) calendar days after receiving from the Authority the Notice of Award of the Contract, and the Notice to Proceed, and that they shall complete the work required by the Contract Documents including the Reference Drawings, and Specifications, in its entirety in the manner and under the conditions required at the prices listed as follows:

NOTE: Prices shall be either in ink or typewritten in both figures and words. In case of a discrepancy between the price written in words and the price written in figures, the price written in words will govern.

Unit Price Work:

Bidder proposes to accept as full payment for the Unit Price Work proposed herein the amounts computed under the provisions of the Bidding Documents and based on the following unit price amounts, it being expressly understood that the unit prices are independent of the exact quantities involved. Bidder agrees that the unit prices represent a true measure of the labor, materials, and services required to furnish and install the item, including all allowances for overhead and profit for each type and unit of Work called for in these Bidding Documents.

Bidders are advised that the Authority reserves the right to have all, a portion, or none of the unit price work completed during **CONTRACT NO. 1793**.

CONTRACT No. 1793
SITE DEMOLITION CONTRACT II

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
GENERAL WORK					
1	Mobilization, Bonds And Insurance (Not to Exceed 5% of Total Bid Price)	1	LS		
2	Contractor Required Permitting – All Locations	1	LS		
3	Traffic Control	1	LS		
4	Demolition of 837 S. Canal Street Structure	1	LS		
5	Demolition of 876 Progress Street Structure	1	LS		
6	15” through 24” Diameter VCP Combined Sewer Lining	1	LS		
7	Demolition and Removal of Existing Concrete Traffic Barriers	1	LS		
8	Erosion & Sedimentation Controls – All AS1 Demolition Sites	1	LS		
9	Utility Terminations	1	LS		
10	Demolition of Steel Foundry Ladle	1	LS		
CONTINGENT WORK					
C.11	Traffic Control, Flagperson	40	MAN HR		
C.12	Traffic Control, Off-Duty Police Officer	40	MAN HR		
C.13	Exploratory Excavation	50	CY		
C.14	Approved Aggregate	400	CY		
C.15	Spreading, Grading, and Compaction of Approved Clean Fill from Off-Site Sources	200	CY		
C.16	Flowable Backfill, PennDOT Type C or D for Subsurface Building Voids, and Vaults Under Sidewalk	100	CY		
C.17A	Excavated Material Testing, Removal & Off-Site Disposal – Residual Waste	80	TON		
C.17B	Excavated Material Testing, Removal & Off-Site Disposal – Hazardous Waste	40	TON		
C.18	Pavement Milling	80	SY		
C.19	Temporary Cold Patch Bituminous Pavement	11	TON		
C.20	Permanent Bituminous Pavement Restoration (All Types)	13	TON		
C.21	Concrete Paving Base and Pavement w/ Reinforcement	14	CY		
C.22	Concrete Deep Curb	80	LF		
C.23	Concrete Sidewalk	100	SY		
C.24	4” Topsoil, Fertilizing, Seeding, and Vegetative Stabilization	2,000	SY		
C.25	Demolition of 853 S. Canal Street Structures	1	LS		
C.26	Additional Paint & Asbestos Testing, Containment, Removal, and Disposal of Miscellaneous Hazardous Material as Directed by Owner	1	LS	\$20,000	\$20,000
C.27	Miscellaneous Work For a Full Crew	20	CREW HR		
C.28	15” Combined Sewer Point Repair	1	LS		
TOTAL COST, CONTRACT No. 1793 – SITE DEMOLITION CONTRACT II				\$ _____	

The Authority is exempt from the payment of Commonwealth of Pennsylvania Selective Sales and Use Tax. The Bidder should disregard such tax in calculating its Bid.

It is understood that the Authority reserves the right to waive any informality in or reject any or all Bids and to withhold the awarding of the Contract for **sixty (60) calendar days** after the date set for the opening of the Bids.

If this Bid is accepted by the Authority, and the undersigned shall fail to enter into a formal Contract as aforesaid, within **ten (10) calendar days** (not including Sunday or a legal holiday) from the date of receipt of notice from the Authority to the undersigned, at the address given herewith, that the Contract is ready for signature, then the Authority may procure the required **CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II** from others.

The undersigned Bidder agrees that the Contract, if awarded to the Bidder, shall be entered into, under and pursuant to the laws of the Commonwealth of Pennsylvania and shall in all respects be construed in accordance with the laws of said Commonwealth.

Should the Bidder change the wording of the language employed in the Contract Documents including the Bid so as to alter, modify or change the Contract Documents in any degree or manner the Authority may at its discretion reject the Bid or accept it with the changes. The same applies to any letter, printed form or other document inserted in the Contract Documents accompanying the Bid. The successful Bidder shall be legally bound to comply strictly with the provisions of the Authority's Contract Documents exactly as accepted by the Authority.

(CORPORATION COMPLETE THIS PAGE)

_____ is a corporation organized and existing
under the laws of _____ with principal place of business at
_____ and, if a

(Street Address)

(City, State and Zip Code)

non-Pennsylvania corporation [has] / [has not] been granted a certificate of authority to do business
in Pennsylvania, as required by the Pennsylvania Business Corporation Law of 1988, approved
December 21, 1988, P.L. 1444, as amended, 15 Pa. C.S.A. §§ 4101 et seq.

ATTEST:

(Name of Corporation)

(Signature of Certifying Officer)

(Signature of Authorized Officer)

Date: _____, 20__

(Typed name of Authorized Officer)

(AFFIX CORPORATE SEAL)

(The corporation shall make certain that the secretary or assistant secretary certifies the
official character and authority of the person or persons executing this Bid for the Contractor
according to the form attached hereto. In lieu of such certificate, attach to the Bid copies of the
records of the corporation that show the official character and authority of the officer signing. The
records shall be duly certified to be true copies by the secretary or assistant secretary under
corporate seal.)

CORPORATION COMPLETE THIS PAGE

_____ is a corporation organized and existing under the laws of _____ with principal place of business at _____

(Street Address)

(City, State and Zip Code)

and, if a non-Pennsylvania corporation [has] / [has not] been granted a certificate of authority to do business in Pennsylvania, as required by the Pennsylvania Business Corporation Law of 1988, approved December 21, 1988, P.L. 1444, as amended, 15 Pa. C.S.A. " 4101 et seq.

ATTEST: _____
(Name of Corporation)

(Signature of Certifying Officer)

(Signature of Authorized Officer)

Date: _____ 20__

(Typed name of Authorized Officer)

(AFFIX CORPORATE SEAL)

- * The corporation shall make certain that the secretary or assistant secretary certifies the official character and authority of the person or persons executing this Bid for the Contractor according to the form attached hereto. In lieu of such certificate, attach to the Bid copies of the records of the corporation, that show the official character and authority of the officer signing. The records shall be duly certified to be true copies by the secretary or assistant secretary under corporate seal.

**CORPORATION COMPLETE THIS PAGE
CERTIFICATE AS TO CORPORATE OFFICER**

I, _____, certify that I am
[secretary]/[assistant secretary] of the corporation executing the within Bid; that
_____ who signed the said Bid; on behalf of the
corporation was then _____ of said corporation; that
I know his signature and his signature thereto is genuine; and that said Bid was duly signed,
sealed and attested for and in behalf of said corporation by authority of its governing body.

Dated: _____, 20__

(Signature of secretary (or assistant secretary))

(AFFIX CORPORATE SEAL)

PARTNERSHIP COMPLETE THIS PAGE

_____ is a partnership trading under a fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A. " 301 et seq.

(Fictitious or assumed name)

WITNESS:

(Partner trading as above) *(SEAL)

(Partner trading as above) *(SEAL)

Date: _____, 20__

(Street Address)

(City, State and Zip Code)

* If the executing party is a partnership, the document must be signed in the name of the partnership by at least two general partners, and the names and addresses of all the partners must be listed on the attached Certificate. The partnership must also attach Certificate of registration under the provisions of the Fictitious Names Act.

**PARTNERSHIP COMPLETE THIS PAGE
CERTIFICATE AS TO PARTNERSHIP**

I, a partner of _____, the partnership named as Contractor in the within Bid, certify that the following are the names and addresses of all the partners of said partnership:

(Name)

(Name)

(Address)

(Address)

(City, State and Zip Code)

(City, State and Zip Code)

(Name)

(Name)

(Address)

(Address)

(City, State and Zip Code)

(City, State and Zip Code)

Date: _____, 20__

(Signature of Certifying Partner)

**INDIVIDUAL COMPLETE THIS PAGE
(WHEN THE PRINCIPAL IS AN INDIVIDUAL DOING BUSINESS UNDER
A FIRM NAME)**

_____ is an individual trading under a fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A. " 301 et seq.

WITNESS:

(Fictitious or assumed name)

By: _____(SEAL)
(Individual Doing Business as Above)

Date: _____, 20__

(Street Address)

(City, State and Zip Code)

**(WHEN THE PARTY IS AN INDIVIDUAL DOING BUSINESS IN HIS/HER
INDIVIDUAL NAME)**

WITNESS:

(Individual Name)

By: _____(SEAL)
(Individual)

Date: _____, 20__

(Street Address)

(City, State and Zip Code)

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____
_____, as Principal, and _____,
a corporation duly organized under the laws of the State of _____, as Surety, are
held and firmly bound unto the Allegheny County Sanitary Authority, herein called the
"Authority", its attorneys, successors or assigns in the sum of _____ Dollars
(\$ _____) lawful money of the United States of America, for payment of which sum well
and truly to be made, we bind ourselves, our heirs, legal representatives, successors and assigns,
jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted the accompanying Bid for **CONTRACT
No. 1793 – SITE DEMOLITION CONTRACT II**

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS
SUCH, that **(1)** if the Principal shall not withdraw said Bid within the period specified in
the Information for Bidders, and shall within the period therein specified therefor [or, if
no time is specified, within **ten (10) calendar days** (not including Sundays or Legal
Holidays) after the prescribed forms are presented to it for execution] enter into a written
Contract with the Authority in accordance with the Bid as required, for the faithful
performance of such Contract and for the payment of labor and materials and execute and
deliver to the Authority all bonds and other instruments required to be executed and
delivered by the Principal in accordance with the Contract Documents, or **(2)** in the event
of the unauthorized withdrawal of said Bid, or the failure to enter into such Contract and
give such bonds within the time specified and execute and deliver to the Authority all
bonds and other instruments required to be executed and delivered by the Principal in
accordance with the Contract Documents, if the Principal shall pay the Authority the
difference between the amount specified in said Bid and the amount for which the
Authority may procure the required work or supplies or both, if the latter amount be in
excess of former together with all other loss, damage or expense suffered by the Authority
thereby, then, in either such case, the above obligation shall become void and of no effect;
otherwise it shall remain in full force and effect.

Said Surety, for value received, hereby stipulates and agrees that the obligation of said Surety under this Bond shall in no way be impaired or affected by an extension of the time within which said Bid may be accepted and said Surety does hereby waive notice of any such extension.

Said Surety agrees that its liability hereunder shall be absolute regardless of any liability of the Principal hereunder whether by reason of any irregular or unauthorized execution of or failure to execute this Bond or otherwise.

This Bond is entered into, under and pursuant to the laws of the Commonwealth of Pennsylvania and shall in all respects be construed in accordance with the laws of said Commonwealth.

IN WITNESS WHEREOF, the above parties have executed this instrument under their several seals this _____ day of _____, 20____, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

SURETY COMPLETE THIS PAGE

(Corporate Surety)

(Street Address)

(City, State and Zip Code)

ATTEST:

By: _____ *

(Signature)

(Title)

Date: _____, 20__

(AFFIX CORPORATE SEAL)

- * The Surety should attach to the Bid Bond a currently certified Power of Attorney which should be dated, sealed and executed by a live (not facsimile) signature showing that the person signing the Bid Bond for the Surety has the current authority to do so.

CORPORATION COMPLETE THIS PAGE

_____ is a corporation organized
and existing under the laws of _____ with principal place
of business at _____
(Street Address) (City, State and Zip Code)

and, if a non-Pennsylvania corporation [has] / [has not] been granted a certificate of
authority to do business in Pennsylvania, as required by the Pennsylvania Business
Corporation Law of 1988, approved December 21, 1988, P.L. 1444, as amended, 15 Pa.
C.S.A. " 4101 et seq.

ATTEST:

(Name of Corporation)

(Signature of Certifying Officer)

(Signature of Authorized Officer)

Date: _____, 20__

(Typed Name of Authorized Officer)

(AFFIX CORPORATE SEAL)

* The corporation shall make certain that the secretary or assistant secretary
certifies the official character and authority of the person or persons executing
this Bid Bond for the Principal according to the form attached hereto. In lieu
of such certificate, attach to the Bid Bond copies of the records of the
corporation, that show the official character and authority of the officer signing.
The records shall be duly certified to be true copies by the secretary or assistant
secretary under corporate seal.

**CORPORATION COMPLETE THIS PAGE
CERTIFICATE AS TO CORPORATE OFFICER**

I, _____, certify that I am
[secretary]/[assistant secretary] of the corporation executing the within Bid Bond; that
_____ who signed the said Bid Bond; on
behalf of the corporation was then _____ of said
corporation; that I know his signature and his signature thereto is genuine; and that said
Bid Bond was duly signed, sealed and attested for and in behalf of said corporation by
authority of its governing body.

Dated: _____, 20__

Signature of secretary (or assistant secretary)

(AFFIX CORPORATE SEAL)

PARTNERSHIP COMPLETE THIS PAGE

_____ is a partnership trading
under a fictitious or assumed name and [has] / [has not] registered under the Fictitious
Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as
amended, 54 Pa. C.S.A. " 301 et seq.

(Fictitious or assumed name)

WITNESS:

_____(SEAL)
(Partner trading as above)

_____(SEAL)
(Partner trading as above)

Date: _____, 20__

(Street Address)

(City, State and Zip Code)

* If the executing party is a partnership, the document must be signed in the name of the partnership by at least two general partners, and the names and addresses of all the partners must be listed on the attached Certificate. Principal must also attach Certificate of registration under the provisions of the Fictitious Names Act.

**PARTNERSHIP COMPLETE THIS PAGE
CERTIFICATE AS TO PARTNERSHIP**

I, a partner of _____, the partnership
named as Contractor in the within Bid Bond, certify that the following are the names and
addresses of all the partners of said partnership:

(Name)

(Address)

(City, State and Zip Code)

(Name)

(Address)

(City, State and Zip Code)

Date: _____, 20 ____

(Name)

(Address)

(City, State and Zip Code)

(Name)

(Address)

(City, State and Zip Code)

(Signature of Certifying Partner)

**INDIVIDUAL COMPLETE THIS PAGE
(WHEN THE PRINCIPAL IS AN INDIVIDUAL DOING BUSINESS UNDER
A FIRM NAME)**

_____ is an individual trading under a fictitious or assumed name and [has] / [has not] registered under the Fictitious Names Act of Pennsylvania, namely, the Act of December 16, 1982, P.L. 1309, as amended, 54 Pa. C.S.A " 301 et seq.

WITNESS:

(Fictitious or assumed name)

By: _____(SEAL)
(Individual doing business as above)

(Street Address)

Date: _____, 20__

(City, State and Zip Code)

**(WHEN THE PARTY IS AN INDIVIDUAL DOING BUSINESS IN HIS/HER
INDIVIDUAL NAME)**

WITNESS:

(Individual Name)

By: _____(SEAL)
(Individual)

(Street Address)

Date: _____, _____

(City, State and Zip Code)

**CERTIFICATE OF MINORITY AND
WOMEN’S BUSINESS ENTERPRISE PARTICIPATION**

CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II

The undersigned Bidder certifies that they have read and understand the Information for Bidders Section entitled “Minority and Women’s Business Enterprise and Labor Surplus Area Policy”, and further understand and agree to the minority participation goal applicable to this Contract and shall strive to expend from ten to **twenty-five percent (10-25%)** of the total cost of the Contract for minority and women’s business enterprise participation.

The Bidder further certifies that they understand that they are required to submit, as part of their Bid, a specific proposal indicating the manner in which it will attempt to comply with this requirement.

Failure of the Bidder to attempt to comply with these conditions or failure to submit with the Bid the proposal described above, or failure to sign and submit this Certificate with the Bid may disqualify the Bid as being nonresponsive.

Name of Bidder _____

Signed _____

Title _____

Date _____

ALLEGHENY COUNTY SANITARY AUTHORITY

Failure to complete this form and submit it with bid will be sufficient cause for rejection of bid.

Note: Each sheet must be returned.

SOLICITATION AND COMMITMENT STATEMENT							
MINORITY (MBE) AND FEMALE (WBE) OWNED BUSINESS ENTERPRISES							
CONTRACT NO.	NAME OF BIDDER	ADDRESS			PHONE		
1793							
List below all MBE/WBE's that were solicited - whether or not a commitment was obtained -- Copy this form as necessary							
<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	TYPE OF SUBCONTRACT WORK OR MATERIALS	<u>DATE SOLICITED</u> BY PHONE BY MAIL		<u>COMMITMENT MADE</u> YES (IF YES, GIVE DATE) NO		GIVE REASON(S) IF NO COMMITMENT MADE
COMPANY NAME							
ADDRESS			<u>QUOTE RECEIVED</u> YES NO		<u>AMOUNT COMMITTED</u> DOLLAR AMOUNT \$		
CONTACT PERSON PHONE					PERCENT OF TOTAL BID %		
<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	TYPE OF SUBCONTRACT WORK OR MATERIALS	<u>DATE SOLICITED</u> BY PHONE BY MAIL		<u>COMMITMENT MADE</u> YES (IF YES, GIVE DATE) NO		GIVE REASON(S) IF NO COMMITMENT MADE
COMPANY NAME							
ADDRESS			<u>QUOTE RECEIVED</u> YES NO		<u>AMOUNT COMMITTED</u> DOLLAR AMOUNT \$		
CONTACT PERSON PHONE					PERCENT OF TOTAL BID %		
<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	TYPE OF SUBCONTRACT WORK OR MATERIALS	<u>DATE SOLICITED</u> BY PHONE BY MAIL		<u>COMMITMENT MADE</u> YES (IF YES, GIVE DATE) NO		GIVE REASON(S) IF NO COMMITMENT MADE
COMPANY NAME							
ADDRESS			<u>QUOTE RECEIVED</u> YES NO		<u>AMOUNT COMMITTED</u> DOLLAR AMOUNT \$		
CONTACT PERSON PHONE					PERCENT OF TOTAL BID %		

Prepared by: _____

Title: _____

Phone: _____

NOTE: It

is recommended that Certification and letters of intent for each MBE/WBE commitment accompany this Solicitation and Commitment Statement.

MBE/WBE SOLICITATION AND COMMITMENT STATEMENT

BIDDER'S FIRM: _____

ADDRESS: _____

TELEPHONE: _____

CONTACT PERSON: _____

PROPOSAL AND BID FOR: _____

LIST BELOW ALL CONTRACTS WITH THE ALLEGHENY COUNTY SANITARY AUTHORITY DURING THE PAST THREE YEARS AND THE MBE AND WBE PARTICIPATION OBTAINED					
CONTRACT TITLE	CONTRACT DATE	AMOUNT	% PARTICIPATION		COMMENTS
			MBE	WBE	

Prepared by: _____

Title: _____

MBE/WBE SOLICITATION AND COMMITMENT STATEMENT

Additional Information

The bidder presents the following as additional and supplemental information to its MBE/WBE Solicitation and Commitment Statement

Prepared by: _____ Title: _____ Phone: _____

Websites that provide certified MBE/WBE companies:

www.paucp.com

<http://mwdbe.Tri-logic.com>

NON-COLLUSION AFFIDAVIT

State of _____:

S.S.

County of _____:

I state that I am _____ of
(Title)

_____ and that I am
(Name of Firm)

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

I further 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 contractor, 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 the 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) My firm's Bid 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.

(5) _____,
(Name of Firm)

its affiliates, subsidiaries, officers, directors and employees are not currently under investigation by any governmental agency and have not in the last four 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 (Either provide an explanation or type N/A if not applicable):

I state that _____
(Name of Firm)

understands and acknowledges that the above representations are material and important, and will be relied on by:

THE ALLEGHENY COUNTY SANITARY 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 ALLEGHENY COUNTY SANITARY AUTHORITY

of the true facts relating to the submission of bids for this contract.

(Name and Company Position)

SWORN TO AND SUBSCRIBED BEFORE ME

THIS _____ DAY of _____, 20__

(Notary Public)

(My Commission Expires)

**CERTIFICATE OF COMPLIANCE WITH THE
PENNSYLVANIA STEEL PRODUCTS PROCUREMENT ACT**

This Certificate is supplied by _____
("Contractor") to the Allegheny County Sanitary Authority ("ALCOSAN") this _____ day of
, _____ 20__.

W I T N E S S E T H:

WHEREAS, Contractor wishes to contract with ALCOSAN relative to **CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II** (the "Contract"); and

WHEREAS, The Pennsylvania Steel Products Procurement Act, 72 P.S. ' 1881 et. seq. ("Steel Procurement Act") requires that if a product contains foreign and United States steel, such product shall be determined to be a United States steel product only if at least 75% of the cost of the articles, materials, and supplies have been mined, produced or manufactured, as the case may be, in the United States; and

WHEREAS, Contractor has represented to ALCOSAN that any and all products Contractor will supply to ALCOSAN pursuant to the Contract will be United States steel products as defined in Steel Procurement Act and Contractor does and will in all fashion and manner comply with the Steel Procurement Act and the Contract in performance of the Contract.

NOW, THEREFORE, INTENDING TO BE LEGALLY BOUND HEREBY, Contractor does represent and promise to ALCOSAN as follows:

- 1 The above recitals are binding between the parties and are legally enforceable as if set forth in their entirety herein.
- 2 Contractor will, pursuant to the Contract, meet the definition of United States steel products as set forth in the Steel Procurement Act and will in all manner and fashion otherwise comply with the Steel Procurement Act and the Contract.
- 3 Contractor acknowledges that its representations and promises are a material consideration to ALCOSAN with regard to considering Contractor for and possibly awarding the Contract to Contractor.

4 Contractor does hereby promise to indemnify and save harmless the Authority, its officers, agents, servants, and employees from and against any and all suits, actions, legal proceedings, claims, demands, damages, costs, expenses and attorney's fees resulting from the breach of any representation, covenant or promise contained in this Certificate.

Intending to be legally bound hereby Contractor does hereby supply this Certificate the _____ day of, _____ 20__.

ATTEST:

By: _____

Title: _____

Date: _____

CONTRACTOR'S QUALIFICATIONS STATEMENT

Submitted by: _____
Principal Office: _____

(A Corporation)
(A Co-partnership)
(An Individual)

The signatory of this Qualifications Statement guarantees the truth and accuracy of all statements and of all answers to interrogatories hereinafter made.

1. How many years has your organization been in business under your present business name?

2. How many years' experience does your organization have in this type of business?

3. On a separate sheet, attached to this document, list the categories of work, by CSI Division Number and Title, that your organization will perform on this contract.
4. On a separate sheet, attached to this document, list the categories of work, by CSI Division Number and Title, that your organization will sub-contract out on this contract.
5. On a separate sheet, attached to this document, list major construction projects similar in nature to this project that your organization has in progress giving the name of project, owner, architect/engineer, contract amount, percent complete, scheduled completion date, and the percentage of the total cost of the work that your organization is performing.
6. On a separate sheet, attached to this document, list major construction projects similar in nature to this project that your organization has completed in the past **five (5) years**, giving the name of project, owner, architect/engineer, contract amount, percent complete, scheduled completion date, and the percentage of the total cost of the work that your organization is performing.
7. On a separate sheet, attached to this document, list the construction experience and current commitments of the key individuals of your organization.
8. On a separate sheet, attached to this document, describe any equipment that your firm has to perform manhole and sewer work.
9. If the answer is "yes" to any of the following three questions, please attach details.

- a. Has your organization ever failed to complete any work awarded to it? _____
 - b. Are there any judgements, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers? _____
 - c. Has your organization filed any lawsuits or requested arbitration with regard to construction contracts within the last **five (5) years**? _____
10. Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:
- Current Assets (e.g. cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses)
 - Net Fixed Assets
 - Other Assets
 - Current liabilities (e.g. accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries, and accrued payroll taxes)
 - Other liabilities (e.g. capital, capital stock, authorized and outstanding shares par values, earned surplus, and retained earnings)
 - Name and address of firm preparing attached financial statement and date thereof.
11. Is the attached financial statement for the identical organization named on page one? _____. If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g. parent-subsidiary)

Dated: _____

Name of Organization: _____

By: _____

Title: _____

_____ being duly sworn deposes and says that the information herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this date: _____

Notary Public: _____

My Commission Expires : _____

CERTIFICATION OF SAFETY PROCEDURES COMPLIANCE

I, _____, as _____ of
(Typed Name) (Title or Office)
_____, a _____,
(Name of Corporation/Partnership) (Type of Entity)

hereby certify that I have read and understand the Safety Procedure as enumerated in the Contract Provisions Section entitled "Compliance with Health, Safety and Environmental Laws" of **CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II** and that all Work will be conducted in accordance with OSHA standards and other applicable safety precautions.

Date: _____ by: _____

ARTICLE 2
INFORMATION FOR BIDDERS

ARTICLE 2 INFORMATION FOR BIDDERS

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2.1 DEFINED TERMS

The terms used in this Information for Bidders have the meanings assigned to them in **Article 3**, General Contract Conditions (the "General Conditions").

Certain additional terms used in the Bidding Documents have the meanings indicated below which are applicable to both the singular and plural thereof.

- A. APPARENT LOW BIDDER is the responsible, responsive bidder whose bid as offered in the bid form represents the lowest total as determined by the Base Bid.
- B. BASE BID is the total of the Bid for the Lump Sum Work, plus the amount for any Unit Price Work if applicable. No consideration will be given to additive or deductive alternates or other credits in determining the Base Bid.
- C. BID refers to all materials, items and documents included in the Bidder's response to the Owner submitted pursuant to the Contract Documents.
- D. BIDDER is one who submits a Bid to the Owner as distinct from a sub-bidder, who submits a Bid to a Bidder.
- E. CONSENT DECREE is the legal Consent Decree as approved by ALCOSAN, United States Environmental Protection Agency (EPA), Commonwealth of Pennsylvania Department of Environmental Protection (PADEP), and the Allegheny County Health Department and entered on January 23, 2008.
- F. SUCCESSFUL BIDDER is the lowest, responsible and responsive Bidder to whom the Owner (on the basis of the Owner's evaluation as hereinafter provided) makes an award.

2.2 GENERAL

The information contained in this **Article 2** of the Contract Documents describes the proper form and method for submitting Bids and the accompanying security to the Allegheny County Sanitary Authority (hereinafter referred to as the "Owner"), and provides certain general information regarding the award of the Contract.

Certain provisions throughout this Article may reference certain consultants retained by the Owner such as the Construction Manager, the Consulting Engineer or Final Design Consultant and the Engineering Program Manager and to certain of their duties and responsibilities. If any or all of the above-mentioned consultants are not retained for this Project, their duties and responsibilities shall, unless otherwise specified, be retained by the Director of Regional Conveyance ("Engineer") or the Engineer's written designee.

It is a condition to the Owner's evaluation of the Bid and possible award of the Contract that the Bidder carefully examine all of the Contract Documents and completely satisfy itself as to the nature and location of the Work and all Job Site conditions that may affect

performance of the Work. Submission of the Bid by the Bidder is a representation by the Bidder that it has satisfied itself with respect to the foregoing.

Unless all Bids are rejected, and except as otherwise provided by law, award will be made to the lowest responsive and responsible Bidder. The Owner reserves the right to award by item or on a total Lump Sum Price basis, whichever is deemed most advantageous to the Owner. In cases of discrepancies in prices, the unit price will be binding. In any discrepancy between words and figures, the words will take precedence. For Lump Sum Bids, which include an itemized breakdown, the low Bid will be based on the stated Lump Sum Price and the Owner is not required to consider the total value of the itemized breakdown.

The Contract Documents shall be interpreted, construed, and enforced in accordance with all applicable laws and regulations of the Commonwealth of Pennsylvania.

2.3 LOCATION AND DESCRIPTION OF WORK

The Work to be done as specified here in **CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II**, (referred to as the "Work") specifically includes the complete demolition of structures to grade on three parcels at the ALCOSAN AS1 site, the subsequent site restoration, and hazardous material abatement.

Details of the scope of work can be reviewed in **Section 01 11 00 Summary of Work**.

2.4 DESCRIPTION OF BID ITEMS

The following is a general description of the tasks to be completed under this Contract.

All perspective bidders are advised that access to the various sites is for information only, and the bidder should make any investigation necessary to satisfy himself/herself of the existing conditions. Furthermore, the successful bidder will be responsible for providing the means necessary to access the sites to accommodate his operations at no additional cost to the Owner.

ITEM NO. 1 – MOBILIZATION, BONDS AND INSURANCE

The amount for "MOBILIZATION/DEMobilIZATION, BONDS AND INSURANCE" shall be bid on a LUMP SUM (LS) basis not to exceed 5% of the sum of the total base bid price for **Items No. 3 – 10** and contingent **Items No. C.11 – C.28**. Mobilization/Demobilization shall consist of costs associated with providing initial services required to mobilize for, commence work and demobilize on this project, as described in the Contract Documents. Associated costs include, but are not limited to, obtaining all required insurance and bonds; preparatory work and operations necessary for the movement of personnel, equipment, temporary facilities, supplies, labor and other incidentals to the work; preparation of construction schedules; sample reports; submittals; health and safety plan; and all other work which must be performed, or cost incurred prior to beginning work.

This item shall also include field survey of the project area, project management, submittals, shop drawings, project protection, and as-built record drawings.

Obtaining all required permits will be paid for under **Item No. 2.**

Payment shall be LUMP SUM for the entire project. Measurement shall be based on the percentage of work completed.

ITEM NO. 2 – CONTRACTOR REQUIRED PERMITTING – ALL LOCATIONS

Measurement and payment for this item will be made PER LUMP SUM.

This item will include all costs for obtaining all necessary permits to complete the work including, but not limited to those issued by the Department of Environmental Protection, the Allegheny County Health Department, the City of Pittsburgh, the Pittsburgh Water & Sewer Authority.

ITEM NO. 3 – TRAFFIC CONTROL

This item shall include furnishing and maintaining signage and/or electronic Arrow Board Devices in accordance with PENNDOT Publications 408 and 203 and at locations required by the Contractor's approved Maintenance and Protection of Traffic (MPT) Plan, obstruction permit or designated by the Owner's Field Representative.

This item shall also include supplying and maintaining any and all signage, cones, barrels, channeling devices that are required to comply with the approved MPT plan.

Payment shall be based on the unit price bid. Measurement for payment shall be based on the number of actual operating hours per device necessary to complete the work.

Payment for this item will be PER LUMP SUM.

ITEM NO. 4 – DEMOLITION OF 837 S. CANAL STREET STRUCTURE

Measurement and payment will be made PER LUMP SUM.

This item will include all labor, material, and costs associated with complete demolition, removal, and off-site disposal of the building structure as indicated in the drawings and specifications.

This item includes lead abatement, removal, and disposal as required to remove suspected lead based materials as outlined in the December 2023 837 S. Canal Street Testing Report included in the Contract Documents.

ITEM NO. 5 – DEMOLITION OF 876 PROGRESS STREET STRUCTURE

Measurement and payment will be made PER LUMP SUM.

This item will include all labor, material, and costs associated with complete demolition, removal, and off-site disposal of the building and garage structure as indicated in the drawings and specifications.

ITEM NO. 6 – 15” THROUGH 24” DIAMETER VCP COMBINED SEWER LINING

Work under this item shall include the CIPP lining of approximately 573’ of 15” VCP combined sewer between MH024P150 and MH009B022, and approximately 135’ of 24” VCP combined sewer between MH009B022 and MH009B024. This work includes all costs associated with light cleaning, obstruction removal, temporary plugging, flow diversion, pre-lining CCTV, post-lining CCTV, dye testing of adjacent building’s roof leader and internal sanitary plumbing (parcel 24-P-190), lateral reinstatement of any confirmed active laterals from parcel 24-P-190, samples and performance of required material tests, and testing of lined pipe system.

Payment for this item will be PER LUMP SUM

ITEM NO. 7 – DEMOLITION AND REMOVAL OF EXISTING CONCRETE TRAFFIC BARRIERS

Work under this item shall include all work to demolish, remove, and dispose all but 22 of the existing concrete traffic barriers marked for demolition on plans. The retained 22 concrete barriers will be relocated on site and placed where directed on the Addendum 1 000-DM-103 drawing.

Measurement and payment will be made PER LUMP SUM.

ITEM NO. 8 – EROSION AND SEDIMENTATION CONTROL – ALL AS1 DEMOLITION SITES

Measurement and payment for this item will be made PER LUMP SUM.

This item will include all labor, materials, and costs for furnishing, installing, and maintaining all necessary erosion and sedimentation controls as required for the extent of the work at each AS1 building demolition site. This includes, but is not limited to, those indicated in the contract drawings and specifications and those required by the Department of Environmental Protection.

Work under this item shall include vegetation trimming, including removal of 4 existing trees and spreading of grass seed (overseeding) without disturbing the soil within the limits shown on drawing 000-DM-103.

ITEM NO. 9 – UTILITY TERMINATIONS

Measurement and payment will be made PER LUMP SUM.

This item will include all costs for the termination of the gas, electric, and water service and public utility lines at all project sites as indicated in the drawings and specifications.

Includes material, equipment, and labor to terminate water services per PWSA standard details. Includes transitions couplings, ductile iron pipe, and all other materials required. Includes Contractor coordination with PWSA Operations as noted on drawings with advanced notice to arrange for a PWSA inspector on site during termination process, and for PWSA Operations to perform closures of PWSA owned public water system valves. Includes coordination and completion of all PWSA required waterline testing and disinfection.

Includes furnishing all labor, materials and equipment necessary to perform all excavation related to utility terminations with the exception of work performed under the exploratory excavation and backfill pay item. This shall include use of line location equipment and metal detector, all saw cutting, unclassified excavation, installation and removal of all sheeting, bracing, and shoring of trench and other utilities, trench dewatering, to all depths up to fifteen feet deep, that is required to perform utility terminations. Testing and disposal of excavated materials will be paid under **Item 17A or 17B**.

Includes coordination with Duquesne Light Company to arrange for the termination of electrical service as noted on drawings.

Includes coordination with Peoples Natural Gas to verify the termination of gas service at each structure to be razed, prior to the start of demolition.

Includes coordination as needed with Comcast, AT&T Metro, and Verizon to verify termination of applicable services.

Backfill and restoration will be paid for under other items in the contract.

ITEM NO. 10 – DEMOLITION OF STEEL FOUNDRY LADLE

This item shall cover all expenses involved in the demolition and removal of the steel foundry ladle as shown on 000-DM-104.

Payment for this item will be PER LUMP SUM.

ITEM NO. C.11 – TRAFFIC CONTROL, FLAGPERSON

This item shall include providing a properly certified uniformed flag person in accordance with contract specifications, when required as a condition of permits, and/or as directed by the Owner or Construction Manager.

Payment shall be based on the unit price PER MAN HOUR for actual number of hours provided on site.

ITEM NO. C.12 – TRAFFIC CONTROL, OFF-DUTY POLICE OFFICER

This item shall include providing off-duty uniformed City of Pittsburgh Police Officers to direct and control traffic during construction as required by the approved Maintenance and Protection of Traffic Plan, obstruction permit or as required by the Owner's representative in the field.

Measurement for payment shall be based on 1) the actual number of man hours provided when the occurrence is greater than four hours; 2) a value of four hours when the hours of service are four hours or less per occurrence.

Payment shall be based on the unit price PER MAN HOUR.

ITEM NO. C.13 – EXPLORATORY EXCAVATION

Work under this item shall include furnishing all labor, materials and equipment to perform exploratory excavation and backfill required at test pit locations and any other locations directed in the field by the OWNER, including existing utilities in need of relocation by others. This shall include all sheeting, bracing and shoring, unclassified excavation, dewatering, erosion and sedimentation controls, dye testing, temporary sewer repair, aggregate and/or excavated earth backfill material, removal of shoring and placement and compaction of approved earth or aggregate backfill material as directed.

The testing and disposal of any excess excavated material that will be hauled off site is to be paid for under **Item 17A** and/or **17B**.

Payment shall be at the unit price bid PER CUBIC YARD. Measurement shall be based on the field dimensions of excavated test pit areas.

ITEM NO. C.14 – APPROVED AGGREGATE

Work under this item shall include furnishing, placing, and compacting all approved coarse aggregate material in accordance with the specifications for the work areas. This item shall include all coarse aggregate backfill material (PennDOT 2A), placement and compaction of backfill material. This item shall include all required backfill of utility trenches, foundations, abandoned basements, final grading, and roadway subbase required to complete the work at each demolition site and watermain abandonment site in S. Canal Street in accordance with the drawings and specifications.

Payment shall be made at the unit price bid PER CUBIC YARD.

ITEM NO. C.15 - SPREADING, GRADING, AND COMPACTION OF APPROVED CLEAN FILL FROM OFF-SITE SOURCES

Work under this item includes furnishing all labor, materials, and equipment to place, grade, and compact approved clean fill from off-site sources.

Payment shall be at the unit price bid per CUBIC YARD of restoration complete in place. Measurement shall be based on the field dimensions of the restored area.

ITEM NO. C.16 – FLOWABLE BACKFILL, PENNDOT TYPE C OR D FOR SUBSURFACE BUILDING VOIDS, AND VAULTS UNDER SIDEWALK

Work under this item includes formulating, furnishing, and placing an approved flowable fill material into locations indicated on Contract Documents including applicable drawings, or as directed in the field. Work under this item shall include, but not be limited to, all equipment, labor, materials formulation cost, cement, fly-ash, fine aggregate, additives, plugs, temporary bulkheads, excavation, water fees, testing, and proper disposal of all unsuitable and surplus materials.

Payment will be made by the unit price bid per CUBIC YARD complete in place. Measurement shall be based on the volume of fill used.

ITEM NO. C.17A – EXCAVATED MATERIAL TESTING, REMOVAL & OFF-SITE DISPOSAL – RESIDUAL WASTE

Work under this item includes testing, removal, hauling, and disposal of excavated material associated with utility terminations, test pits, subsurface excavation for building demolition, and other excavation work as required on the contract drawings or as directed by the Owner or Owner's Field Representative. This item does not include disposal of building demolition debris or building foundation demo.

Included in this item are all costs associated with the stockpiling including double handling, sampling, testing, required permitting of excess excavated material as required for PADEP Form U Disposal of Waste, and requirements of the disposal facility classification.

Payment will be made by the unit price bid per TON of material removed from site.

ITEM NO. C.17B – EXCAVATED MATERIAL TESTING, REMOVAL & OFF-SITE DISPOSAL – HAZARDOUS WASTE

Work under this item includes testing, removal, hauling, and disposal of excavated material associated with utility terminations, test pits, subsurface excavation for building demolition, and other excavation work as required on the contract drawings or

as directed by the Owner or Owner's Field Representative. This item does not include disposal of building demolition debris or building foundation demo.

Included in this item are all costs associated with the stockpiling including double handling, sampling, testing, required permitting and USEPA reporting of excess excavated material as required for PADEP Form U Disposal of Waste, requirements of the USEPA, and disposal facility.

It is the responsibility of the Contractor to determine which permits are required and to provide copies of such permits to ALCOSAN, prior to transporting any such wastes. All hazardous waste materials (including decontamination water) removed must be transported for offsite management at a USEPA permitted Treatment, Storage, and Disposal (TSD) facility.

Payment will be made by the unit price bid per TON of material removed from site.

ITEM NO. C.18 – PAVEMENT MILLING

Includes furnishing all labor, equipment, and material necessary to mill and clean the paved areas to the limits shown in the Contract Documents including applicable drawings. Milling shall be to a depth of up to 2.5 inches below finished grade and in accordance with the governing agency's (City of Pittsburgh, Allegheny County, PennDOT) specifications and requirements and as shown in the Contract Documents including applicable drawings. Work shall include saw cutting, milling, disposal of waste material, and cleaning of milled street or parking lot. In areas with existing asphalt overlaid over blockstone or brick pavers, work includes milling to the top of blockstone/pavers if less than 2.5 inch below finished grade.

Work shall also include installing and maintaining traffic worthy temporary plating and asphalt paving, plus replacement or repair of damaged curb, covers, grates, frames, and boxes as directed.

Measurement shall be based on the square yards of paving area milled. Payment shall be based on the unit price bid PER SQUARE YARD.

ITEM NO. C.19 – TEMPORARY COLD PATCH BITUMINOUS PAVEMENT

Work under this item shall include providing and installing all temporary bituminous pavement disturbed by the work to match the existing pavement when required to restore pavement areas for temporary traffic use. All Cold Patch bituminous material shall be as supplied by the Contractor.

Work under this item shall also include tack coat and sealing materials. Work also includes maintenance of cold patch paving, and removal and hauling of cold patch material when final restoration takes place. The Contractor shall furnish his own equipment and labor to haul and place all materials. Duplicate load slips of bituminous

material must be provided for each truck load and submitted to the Owner's field representative.

Measurement for payment of this item shall be in tons based on the unit weight of asphaltic cold patch material, the length and width of the pavement temporarily replaced, and the existing pavement thickness. The work shall include matching all pavement replacement to existing grade.

Payment shall be based on the unit price bid PER TON.

ITEM NO. C.20 – PERMANENT BITUMINOUS PAVEMENT RESTORATION (ALL TYPES)

Work under this item shall include providing and installing Approved Permanent Asphalt Courses (Base course, leveling, binder, wearing, Superpave) as required by the applicable municipality or PENNDOT standard to match the existing pavement when required to restore pavement areas. All permanent bituminous material shall be supplied by the Contractor. Any supplier shall be an approved supplier to the municipality or PENNDOT.

Work under this item shall also include tack coat and sealing materials. Work also includes maintenance of permanent paving for 30 calendar days after restoration takes place. The Contractor shall furnish his own equipment and labor to haul and place all materials. Duplicate load slips of bituminous material must be provided for each truck load and submitted to the Construction Manager.

Measurement for payment of this item shall be in tons based on the unit weight of asphaltic material, the length and width of the pavement replaced, and the existing pavement thickness. The work shall include matching all pavement replacement to existing grade. Joint material and traffic zone paint to match existing are incidental to this item.

Payment shall be based on the unit price bid PER TON.

ITEM NO. C.21 – CONCRETE PAVING BASE AND PAVEMENT W/ REINFORCEMENT

Work under this item shall include furnishing all labor, equipment, and material necessary to replace pavement areas to match existing for the full pavement section depth including Street Subbase and Concrete Paving Base or Concrete Street Replacement. Joint material and traffic zone paint to match existing are incidental to this item. Any Permanent bituminous overlay, bituminous base course or other bituminous product installed shall be paid for under separate unit priced item.

Measurement and payment shall be PER CUBIC YARD. The quantity measured for compensation shall be the computed volume of cement concrete placed in the reinforced

street pavements in accordance with the contract plans or as ordered by the OWNER in the field. No payment will be made for concrete in excess of the existing street slab(s) dimensions, or dimensions shown on pavement details, unless ordered to be placed by the Owner/Construction Manager in the field.

ITEM NO. C.22 – CONCRETE DEEP CURB

Work under this item includes the installation of deep concrete curb in accordance with details shown in the Contract Documents and/or current City of Pittsburgh Construction Standards. Work under this item shall include but not be limited: removing existing curb. Saw or other cutting as needed; performing any required demolition, excavation and disposal of any unsuitable material; providing and installing all concrete in place, all steel reinforcement in place, dowel bars, mortar paste, expansion joints, broken stone drains; restoring all sidewalks disturbed or damaged during construction.

Payment will be made for the unit price per LINEAR FOOT of new curb installed.

ITEM NO. C.23 – CONCRETE SIDEWALK

Work under this item includes the replacement concrete sidewalk in accordance with details shown in the Contract Documents and/or current City of Pittsburgh Construction Standards. Work under this item shall include but not be limited: Saw or other cutting as needed; performing any required demolition, excavation and disposal of any unsuitable material; providing and installing all concrete in place, all steel reinforcement in place, dowel bars, mortar paste, expansion joints, broken stone drains; restoring all sidewalks disturbed or damaged during construction.

Payment will be made for the unit price per SQUARE YARD of new sidewalk installed.

ITEM NO. C.24 – 4 INCHES TOPSOIL, FERTILIZING, SEEDING, AND VEGETATIVE STABILIZATION

Work under this item includes furnishing all labor, materials, and equipment to finish grade, apply four inches of topsoil, seed, and vegetative stabilization of landscaped and seeded areas. Vegetative stabilization includes straw or erosion control blanket based on finished grade slope requirements.

Payment shall be at the unit price bid per SQUARE YARD of restoration complete in place. Measurement shall be based on the field dimensions of the restored area.

ITEM NO. C.25 – DEMOLITION OF 853 S. CANAL STREET STRUCTURES

Measurement and payment will be made PER LUMP SUM.

This item will include all labor, material, and costs associated with complete demolition, removal, and off-site disposal of the building and garage structure as indicated in the drawings and specifications.

This item includes lead and asbestos material abatement, removal, and disposal as required to remove suspected lead and asbestos containing materials as outlined in the two March 2024 853 S. Canal Street Testing Reports included in the Contract Documents.

ITEM NO. C.26 – ADDITIONAL PAINT & ASBESTOS TESTING, CONTAINMENT, AND REMOVAL OF MISCELLANEOUS HAZARDOUS MATERIAL AS DIRECTED BY OWNER

Work under this item shall include the furnishing of all labor, equipment and materials to complete testing, removal and disposal of miscellaneous contaminated material other than asbestos and soil as directed by Owner and as defined in the Hazardous Material Abatement Specification, including, but not limited to those materials listed in sections 3.04 through 3.10 of that specification. Containment and testing shall be in accordance with all applicable local and state codes.

Payment of this item shall represent Contractor's cost for all labor, material, overhead, and profit associated with work performed under this allowance. If final cost exceeds the allowance amount specified, then the overage will be added to final payment. If final cost is less than the allowance amount, then the cost differential will be subtracted from the final amount of the contract.

Payment for this item will be PER LUMP SUM.

ITEM NO. C.27 – MISCELLANEOUS WORK FOR A FULL TIME CREW

This item shall cover all expenses involved in having a crew of workers and equipment at a site performing miscellaneous work, not specified by other unit priced items, and as directed by the Owner.

If this item is used for time spent waiting by a crew as a result of actions by and directed by the Owner, the item shall cover all expenses involved in having a crew of workers and equipment at a site prepared to conduct work but unable to work due to circumstances outside of their control. Delays which are usual and a customary part of demolition work will not be paid for under this item and are considered incidental to the work. Measurement for payment shall be based on the actual number of hours spent performing the indicated work.

Payment shall be PER CREW HOUR for a full crew(s); labor and equipment cost for work and/or time spent on-site which is not defined by any other contract unit prices. A full crew is defined to consist of: foreman, front-end loader with operator, dump truck

with operator, excavator with operator, two laborers, plus support work truck and hand tools.

ITEM NO. C.28 – 15” COMBINED SEWER POINT REPAIR

Work under this item shall include furnishing all labor, equipment, and material necessary for an excavated repair to replace up to 10 linear feet of 15” VCP combined sewer with SDR-26 sewer pipe.

Includes all saw cutting, unclassified excavation, 15” SDR-26 sewer, transition couplings, aggregate pipe zone bedding and backfill within excavation width up to final grade, installation and removal of all sheeting, bracing, and shoring of trench and other utilities, and trench dewatering.

Testing and disposal of excavated materials will be paid under Item 17A or 17B. Restoration will be paid for under other items in the contract.

Payment for this item will be PER LUMP SUM.

2.5 BYPASS PUMPING

The **CONTRACTOR, at any time, may be required to bypass pump as directed to facilitate an inspection, repair or to mitigate a sewer overflow.**

Bypass pumping (when applicable) - The contractor shall supply the pumps, conduits, and other equipment necessary to divert the flow of sewage around the pipe segment(s) and diversion chamber in which work is to be performed. The bypass system shall be of sufficient capacity to reduce the flows to acceptable levels. The contractor will be responsible for furnishing all necessary labor and supervision to set up and operate the bypassing system including provisions for traffic control, if required.

When flow in a sewer line is bypass pumped, sufficient precautions shall be taken by the contractor to protect the sewer lines from damage that might result from sewer surcharging. Further, precautions must be taken to ensure that sewer flow control operations do not cause flooding or damage to public or private property being served by the sewers involved. In no case shall bypass pumping of a line result in either a direct or indirect discharge from the sewer.

2.6 DEBRIS DISPOSAL

Debris from the work shall be disposed of at the following locations, or other locations approved by Owner:

- A. Allied Waste, Route 980, 11 Boggs Road, Imperial PA 15126. The landfill is open weekdays from 12:00 AM to 3:30 PM. Contact is Bernie Wilson and her number is (724) 695-0900.
- B. Waste Management, 600 Thomas Street, Monroeville PA 15146. Contact is Vicky Oakes and her phone number is (412) 824-0678.
- C. Kelly Run Sanitation, 1500 Hayden Blvd., Elizabeth, PA 15037. Contact is Jim Ambrose and his phone number is (412) 384-7569 (ext. 115)

Waste Disposal Manifests will be obtained from ALCOSAN.

2.7 SUBMISSION AND OPENING OF BIDS

Bids shall be submitted on the Bid Form which is attached hereto and shall state the proposed price of the Work (typewritten or in ink), both in words and in figures. Bids must be signed in ink. Bids that are not so priced and signed may be rejected.

The Bid must be submitted intact, sealed and delivered in the envelope which accompanied these Contract Documents, addressed to the Allegheny County Sanitary Authority, Director of Regional Conveyance, 3300 Preble Avenue, Pittsburgh, PA 15233. The Bidder's name and address shall be marked in the upper

left-hand corner, and the words "**SEALED BID FOR CONTRACT NO. 1793 – SITE DEMOLITION CONTRACT II,**" shall be clearly marked in the lower left-hand corner of the sealed envelope. Hand delivered Bids shall be delivered to the Contract Clerks at the Owner's Engineering Department. The envelope shall also bear notation to clearly indicate all Addenda received by its identifying numbers and dates received. It is the responsibility of each Bidder to make sure that its Bid is received by the Owner prior to the date and time set for opening of the Bids. Upon Bidder's failure to comply with the foregoing, the Owner may treat the Bid as "nonresponsive" and return it to the Bidder unopened. Bids will be received at the office of the Owner until 10:00 A.M. prevailing time, on Thursday, October 31, 2024, at which time and place said Bids will be opened publicly and read aloud.

Bids must be firm. **If a Bid is submitted with conditions or exceptions or not in conformance with the terms and conditions of the Contract Documents, it may be rejected.** The Bid may also be rejected if the product or Work offered by the Bidder is determined by the Owner not to be in substantial conformance with the Contract Documents including the Specifications.

Bidder shall not detach and submit Bid pages separately but shall submit their Bids bound with the complete volume of Contract Documents, including all pages correctly assembled.

The Bid should be properly executed and accompanied by all Bonds, Certificates, Questionnaire Forms and other supporting information and documents, as described in the Bid Form.

2.8 SUPPLEMENTARY INFORMATION PACKAGE

- A. After the Bid opening, upon request of the Owner, the Apparent Low Bidder shall be required to submit, prior to the award of the contract, quadruplicate copies of a Supplementary Information Package as described in this Section. The request shall be made solely for the purposes of the Owner's evaluation and review of all proposed materials, equipment, and items of work and determination of conformance with the Contract Documents.
- B. The Supplementary Information Package shall include all such documentation as may be required elsewhere in the Contract Documents and all data and information deemed appropriate by the Bidder to completely describe its respective offering including but not necessarily limited to the following items:
 1. The information requested in the Information for Bidders **Section 2.27** entitled "Qualifications and Experience of Bidders."
 2. List of all Subcontractors, with information also demonstrating compliance with **Section 2.27** and this **Section 2.8**, as applicable.

3. Listing of Proposed Construction Experience and Equipment.
 4. Qualifications and Licensures of the Engineering Professional conducting design and permitting services.
- C. Upon failure to provide all the supplemental information requested in the Contract Documents, the Owner may (at its discretion) treat the Bid as nonresponsive and the Bid may be rejected for this reason alone.

The Contractor shall clearly demonstrate his approach to cleaning prior to award.

2.9 SPARE PARTS AND SPECIAL TOOLS

This section is intentionally omitted from this Contract.

2.10 AWARD, CONTRACT EXECUTION AND NOTICE TO PROCEED

The Owner may reject all Bids. The Owner may, solely in its own discretion, award the Contract to the lowest responsive and responsible Bidder within **sixty (60) calendar days** from the date of Bid opening. A time extension may be made by the written mutual consent of the Owner and the Apparent Low Bidder.

All Bids will remain open for acceptance by Owner for **sixty (60) calendar days** after the Bid opening.

In the event a Bidder fails, refuses, or neglects to provide any requested information or documents within the time stated in the Contract Documents, the Owner will have the right to reject its Bid as nonresponsive.

The Notice to Proceed will be made by registered letter mailed to the Successful bidder and shall be effective the date of receipt of the mailing. The Owner will endeavor to issue the Notice to Proceed within **ninety (90) calendar days** of the Bid opening and **thirty (30) calendar days** after the Contract is awarded. Any delays caused by the Successful Bidder's failure to provide any required documents within the specified time may, at the Owner's option, cause an equivalent number of days to be added to these timeframes. The Successful Bidder will commence performance immediately upon receipt of the Notice to Proceed. The Successful Bidder should not order any materials or equipment or make any financial commitments concerning this Contract until receiving the Notice to Proceed. Successful Bidders that do Work or prepare to do Work prior to receiving the Owner's Notice to Proceed are proceeding at their own risk.

2.11 CONTRACT DOCUMENTS

Contract Documents may be obtained at the office of the Allegheny County Sanitary Authority, 3300 Preble Avenue, Pittsburgh, PA 15233. A non-refundable fee of **\$100** (delivered by check or money order, no cash will be accepted) shall be required for each set of Contract Documents obtained. If the Owner is requested to mail the Contract Documents, the above fee as well as a check or money order

or the like (no cash will be accepted) must be submitted to the Owner in advance to cover delivery charges ("Cost Advance"). In such case, delivery instructions must be included in the request and only the amount received in excess of the **\$100** fee will be applied to delivery charges. If the Cost Advance is insufficient, the Bidder should anticipate that the Owner will not transmit the Contract Documents. No part of the Cost Advance will be refunded.

Submission of a Bid constitutes a representation by the Bidder to the Owner that the Bidder has reviewed the Contract Documents in their entirety and has analyzed all applicable provisions, terms, conditions and sections and related information in preparation of its Bid. This representation is a material inducement for the Owner's consideration of the Bidder for this Contract.

2.12 "OR-EQUAL" ITEMS

Whenever a product is defined in the Contract documents by trade name and catalogue number of a manufacturer or vendor, the term "or-equal," if not inserted therewith, shall be implied. Any reference to a particular manufacturer's product either by trade name or by limited description is solely for the purpose of more clearly indicating the minimum standard of quality desired, except where a "no substitute" is requested. When a "no substitute" is requested, the Owner will consider Bids for the referenced product only. The term "or-equal" is defined as meaning any other make which, in the sole opinion of the Owner, is of such character, quality and performance equivalence as to meet the standard of quality and performance of the products specified and is such that offering the "or-equal" will not, in the Owner's opinion, constitute a change of the Project.

2.13 ALTERNATE ITEMS

Alternates are optional and are not in lieu of furnishing a Base Bid for the actual Work specified. During the Bid review procedure, the Alternate will not be considered in determining the low responsive, responsible Bidder. The review of the Bids will be based upon the specified Work. The Owner may, but need not, analyze the Alternate for acceptability until after the award of the Contract. The decision of the Owner with regard to the acceptability shall be final.

2.14 QUESTIONS REGARDING CONTRACT DOCUMENTS/ERRORS

In general, no answer will be given to prospective Bidders in reply to an oral question if the question involves an interpretation of the intent or meaning of the Contract Documents, or the equality or use of products other than those designated or described in the Contract Documents. Any information received by Bidders other than by means of the Contract Documents or by Addenda, as described herein, is given informally, for the information and convenience of the Bidder only and is not guaranteed, is without legal effect and may not be used to bind or otherwise obligate the Owner. The Bidder agrees that such information shall not be used as

a basis of, nor will the giving of any such information entitle the Bidder to assert, any claim or demand against the Owner.

To receive consideration, any question, inquiry or request for interpretation or clarification shall be submitted to the Construction Manager in writing, at least **ten (10) calendar days** prior to the advertised date for receipt of Bids. The Owner will review all such questions or requests and may issue Addenda, which will become a part of the Contract Documents, to provide interpretation, clarification or to answer issues or questions so raised which, in the opinion of the Owner, require formal responses. Copies of all Addenda will be delivered or sent, prior to the advertised date for receipt of Bids, to all prospective Bidders known to have received the Contract Documents. Addenda will be delivered by messenger or sent by certified mail, return receipt requested, to prospective Bidders or their designated agents, at the addresses given by them. At its option, the Owner may transmit Addenda by facsimile.

If any alleged errors are noted in the Contract Documents, Bidder should immediately notify, in writing, the Construction Manager and, if confirmed, Addenda will be sent to all prospective Bidders known to have received the Contract Documents.

2.15 REFERENCE INFORMATION

All information given in the Reference Information or in the Contract Documents relating to existing conditions is from the sources presently available to the Owner. All such information is furnished for the information and convenience of Bidders and is not guaranteed. All prospective Bidders agree that as a condition for Owner's review of its Bid that said information shall not be used as a basis for asserting any claims or demands against the Owner. It is understood by all prospective Bidders that they shall be responsible for determining the exact conditions prior to bidding and that they shall not be compensated for what they may feel is extra work because of their failure to discover conditions they could have discovered upon investigation.

2.16 BIDDERS TO INVESTIGATE

Bidders are required to submit their Bids upon the following express conditions which will apply to and be deemed a part of every Bid received:

- A Bidders must satisfy themselves, by personal examination of the Job Site and by such other means as may be necessary or helpful as to the actual and exact conditions existing, the character and requirements of the Work and the difficulties attendant upon its execution and analyze all laws and regulations which may affect the Work. On written advance request, the Construction Manager will provide each Bidder reasonable access to the Job Site to conduct such explorations and tests (at Bidder's own expense) for submission of a Bid. Bidder shall fill all holes and clean up and restore the Job Site to its former condition upon completion of such explorations.

- B If any discrepancies should be found between existing conditions and the Contract Documents, prospective Bidders shall report these discrepancies to the Construction Manager for clarification prior to submitting a Bid. Failure of the Bidder to recognize Job Site conditions that affect the Work shall not be considered sufficient cause for an increase in the Contract Price.
- C The submission of a Bid will constitute an incontrovertible representation of Bidder that Bidder has and will comply with every term, condition and requirement of the Contract Documents and that the Contract Documents are sufficient in scope to convey all terms, conditions and requirements for performance and furnishing of the Work.

2.17 APPROXIMATE ESTIMATE OF QUANTITIES

Any estimate of quantities of Work to be done and Materials to be furnished in these Contract Documents is an approximation and is given only as a basis of calculation upon which to determine the lowest Bidder. The Owner does not assume any responsibility for the quantities. The Bidder specifically agrees not to plead misunderstanding or deception because of such estimates, or of the character of Work or location, or other condition pertaining thereto.

By executing this contract, Contractor agrees that:

- (a) Quantities. The quantities given on the contract plans or in the supplemental specifications for the various items of Work are estimates of the amount required to complete this contract, with the exception of certain items designated as contingent items on the contract plans or supplemental specifications for which the extent and location could not be approximately ascertained prior to the commencement and actual progress of the Work and for which nominal quantities are given in unit prices under which Contractor shall do the Work to the extent and in the location ordered, subject to the limitations stipulated in this Section.
- (b) Estimates. Contractor is satisfied with the estimates given on the contract plans or on supplemental specifications for determining the prices for which it agrees to do the Work required by this contract. Contractor will not at any time dispute or complain of such estimates nor assert that there was any misunderstanding in regard to the nature of the Work. Contractor further agrees that the extent and location indicated on the contract plans for the several items of the Work are approximate only with the exception of contingent items which are nominal and that it will do the Work under the several items included in this contract in conformity with orders given by the Owner regardless of changes in extent or location, subject however to the limitations and qualifications hereinafter in paragraphs (c) and (d) of this section and that payment made at respective unit prices bid for work performed in conformity therewith shall be full compensation.

- (c) Quantity of Contingent Items. Contingent items of Work shall be done when ordered by the Engineer and shall be paid for at the contract unit bid price. The purpose of the contracts items designated in the bid form as "C" is to establish unit prices for work not included in other bid items. The Engineer has the right to order that contingent work be provided in smaller or larger quantities than the estimated quantity indicated in the Bid Form. The Contractor shall not have any right to demand payment for, and will not be paid for, any costs associated with the item, including, but not limited to overhead and profit, due to the fact that the item was not used in the work or was used in smaller or larger quantities than those indicated in the bid form. The Contract Sum shall be subject to adjustment according to final measured quantities and the unit prices in the bid will apply to such final quantities.
- (d) Diminished, Extra Work and Omissions. The Owner shall have the right to order extra Work and alterations including but not limited to, alterations in alignment, grade, arrangement, plans, details, quantity and quality of the Work or materials as required by the Contract Documents or to omit any part thereof. All such alterations, extra Work or omissions shall be ordered in writing by the Owner. The Owner, however, need not issue a written order to partially or entirely eliminate contingent items of work.

2.18 HAZARDOUS AND OTHER CONTAMINATED MATERIALS

Hazardous Materials which may be encountered during this work are defined in the Environmental and Hazardous Material Surveys in Appendix B and the Hazardous Materials Abatement Specification. Removal and/or mitigation should be completed in accordance with established regulations and these specifications.

2.19 ACKNOWLEDGMENT OF ADDENDA

Bidders shall acknowledge receipt of all Addenda and signify same by attaching signed copies of each Addendum to the Contract Documents submitted along with their Bid, and by noting each Addendum received, by its identifying number and date received, on the face of its sealed Bid envelope.

2.20 RISK OF LOSS/BID PRICES

All prices quoted shall include material delivered or obtained by the Bidder to or for the Owner F.O.B. at the Job Site. All transportation charges shall be prepaid, and the risk of injury, damage or loss in transit shall be borne by the Successful Bidder.

Such injury, damage or loss shall not release the Successful Bidder from any contractual obligations imposed in the Contract Documents. For Owner-Furnished Equipment to be installed under this Contract, prices quoted shall include materials, equipment and labor to load, transport and unload such items from the Owner's storage area to the Job Site, including all risks for damage of this equipment from the time these items are turned over to the Successful Bidder until the completion of the Contract.

2.21 TAX EXEMPTIONS

The Bidders shall take notice of and shall be responsible for any local or State taxes levied and applicable, and the costs for the same shall be included as part of this Bid. Sales to the Owner may be exempt from Pennsylvania Selective Sales and Use Taxes. Certain of the Bidder's tax obligations are described in more detail in **Section 3.20** of the **General Conditions** entitled, "**Sales and Use Tax.**"

2.22 BID SECURITY/CONTRACT EXECUTION

Bids shall be accompanied by a Certified Check or properly executed Bid Bond on the form included herein, with corporate surety approved to do business in the Commonwealth of Pennsylvania and satisfactory to the Owner and with valid Power of Attorney attached, in the amount of not less than **Ten percent (10%)** of the total Lump Sum Price quoted under the Bid, payable to the Allegheny County Sanitary Authority, as security that the Bidder, if awarded the Contract, shall enter into a written Contract with the Owner, on the form included herein, and supply to the Owner all required Bonds and all other documents, materials or items required to be executed, delivered or supplied by it.

Upon failure on the part of such Bidder to enter into a written Contract with the Owner (and return all required documents to the Owner, including Performance and Payment Bonds and Insurance Certificates, etc., after proper execution) within **ten (10) calendar days** (not including Sundays or Legal Holidays) from the date of mailing of such Contract to it at the address given in its Bid, such defaulting Bidder and its Surety shall be liable to the Owner for the damages sustained by the Owner by reason of such default. In such event, the Bidder's liability shall not be limited to the amount of the Bid security which accompanied its Bid. If the Bid security were a certified check, such check shall be cashed by the Owner and deposited forthwith to the Owner's account. If the Owner's actual damages are less than the amount deposited, the excess shall be returned to the defaulting Bidder. No allowance for interest or the like shall be paid or payable by the Owner on any Bid security.

The Bid security of any Bidder that the Owner believes may receive the award may be retained by the Owner until the earlier of the tenth calendar day after the Effective Date of the Contract or the sixty-first calendar day after the Bid opening.

2.23 WITHDRAWAL OR MODIFICATION OF BIDS

The attention of Bidders is directed to the fact that, in submitting its Bid, the Bidder agrees that it will not withdraw it within **sixty (60) calendar days** after the actual date of opening of Bids or for **one hundred twenty (120) calendar days** if so permitted under applicable law, or for such longer period as may be agreed to by the Bidder. Upon submission of a proper request to the Owner, in writing, and identification of the one making the request, a Bid may be withdrawn, at any time prior to the designated time for the opening of Bids. Certain Bids may be withdrawn after the Bid opening if in compliance with the Act of January 23, 1974, P.L. 9 No. 4 §1 et seq. 73 P.S. §1601 et seq. entitled, "Public Contracts - Withdrawal of Bids" (for purposes of this Section, the "Act") subject to the

limitations and conditions contained therein. Included in the provisions of the Act is a requirement that the Bidder present credible evidence to the Owner within two (2) working days after opening the Bids of a clerical mistake, as opposed to a judgment mistake, that was actually due to an unintentional and substantial arithmetical error or an unintentional omission of a substantial quantity of work, labor, material or services made directly in the compilation of the Bid.

Unless a Bid has been formally withdrawn as provided above, it shall be deemed open for acceptance until the Contract Agreement has been executed by both the Bidder and the Owner or until the Owner manifests that it does not intend to accept the Bid. Notice of acceptance of any one Bid shall not constitute rejection of any other Bid or a manifestation that Owner does not intend to accept any other Bid.

Any Bidder may modify its Bid by telegraphic or facsimile communication at any time prior to the scheduled closing time for receipt of Bids, provided that such telegraphic or facsimile communication is received by the Owner prior to such closing time and, further, provided that a written confirmation of the telegraphic or facsimile communication, over the signature of the Bidder, was postmarked prior to such closing time. Telegraphic or facsimile modifications shall not reveal the Bid price but shall provide the amount(s) to be added to, subtracted from, or other modifications necessary to be made to the prices or terms of the Bid, so that the final prices or terms will not be known to the Owner until the sealed Bid is opened. If the required **written confirmation** is not received by the Owner within **two (2) calendar days** (excluding Sundays or Legal Holidays) from the closing time, the Owner may, at its option, refuse to consider or give legal effect to such telegraphic or facsimile communication.

2.24 MORE THAN ONE BID

If more than one Bid is offered by any one Bidder in its own name or in the name of his agent, partner, or other person, then all but the lowest of such Bids will be rejected.

2.25 ALTERATION OF BIDS AND DOCUMENTS

No alteration, erasure, addition or omission of required information, or any change of the Contract Documents is permitted, except in accordance with the provisions of **Section 2.15** hereof entitled, "Questions Regarding Contract Documents/Errors."

2.26 RIGHT TO REJECT OR ACCEPT BIDS

The Owner reserves the right, which is understood and agreed to by all Bidders, to reject any or all Bids; to waive any informality, nonmaterial change or clarification in any part or provision of the submitted Contract Documents; or to accept any Bid, should the Owner determine that it is in its best interest to do so. The Owner's decision on the qualification of any Bidder or the adequacy,

responsiveness, propriety or timeliness of the Bid and/or its decision to reject any or all Bids or to accept any Bid shall be final, binding and uncontestable as to the Bidder.

Any part of the Bid submitted by the Bidder which is unintelligible, or which exhibits any erasure or other manipulation, or is not properly signed or otherwise made up, will, at the discretion of the Owner, be considered nonresponsive and may be rejected for that reason alone.

The Owner may consider the qualifications and experience of subcontractors, suppliers, and other persons and organizations proposed for those portions of the Work as for which the identity of subcontractors, suppliers, and other persons and organizations is requested in the Contract Documents or made by the Bidder.

2.27 QUALIFICATIONS AND EXPERIENCE OF BIDDERS

Each Bidder must be regularly engaged in and have at least the amount of experience specified below in, relevant work. The Contractor shall supply a complete record of experience for the following:

1. **Foreman Qualifications** – Foreman of the crew shall have at least **five (5) years** of experience.
2. The Company performing the work must certify that it has not less than **ten (10) years** of experience in relevant work . **The Contractor shall submit a detailed record of experience to the Director within ten days of the bid opening date.**

No award will be made to any Bidder who cannot warrant, and upon request cannot demonstrate, that it possesses the knowledge, experience, skill, capital, financial capacity, charters, licenses, permits, patents and personnel necessary to satisfactorily enable it to prosecute and complete the Work successfully and perform the Work within the Time for Completion as set forth in the Contract Provisions. The Owner's decision or judgment on these matters will be final, conclusive and binding. The Owner may make such investigations as it deems necessary and the Bidder shall furnish to the Owner, under oath if so required, all such information and data for this purpose as the Owner may request.

2.28 MINORITY AND WOMEN'S BUSINESS ENTERPRISE AND LABOR SURPLUS AREA POLICY

It is the policy of the Owner to award a fair share of contracts to minority and women's businesses. The goal of the Authority is that **10 to 25 percent** of all dollars relating to its contracts be **awarded to minority or women's business enterprises**. The Owner will make every effort to meet that goal in its contracts as well as encourage that goal among its contractors, suppliers and their subcontractors.

The Owner uses affirmative steps to assure that minority and women's businesses are used when possible as sources of supplies, equipment, construction, and

services. The Owner encourages its contractors and suppliers to take the same measures when recruiting Subcontractors. Affirmative steps include the following:

- A. Including minority and women's businesses on solicitation lists and contacting them whenever they are potential sources.
- B. Use of area newspapers that serve minority or women's groups for advertising for contracts when work permits. A statement of this policy will be included in the ad text.
- C. Use of minority or women's business associations to contact businesses of this type. A list of these organizations is maintained at the Authority.
- D. Dividing total requirements when economically feasible into small tasks or quantities to permit maximum participation of minority and women's businesses.
- E. Establishing delivery schedules when the requirements of the Work permit that will allow these businesses to participate.
- F. Requiring each party to a sub-agreement to take the affirmative steps listed above.
- G. Procuring goods and services from labor surplus area firms.

Further information concerning this matter may be obtained from the Owner.

2.29 FICTITIOUS NAME REGISTRATION

Where the Bid is made by an individual or individuals doing business under a fictitious name, there shall be attached to the Bid, Certificates from the Office of the Secretary of the Commonwealth and from the Prothonotary 's Office showing that each individual or individuals are fully registered under the Fictitious Names Act of the Commonwealth of Pennsylvania 1982, Dec. 16, P.L. 1309, No. 295 § 2, 54 Pa. C.S.A. § 301, et. seq. Additional Certificates, in as many copies as may be required shall be furnished to the Owner by the successful Bidder prior to the execution of the Contract.

2.30 NON-PENNSYLVANIA CORPORATIONS

Attention is directed to the fact that if the Bidder is a non-Pennsylvania corporation, it shall obtain a Certificate of Authority to do business in Pennsylvania, as required by the Pennsylvania Business Corporation Law of 1988, approved December 21, 1988, P.L. 1444, No. 177 § 103 amended, 1990, Dec. 19, P.L. 834, No. 198, § 102, 15 Pa. C.S.A. § 4121.

2.31 PRE-BID CONFERENCE

A Pre-Bid Conference will be held via **Microsoft Teams Virtual Meeting** at **10:00 A.M.**, prevailing time, on **Wednesday, September 25, 2024**.

2.32 PATENTS AND PROPRIETARY RIGHTS

Prior to bidding, the Bidder shall acquire through assignment, purchase, license, or other means, all rights required to fully utilize all technology, know-how, trade secrets, inventions, processes, articles, procedures, equipment, apparatus, devices, or any part thereof, and any and all things or matters that are to be used in pursuance of its performance under the terms and conditions of this Contract. Under no circumstances may the Bidder infringe on any patent or any other proprietary rights of third parties in its performance under the terms and conditions of this Contract.

In the event that the Owner shall have any reason to believe that any Bid or performance of this Contract will in any way infringe on any patent or proprietary rights of third parties, the Owner may, at its sole discretion, reject any such Bid or take such other measures that it deems to be in its best interest (including requiring the Bidder to post security). The Bidder will defend, indemnify and save harmless Owner, and all persons acting for or on behalf of Owner, from all claims and liability of any nature or kind, including costs and expenses, arising from or occasioned by any infringement or alleged infringement of patent or proprietary rights on any technology, know-how, trade secret, invention, process, article, procedure, equipment, apparatus, device, or any part thereof, to be furnished, utilized or installed by said Bidder, or arising from or occasioned by the use or manufacture thereof, including their use by the Owner. Patents and Proprietary Rights are discussed in more detail in the Contract Provisions.

2.33 MATERIALS

Submittals of a Bidder constitutes a representation by the Bidder that all specified materials and equipment will be available in time for the timely completion of this Contract. The Successful Bidder is responsible for making sure that the progress of the Work is orderly and timely. The Successful Bidder's duties and responsibilities are discussed in more detail in the General Contract Conditions.

2.34 LIST OF MAJOR SUBCONTRACTORS/SUPPLIERS

The Bidder shall submit for approval a list of all subcontractors employed on the Work, whose work to be performed is anticipated to be in excess of **One Hundred Thousand Dollars (\$100,000.00)**, or **five percent (5%)** of the **Lump Sum Price**, whichever is greater, with a list of Work they are to perform. Bidders are advised that they must submit a complete list of subcontractors, as requested. Failure to provide this information will, at the Owner's election, make the Bid nonresponsive or constitute a breach of the awarded Contract. The Bidder is also cautioned that

should the Contract be awarded to it, it must use the subcontractor named in its list of subcontractors for each of the items listed, unless otherwise directed in writing by the Owner.

2.35 NEW OR REMANUFACTURED EQUIPMENT

This section is intentionally omitted from this Contract.

2.36 ALCOSAN CONSENT DECREE

Bidders are advised that **CONTRACT NO. 1793** is being completed in accordance with all terms and conditions of the legal Consent Decree as approved by Allegheny County Sanitary Authority (**ALCOSAN**), United States Environmental Protection Agency (**EPA**), Commonwealth of Pennsylvania Department of Environmental Protection (**PADEP**) and the Allegheny County Health Department. The Bidder, if awarded the Contract, will be acting as an Agent of ALCOSAN and as such will be legally bound to the terms, conditions and provisions as set forth in the Consent Decree.

2.37 SAFETY: OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS

IN THE EXECUTION OF THIS CONTRACT, ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH FEDERAL OCCUPATIONAL SAFETY AND HEALTH STANDARDS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (PL 91-596) AND UNDER SECTION 107 OF THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT (PL 91-54).

The Authority will not be liable for any citations received by the Contractor from OSHA. It is the sole responsibility of the Contractor to comply with OSHA Standards.

2.38 CONFINED SPACE ENTRY REQUIREMENTS

Any work within existing manholes, diversion structures, and access shafts will be classified as "Confined Space" and will require complete compliance with current OSHA and ALCOSAN Standards.

2.39 ACCESS TO WORK AREAS

The Contractor is responsible for obtaining all necessary permits and the corresponding fees needed for the Work and the transporting of any equipment or material over private property and public streets. It is further the Contractor's responsibility to obtain the necessary permits and/or permission from the various municipalities, Commonwealth of Pennsylvania, and/or owners of private properties. The cost of construction or improvement of any access route to the project site(s) shall be the responsibility of the Contractor.

At the conclusion of the Work, at the Contractor's expense, the Contractor shall restore all access routes and all other areas disturbed due to the Work, to their original state prior to the Work.

2.40 SPECIAL NOTICE REGARDING MAINTENANCE AND PROTECTION OF TRAFFIC

Streets shall not be unnecessarily obstructed and the Contractor shall take such measures as may be necessary to keep the street or road open and safe for traffic. The Contractor shall be responsible for obtaining all necessary permits and the fees associated with these permits.

2.41 COMPLIANCE WITH LAWS

The Contractor shall comply with the regulations of all regulatory agencies having jurisdiction including, but not limited to, **EPA, PADEP, OSHA regulations, US Army Corps of Engineers, US Coast Guard, ACHD, and the Allegheny County Soil Conservation District regulations.** No bypassing of sewage, as a result of the Contractor's operations, shall be allowed. Also, in order to perform the obligations set forth in the Contract and the Work, the Contractor shall be responsible for becoming familiar with the obligations and requirements of the Consent Decree and shall perform the Work in a manner so as not to cause the Owner to fail to perform, violate, or untimely perform, any obligation or requirement of the Consent Decree. Also, from time to time, the Contractor may be requested to, and shall, provide the Owner with verifications and/or other documents which relate to the Work and which may be required by, and/or necessary for, the Consent Decree, and/or to attest to and/or verify the accuracy and/or completeness of the Work or documents or submittals provided in regard to the Work.

2.42 ACCESS TO MANHOLES AND DIVERSION STRUCTURES

Where access to the various manholes and diversion structures must be cleared of heavy vegetation, the Contractor shall perform the clearing of pathways to facilitate mobilization of his equipment. Any vegetation or other debris cleared by the Contractor shall be removed and disposed of properly by the Contractor.

2.43 PROPERTY CLEANING

Immediately upon completion of any work, it shall be the Contractor's responsibility to clean the entire area of all debris. All debris is to be disposed of properly.

2.44 CONTRACTOR NOT TO OPERATE EXISTING VALVES AND/OR OTHER EXISTING SYSTEM APPURTENANCES

The Contractor shall schedule, maintain, and coordinate all activities and shall cooperate with the Owner's personnel so that a minimum of interruption results. The Contractor shall not operate existing system valves, sluice gates, controls, or other appurtenances at any time, but when the same is needed to facilitate and accommodate activities, he shall request such operation from the Owner. The Contractor shall provide the Owner with reasonable advance notice for such assistance.

2.45 SPECIAL NOTICE REGARDING WATER USE

All bidder's attention is drawn to the fact that the Contractor shall be responsible for all use and obtainment and payment for all permits and payments required for such use in order to acquire water for cleaning and construction purposes on this project. Owner makes no representations regarding the availability of source water or any other utilities required for this project.

2.46 PROJECT LABOR AGREEMENT AND LETTER OF ASSENT

A Project Labor Agreement, which includes a letter of Assent, is included herein.

The Bidder shall, when executing the Contract Agreement, acknowledge that it will abide by the Project Labor Agreement by signing and submitting a Letter of Assent in the format given in Attachment A.

The Contractor shall also require each Subcontractor to execute a copy of the Letter of Assent. The Contractor must be sure that each of its Subcontractors has furnished an executed copy of the Letter of Assent to the CM before the Subcontractor starts work on the Project. The Contractor shall abide by and ensure that each Subcontractor abides by the terms of the Project Labor Agreement.

**SECTION 33 01 30
CURED-IN-PLACE SEWER LINING**

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. The minimum requirements for the rehabilitation of sewer pipelines by the installation of Cured-In-Place Pipe (CIPP) within the existing, deteriorated pipe as shown on the plans included as part of these Contract documents using a resin impregnated fabric tube in accordance with requirements of this Specification .

B. Related Sections:

1. Section 01 29 00, MEASUREMENT AND PAYMENT
2. Section 01 33 00, SUBMITTALS
3. Section 01 50 00, CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

1.2 SCOPE OF WORK

- A. The Contractor shall provide all materials, labor, equipment, and services necessary for traffic control, bypass pumping and/or diversion of sewage flows, cleaning and pre-television inspection of sewers to be lined, liner installation, installation of a pre-liner, reinstatement of existing connections, all quality controls, samples and performance of required material tests, final television inspection, testing of lined pipe system and warranty work, all as specified herein. All items of work not specifically mentioned herein which are required, by the Contractor, to make the product perform as intended and deliver the final product as specified herein shall be included in the respective lump sum and unit prices bid.
- B. The CIPP shall be continuous and joint-less from manhole to manhole or access point to access point and shall be free of all defects that will affect the long term life and operation of the pipe.
- C. The CIPP shall fit sufficiently tight within the existing pipe so as to not leak at the manholes, at the service connections or through the wall of the installed pipe. If leakage occurs at the manholes, the Contractor shall seal these areas to stop all leakage using a material compatible with the CIPP as directed by the Owner at no additional cost to the Owner. If leakage occurs through the wall of the pipe the liner shall be repaired or removed as recommended by the CIPP System Manufacturer. Final approval of the liner installation will be based on a leak free pipe.

- D. Neither the CIPP system, nor its installation, shall cause adverse effects to any of the Owner's processes or facilities. The use of the product shall not result in the formation or production of any detrimental compounds or by-products at the wastewater treatment plant. The Contractor shall notify the Owner and identify any by-products produced as a result of the installation operations, test and monitor the levels, and comply with any and all local waste discharge requirements. The Contractor shall cleanup, restore existing surface conditions and structures, and repair any of the CIPP system determined to be defective. The Contractor shall conduct installation operations and schedule cleanup in a manner to cause the least possible obstruction and inconvenience to traffic, pedestrians, businesses, and property owners or tenants.
- E. The installed CIPP shall be a structurally designed pipe within a pipe, meet or exceed all Contract specified physical properties, fitting tightly within the existing pipe all within the tolerances specified. The installed CIPP shall withstand all applicable surcharge loads (soil overburden, live loads, etc.) and external hydrostatic (groundwater) pressure, if present, for each specific installation location.
- F. The installed CIPP shall be designed for a life of 50 years or greater and shall have a long term (50 year) corrosion resistance to the typical chemicals found in domestic sewage.
- G. All existing and confirmed active connections, unless otherwise shown on the drawings, and any service connections directed by the Owner shall be re-opened robotically or by hand in the case of man-entry size piping per paragraph 3.7.D.
- H. All materials furnished, as part of this Contract shall be marked with detailed product information, stored in a manner specified by the manufacturer and tested to the requirements of this Contract.
- I. Testing and warranty inspections shall be executed by the Owner. Any defects found shall be repaired or replaced by the Contractor.
- J. The Contractor shall furnish all samples for product testing at the request of the Owner. The Contractor shall maintain the chain of custody, deliver the samples to an approved laboratory and pay for all material and product testing performed under this Contract.

1.3 REFERENCES

- A. All references to codes and standards shall be to the latest revised version. Where a difference exists between codes and standards, the requirements of these specifications shall apply.
- B. American Society for Testing and Materials (ASTM):
 - 1. ASTM – D790 Standard Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials.

2. ASTM – D2990 Standard Test Methods for Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics.
3. ASTM – D5813 Standard Specification for Cured-in Place Thermosetting Resin Sewer Pipe.
4. ASTM – F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube.
5. ASTM – F1743 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pull in and inflate and Curing of a Resin-Impregnated Tube.
6. ASTM – F2019 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Thermosetting Resin Pipe (CIPP).
7. ASTM F2561 – Standard Practice for Rehabilitation of a Sewer Service Lateral and Its Connection to the Main Using a One Piece Main and Lateral Cured-in-Place Liner.
8. ASTM F3110 – Standard Practice for Proper Use of Mechanical Trenchless Point Repair Sleeve with Locking Gear Mechanism for Pipes of Varying Inner Diameter and Offset Joints

1.4 QUALIFICATIONS

- A. Manufacturer: The CIPP System shall have a minimum of 500,000 linear feet and 1,000 CIPP reaches successfully installed.
- B. License or certificate from the Manufacturer stating the CIPP Installer is approved and/or qualified to install the Manufacturer's CIPP system.
- C. CIPP Installer: The Contractor shall have a minimum of three (3) years of continuous experience installing CIPP liners in pipe of a similar diameter, length, and complexity as contained in this Contract. A minimum of 150,000 linear feet of shop wet-out liner fabrication is required for CIPP installers that fabricate the liners in house. The CIPP Installer shall provide a list of a minimum of five (5) projects of comparable length, diameter, and/or complexity. The list shall include reference or owner contact names, current phone numbers, diameter(s) and length(s) of lined pipes, and construction start, and construction completion dates. If the Contractor does not have CIPP experience with the system being used, then a manufacturer's onsite representative must be present during all installations of the CIPP system. The Contractor shall provide the Owner with the manufacturer representative's work experience for approval. Work shall not begin prior to the Owner's approval of the manufacturer's onsite representative.
- D. The lead personnel including the superintendent, the foreman, and the lead crew personnel for the CCTV inspection, resin wet-out, the CIPP liner installation, liner curing, and the robotic service reconnections each must have a minimum of three (3) years of total experience with the CIPP technology proposed for this Contract and must have demonstrated competency and experience to perform the scope of work contained in this Contract. Contractor shall provide a list of similar installation projects managed by the lead personnel performing the work on this Contract. The list shall include project names, owner contacts, current phone numbers, and years of experience. Personnel replaced by the Contractor on this Contract, shall have similar,

verifiable experience as the personnel originally submitted for the Project. If the lead personnel do not have CIPP experience with the system being used, then a manufacturer's onsite representative must be present during all installations of the CIPP system. Contractor shall provide the Owner with the manufacturer representative's work experience for approval. Work shall not begin prior to the Owner's approval of the manufacturer's onsite representative.

1.5 SUBMITTALS

- A. Qualifications listed in paragraph 1.5.
- B.
- B. Confined Space Safety Plan.
- C. Contractor shall submit, the following information prior to installation of the lining materials:
 - 1. Manufacturer's certification that the materials to be used meet the requirements of ASTM F1216 and/or D5813 and compliance with these Specifications.
 - 2. Manufacturer's recommendations for shipping, storage, and handling of all components of the CIPP System.
 - 3. Manufacturer's recommended installation pressures, temperatures, and durations for insertion, heat up, curing, and cool down phases.
 - 4. Manufacturer's product data and instructions for the felt tube.
 - 5. Manufacturer's product data and instructions for resin and catalyst system, including MSDS sheets and testing data, in accordance with the appropriate ASTM Standard, that the product meets or exceeds the specification.
 - 6. Manufacturer's product data and instructions for sealing materials.
 - 7. CIPP installation site plan for each shot, including: site layout, field verified pipe diameter and reach lengths, equipment, access points and termination points for each reach, intermediate manhole exposed liner restraining method, and cure schedule.
 - 8. Wet out log for each shot.
 - 9. Design calculations for wall thickness designs in accordance with ASTM F1216, Appendix X1 for fully deteriorated pipe for pipes with less than 10 percent ovality. If pipe ovality is greater than 10 percent, design calculations for wall thickness in accordance with WRC Sewerage Rehabilitation Manual Type II Sewer Design or ASCE Manuals of Reports on Engineering Practice No. 145. All liner design calculations shall be sealed and signed by a registered Professional Engineer in the Commonwealth of Pennsylvania.
 - 10. A detailed bypass plan including a description of how flow from service connections will be managed.
 - 11. A detailed description of the Contractor's proposed procedures for removal of any existing blockages in the pipeline that may be encountered during the cleaning process.
 - 12. A detailed description of the Contractor's proposed procedures for lining through existing gaps or voids in the pipes and controlling infiltration, including, but not limited to, use of pre-liners, internal point repairs, grouting, and soil stabilization
 - 13. A detailed public notification plan, including detailed staged notification to residences affected by the CIPP installation.
 - 14. A detailed plan for the use of temperature monitoring when curing small diameter liner less than 24-inches in diameter.
 - 15. A detailed plan for the fiberoptic cure temperature monitoring system to be installed and used for liner 24- inches in diameter and larger.

16. An odor control plan to demonstrate how odors will be minimized at the project site and surrounding area. Minimum requirements are as follows:
 - a. Measures taken to minimize exposure to personnel and the public.
 - b. Methods for limiting odor within residences in the area of lining operations.
 - c. Ventilation equipment set-up and list of spare ventilation equipment.
 - d. Response plan for public complaints of nuisance odors.
17. A detailed quality control plan that at a minimum includes the following:
 - a. Proposed quality controls to be performed by Contractor.
 - b. Defined responsibilities of Contractor's personnel for assuring that all quality requirements for this Contract are met.
 - c. Contractor shall outline specific repair or replacement procedures for potential defects that may occur in the installed CIPP. Repair/replacement procedures shall be as recommended by the CIPP System Manufacturer and shall be submitted with the quality control plan. Contractor shall make every effort to line through minor defects in lieu of open cut sewer repairs where possible.
 - d. Defects in the installed CIPP that will not affect the operation and long-term life of the product shall be identified and defined. Minor defects that are cosmetic in nature and do not obstruct the flow line or hydraulic capacity of the sewer shall be considered for acceptance by the Owner.
 - e. Repairable defects that may occur in the installed CIPP shall be specifically defined by Contractor based on Manufacturers recommendations, including a detailed step-by-step repair procedure, resulting in a finished product meeting the requirements of the Contract.
 - f. Un-repairable defects that may occur to the CIPP shall be clearly defined by the Contractor based on the Manufacturer's recommendations, including a recommended procedure for the removal and replacement of the CIPP.

1.2 REGULATORY REQUIREMENTS

- A. Contractor shall perform the Work in accordance with the applicable OSHA standards. Particular attention is directed to those safety standards involving entering and working in confined spaces.
 1. Contractor shall submit a safety plan for confined space entry with certification of trained staff. This will be reviewed by the Owner; review of this plan by the Owner does not release the Contractor from total liability for site safety.
 - a. Contractor is expected at all times to follow the safety plan that has been submitted.

1.3 DELIVERY, STORAGE AND HANDLING

- A. Materials shall be shipped, stored, and handled in a manner consistent with written recommendations of the CIPP System Manufacturer to avoid damage. Damage includes, but is not limited to gouging, abrasion, flattening, cutting, or puncturing. All damaged materials shall be promptly removed from the Site at the Contractor's expense and disposed of in accordance with all current applicable agency regulations and shall be replaced at no additional cost to the Owner.
- B. The CIPP shall be maintained at a proper temperature in refrigerated facilities as needed to prevent premature curing at all times prior to installation. Any CIPP showing evidence of premature curing shall be rejected for use and shall be removed from the Site immediately.
- C. On site storage locations shall be approved by the Owner.

1.4 SITE CONDITIONS

- A. Environmental Requirements: Do not perform the Work of this Section when weather conditions or the conditions of materials are such that in the opinion of the Owner work cannot be performed satisfactorily.
- B. Contractor may be required to demobilize from the intended lining work site and remobilize at a future time due to field conditions (weather, storm flows, traffic control, property owner access limitations) not suitable for the installation of the proposed liner. Neither additional payment nor claims for delay shall be made by the Contractor for remobilization due to field conditions.
- C. Existing Conditions: Preliminary television inspections may have been conducted by others to determine the approximate condition of the existing sewer lines. Inspection reports may not indicate all of the defects present in the sewer lines. Additional defects discovered by the Contractor during cleaning and inspection will be verified by the Owner.
 - 1. It is expressly understood that the Owner will not be responsible for any interpretations or conclusions drawn by the Contractor from the reports or inspections referred to herein.
- D. Protection: Provide adequate protective measures to protect public pedestrian and vehicular traffic on streets and walkways.
 - 1. Signs, signals, and barricades used shall conform to Section 01 50 00, Traffic Maintenance.
- E. Protect sewer main piping and manholes from damage due to operations associated with Work of this Section. Repair any sewer main or piping and manholes damaged because of doing work of this Section at no additional cost to the Owner. Remove any equipment which has hung up or becomes lost in the sewer at no additional cost to the Owner. Contractor will be responsible for recovering any equipment that becomes lodged in the sewer during the Work including, but not limited to, any cost associated with the required excavation, restoration, repairs to pipes and manholes as needed to restore the pipeline and appurtenances back to their original condition.

1.5 WARRANTY

- A. The materials used for the project shall be certified by the Manufacturer for the specified purpose. Contractor shall warrant the liner material and installation for a period of 1 year from the date of final completion of the Contract. During the Contractor warranty period, any defect which may materially affect the integrity, strength, function and/or operation of the pipe, shall be repaired at the Contractor's expense in accordance with procedures included in this Section and as recommended by the Manufacturer.
- B. On any Work completed by the Contractor that is defective and/or has been repaired, the Contractor shall warrant this work for 1 year in addition to the warranty required by the Contract.
- C. After a pipe section has been lined and for a period of time up to 1 year following completion of the Project, the Owner may inspect all or portions of the lined system. The specific locations will be selected at random by the Owner and will include all sizes of CIPP from this Project. If it is found that any of the CIPP has developed abnormalities since the time of "Post

Construction Television Inspection,” the abnormalities shall be repaired and/or replaced as defined in paragraph CIPP Repair/Replacement and as recommended by the Manufacturer. If, after inspection of a portion of the lined system under the Contract, problems are found, the Owner may televise all the CIPP installed on the Contract. All verified defects shall be repaired and/or replaced by the Contractor and shall be performed in accordance with this Section, all at no additional cost to the Owner.

PART 2 PRODUCTS

2.1 MATERIALS

A. Fabric Tube

1. The fabric tube shall consist of one or more layers of absorbent non-woven polyester-felt fabric or fiberglass (a mixture of the two differing systems in the project shall not be allowed) and meet the requirements of ASTM F1216, ASTM F1743, ASTM D5813, and ASTM F2019. The fabric tube shall be capable of absorbing and carrying resins, constructed to withstand installation pressures and curing temperatures and have sufficient strength to bridge missing pipe segments, stretch to fit irregular pipe sections, negotiate bends, and accommodate defects in the existing pipe. Contractor shall submit certified information from the felt manufacturer on the nominal void volume in the felt fabric that will be filled with resin.
2. Regardless of the system selected, system shall employ a protective coating or sleeve on the liner to eliminate contamination and resin loss while in transport and prior to liner installation.
3. Liner materials shall be chemically resistant and shall withstand internal exposure to domestic sanitary sewer chemicals in the concentration minimums as occur in a municipal sewer system. Additionally, liner materials shall be resistant to external exposure to soil bacteria and any chemical exposure which may be due to the material in the surrounding soil.
 - a. In the event of unsuitable chemical residue remaining on the pipe walls after cleaning, Contractor shall either provide a material resistant to those residues or a neutralizing barrier material so that the chemical does not have a deleterious effect on the liner.
4. The wet-out fabric tube shall have a uniform thickness and excess resin distribution that when compressed at installation pressures will meet or exceed the design thickness after cure.
5. The fabric tube shall be manufactured to a size and length that when installed will tightly fit the internal circumference, meeting applicable ASTM standards or better, of the original pipe. Allowance shall be made for circumferential stretching during installation. The tube shall be properly sized to the diameter of the existing pipe and the length to be rehabilitated and be able to stretch to fit irregular pipe sections and negotiate bends. Contractor shall determine the minimum tube length necessary to effectively span the designated run between manholes. Contractor shall verify the lengths in the field prior to ordering and prior to impregnation of the tube with resin, to ensure that the tube will have sufficient length to extend the entire length of the run. Contractor shall also measure the inside diameter of the existing pipelines in the field prior to ordering liner so that the liner can be installed in a tight-fitted condition.
6. The minimum length of the fabric tube shall be that deemed necessary by the installer to effectively span the distance from the starting manhole to the terminating manhole or access point, plus that amount required to run-in and run-out for the installation process.

7. The outside and/or inside layer of the fabric tube shall be coated with an impermeable, flexible membrane that will contain the resin and facilitate, if applicable, vacuum impregnation and monitoring of the resin saturation during the resin impregnation (wet-out) procedure.
8. No material shall be included in the fabric tube that may cause de-lamination in the cured CIPP. No dry or unsaturated layers shall be acceptable upon visual inspection as evident by color contrast between the tube fabric and the activated resin containing a colorant.
9. The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made. The hue of the color shall be dark enough to distinguish a contrast between the fully resin saturated felt fabric and dry or resin lean areas.
10. Seams in the fabric tube, if applicable, shall meet the requirements of ASTM D5813.
11. The nominal fabric tube wall thickness shall be constructed, as a minimum, to the nearest 0.5-millimeter increment, rounded up from the design thickness for that section of installed CIPP. Wall thickness transitions, in 0.5-millimeter increments or greater as appropriate, may be fabricated into the fabric tube between installation entrance and exit access points. The quantity of resin used in the impregnation shall be sufficient to fill all the felt voids for the nominal felt thickness.

B. Resin

1. The resin shall be a corrosion resistant polyester or vinyl ester resin and catalyst system or epoxy and hardener system that, when properly cured within the tube composite, meets the requirements of ASTM F1216, ASTM F1743, or F2019, the physical properties herein, and those, which are to be utilized in the design of the CIPP for this project. The resin shall produce CIPP which will comply with or exceed the structural and chemical resistance requirements of this Specification.
2. The resin to tube ratio, by volume, shall be furnished as recommended by the Manufacturer.

C. Hydrophilic End Seals

1. Ends shall be sealed with a sealing material that is recommended by the CIPP Manufacturer and shall be compatible with the CIPP/resin system to provide a watertight seal. Hydraulic cements and quick-set cement products are not acceptable. Acceptable materials shall be an approved product that will not crack, dry up, or shrink.

D. Preliners

1. Preliners shall be used as deemed appropriate by Contractor to obtain proper cure of CIPP. Contractor shall control resin loss, CIPP thickness, physical properties, contamination of the resin, and blocked or plugged laterals.
2. The preliner tube shall be reinforced plastic sheet formed into a tube sized to fit the host pipe being lined and shall be continuous with the proposed CIPP in length from manhole to manhole. Damage to the preliner tube shall be repaired immediately according to the Manufacturer's recommendations.

E. Lateral Liners

1. Resin impregnated, single-piece cured-in-place lateral and full wrap main connection liner with hydrophilic gasket seals for sealing the CIPP/lateral connection interface and the lateral termination.
2. Design CIPP liner complying with the structural and chemical resistance requirements of ASTM F1216.

- a. Flexural Strength: ASTM D790, Minimum 4,500 pounds per square inch.
- b. Flexural Modulus: ASTM D790, Minimum 250,000 pounds per square inch.
- 3. Fabrication shall comply with the requirements of ASTM F2561, latest edition.
- 4. Lateral liners shall provide a minimum of 3-feet of lateral lining and a minimum of 6-inches of main line lining on both sides of the lateral.
 - a. T-Liner Main to Lateral Lining System by LMK Technologies, LLC.
 - b. LCR by Carylton Corporation.
 - c. Or approved Equal.

F. Internal Mechanical Point Repairs

- 1. Internal mechanical point repairs may be used as deemed appropriate by the Contractor to prepare segments for CIPP installation.
- 2. Mechanical repair sleeves shall consist of a stainless steel body and EPDM compression seal that meet the of ASTM F3110.
- 3. Manufacturers:
 - a. Rausch, Quicklock
 - b. HydraTech, Hydralock
 - c. Or Equal

2.2 CIPP DESIGN CRITERIA

- A. Contractor to control the types and mixing proportions of the materials used, and the degree of cure executed, and to provide a CIPP system that meets or exceeds the minimum properties specified herein.
- B. CIPP shall be designed as a fully deteriorated pipe in accordance with ASTM F1216. The design submittal shall identify the physical properties.
- C. The design engineer shall set the long term (50 year extrapolated) Creep Retention Factor at 50 percent of the initial design flexural modulus as determined by ASTM 790 test method. This value shall be used unless Contractor submits long-term test data (ASTM D2990) to substantiate a higher retention factor.
- D. The cured pipe material (CIPP) shall, at a minimum, meet or exceed the structural properties, as listed below.
 - 1. Flexural Strength (Short-Term):
 - a. Felt tubes: 4,500 pounds per square inch (ASTM D790).
 - b. Fiberglass: as recommended by the Manufacturer.
 - 2. Flexural Modulus of Elasticity (Short-Term):
 - a. Felt tubes: 250,000 pounds per square inch (ASTM D790).
 - b. Fiberglass: as recommended by the Manufacturer.
- E. The required structural CIPP wall thickness shall be based, as a minimum, on the physical properties of the cured composite and per the design of the Professional Engineer and in accordance with the Design Equations contained in the appendix of the ASTM standards, and the following design parameters:

Pipe Condition	Fully deteriorated
Soil Depth (above the crown)	Shall be the deepest of the following: adjacent upstream manhole, adjacent downstream manhole, or deepest point

	between manholes, as field verified by Contractor.
Groundwater Elevation	712'
Ovality (minimum)	2 percent or as measured by field inspection
Soil Density (assumed)	120 pounds per cubic foot
Soil Modulus	700 pounds per square inch
Live Load	AASHTO HS-20
Design Life	50 years
Design Safety Factor	2.0 (1.5 for pipes 36-inch or larger)
Enhancement Factor	7.0
Poisson's Ratio	0.3

2.3 FIBER OPTIC CURE VERIFICATION SYSTEM

- A. A continuous fiber optic cure verification temperature monitoring system shall be installed and used during installation and curing of CIPP liner sections for pipes 24-inches in diameter and larger.
 - 1. The fiber optic cable shall be installed at the invert of the pipe prior to installing the liner per the Manufacturers recommended procedures and be monitored by a computer using a tamper proof database. The system shall be capable of sensing and recording temperatures every inch along the cable and averaging the temperature in 1.5-foot zones at the interface of the liner and the host pipe every 30 seconds and accurately within plus or minus 2 degrees Fahrenheit.

PART 3 EXECUTION

3.1 PRE-INSTALLATION

- A. Owner has shown all existing manhole and/or lamphole access points on the Contract Documents to the best of its knowledge. Owner has no intention to reinstate existing lampholes. CIPP lining shall be continuous through lampholes and final sewer televising shall not begin or end at a lamphole abandoned as part of CIPP lining.
- B. Conduct cleaning and a pre-installation CCTV inspection of each length of pipe to be lined. Contractor shall submit pre-inspection videos using CCTV software (minimum 5 feet on center) for the segments to be lined.
 - 1. Segments shall be cleaned and free of all debris, solids, protruding services, obstructions, and other material that would interfere with the installation of CIPP while recording pre-installation CCTV inspections.
 - 2. Flows greater than 10% of the circumferential area shall be controlled to allow for a full inspection of the pipe.
 - 3. Mineral deposits with a thickness greater than 1/2 of the liner thickness shall be removed prior to lining.
 - 4. If inspection reveals an obstruction or pipe defect that cannot be removed by conventional sewer cleaning/protruding tap cutting equipment, Contractor shall immediately notify the Owner in writing.

- C. For segments where ovality is not assigned on Contract Drawings, Engineer shall determine ovality of segments. Contractor shall submit pre-installation CCTV inspection to the Engineer for review and not proceed with liner installation until ovality has been provided and liner thickness has been approved by Owner.
- D. Contractor shall notify the Engineer in all cases where segment ovality is 10 percent or greater or Category 4 or 5 pipe defects are present that may cause defects in the installed liner that would otherwise not meet the acceptance requirements in this Section. Owner will determine if a point repair is necessary. Should Owner deem a point repair is necessary, Owner will require a point repair prior to CIPP lining. Owner also reserves the right to authorize lining a segment with 10 percent or greater ovality or Category 4 or 5 pipe defects. Contractor shall not proceed with any linings of these segments until written approval to conduct a lining from the Owner has been obtained.

3.2 NOTIFICATION

- A. Contractor must contact all residents and/or business establishments residing in the affected area of sewers to be lined a minimum of 7 days before installation, by letter personally delivered to each house, building, or apartment. The letter should give a brief summary of the sewer lining process and steps on how to ease this inconvenience. Also, included should be preventable measures that may prevent potential lining odors into their houses (fill floor traps, etc.) It should also be noted that a personal contact will be made 24 hours before installation to remind residents of curtailing water usage during lining and to answer any questions that residents may have. This personal tour of the area shall be conducted by the Contractor 's personnel with the CM present. There will be no additional payment for this notification process.

3.3 INSTALLATION

- A. Contractor shall provide by-pass for the flow of existing mainline and service connection effluent around the section or sections of pipe designated for CIPP installation. Service connection effluent may be plugged only after proper notification to the affected residence and must be monitored on a regular basis. Service connection effluent shall not remain plugged overnight. Installation of the liner shall not begin until Contractor has installed the required plugs or a sewage by-pass system and all pumping facilities have been installed and tested under full operating conditions including the bypass of mainline and lateral flows. In the event that there is still an unacceptable level of liquid fluid remaining or infiltrating in proposed pipe to be lined, Contractor will take proper steps to control or stop said liquid matter, this being in the form of grouting joints or pipe connections, intercepting or plugging laterals or other conduits, or other Owner approved methods. All fluids should be blocked, diverted, or intercepted and pumped around or past the proposed area to be lined. Once the lining process has begun, existing sewage flows shall be maintained, until the liner tube is fully cured, cooled down, fully televised, and the CIPP ends are finished. Contractor shall submit a detail of the bypass plan and design to the Owner before proceeding with any CIPP installation. Payment for pumping up to 5 million gallons per day shall be included in the bid price per lineal feet of proposed liner.
- B. Contractor shall take precautions to minimize the release of styrene and mitigate styrene odors generated during the setup and CIPP lining process, and prevent such odors from entering structures, businesses, or other types of establishments through service connections or other plumbing fixtures.

- C. Contractor shall perform CCTV of sewer segment immediately prior to and following liner installation. Contractor shall identify all active and capped sewer service connections. As part of Payment Application, Contractor shall provide pre-lining CCTV to Owner in the same submittal as the Post-lining CCTV.
- D. Prior to installation and as recommended by the CIPP System Manufacturer remote temperature gauges or sensors shall be placed inside the host pipe to monitor the temperatures during the cure cycle. Liner and/or host pipe interface temperature shall be monitored and logged during curing of the liner.
- E. To monitor the temperature of the liner wall and to verify correct curing and where specified by the contract documents, temperature sensors can be placed between the host pipe and the liner in the bottom of the host pipe (invert) throughout its length to monitor the temperature on the outside of the liner during the curing process. The temperature sensors can be placed at intervals as recommended by the sensor manufacturer. Additional sensors can be placed where significant heat sinks are likely or anticipated. The sensors, if installed, should be monitored by a computer using a tamper proof data base that is capable of recording temperatures at the interface of the liner and the host pipe.
- F. For pipes 24-inch in size and larger, Contractor shall install and utilize an approved continuous fiber optic cure verification temperature monitoring system during installation and curing of CIPP liner sections.
 - 1. Contractor shall monitor the fiber optic temperature monitoring system during installation of all CIPP liner sections 24 inches in diameter and larger during the curing process.
 - 2. Submit the final summarized gradient chart showing temperature changes over the curing time to the CM.
- G. CIPP installation shall be in accordance with the applicable ASTM standards with the following modification:
 - 1. The wet-out tube shall be positioned in the pipeline using the method specified by the Manufacturer. Care should be exercised not to damage the tube as a result of installation. The tube should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.
- H. Curing shall be accomplished by utilizing the appropriate medium in accordance with the Manufacturer's recommended cure schedule. The curing source or in and output temperatures shall be monitored and logged during the cure cycles if applicable. The Manufacturer's recommended cure method and schedule shall be used for each line segment installed, and the liner wall thickness and the existing ground conditions with regard to temperature, moisture level, and thermal conductivity of soil, per ASTM as applicable, shall be taken into account by the Contractor.
- I. If any temperature sensor or multiple sensors do not reach the temperature as specified by the Manufacturer to achieve proper curing or cooling, the installer can make necessary adjustments to comply with the Manufacturer's recommendations. The system computer shall have an output report that specifically identifies each installed sensor station in the length of pipe, indicates the maximum temperature achieved and the sustained temperature time. Each sensor shall record both the maximum temperature and the minimum cool down temperature and comply with the Manufacturer's recommendations.
- J. Owner will not process Pay Applications without receipt of curing logs from Contractor.

3.4 COOL DOWN

- A. Contractor shall cool the CIPP in accordance with the approved CIPP manufacturer's recommendations.
- B. Temperatures and curing data shall be monitored and recorded, by the Contractor, throughout the installation process to ensure that each phase of the process is achieved as approved in accordance with the CIPP System Manufacturer's recommendations. This data shall be submitted, in writing, to the Owner immediately following the completion of the Site.

3.5 CIPP IN SEPARATE STORM DRAINS

- A. For CIPP installations in separate storm sewers, upon completion of cool down process, Contractor shall flush fully cured and cooled-down CIPP. Flushing shall consist of or jetting entire surface of CIPP twice with clean water.
- B. For CIPP installations in separate storm sewers, at no time shall water, condensate, or any other material be allowed to discharge into downstream outfalls or water bodies if those materials have measurable concentrations of styrene or have a temperature that is greater than 3 degrees Fahrenheit above existing surface water temperatures. Any water, condensate, or other materials that contain styrene or has temperatures greater than 3 degrees Fahrenheit above existing surface water temperatures shall be contained and pumped to the sanitary sewer system.
- C. Styrene air emissions shall comply with Federal requirements.

3.6 FINISH

- A. The installed CIPP shall be continuous over the entire length of a sewer line section and be free from visual defects such as foreign inclusions, dry spots, pinholes, major wrinkles, and de-lamination. The CIPP shall be impervious and free of any leakage from the pipe to the surrounding ground or from the ground to inside the lined pipe.
- B. Any defect, which will or could affect the structural integrity or strength of the lining, shall be repaired at the Contractor's expense, in accordance with the procedures submitted under Paragraph "CIPP Repair/Replacement".
- C. If any of the service connections leak water between the host pipe and the installed liner, the Owner reserves the right to direct the Contractor to seal the connection mainline interface with a watertight connection.
- D. If the wall of the CIPP leaks, it shall be immediately repaired or removed and replaced with a watertight pipe as recommended by the Manufacturer of the CIPP system at no additional cost to the Owner.

3.7 MANHOLE CONNECTIONS AND REINSTATEMENT OF EXISTING SERVICES

- A. A seal, consisting of a resin mixture or hydrophilic seal compatible with the installed CIPP shall be applied at manhole/wall interface in accordance with the CIPP System Manufacturer's recommendations.

- B. Existing services shall be reinstated unless visibly capped or indicated otherwise in the Contract Documents. If so requested, Contractor shall dye test to confirm proper service connections and record results. It is the Contractor's responsibility to make sure that all active service connections are reinstated. All active taps shall be fully opened prior to the Contractor receiving payment for the pipe length.
- C. Reinstatement of existing services shall be made after the CIPP has been installed, fully cured, and cooled down.
- D. A CCTV camera and remote cutting tool or man entry with an approved cutting device shall be used for service reinstatement. The machined opening shall be minimum 90 percent of the service connection opening and the bottom of both openings must match. The opening shall not exceed 100 percent of the service connection opening. The edges of the opening shall not have pipe fragments or liner fragments, which may obstruct flow or snag debris. The pipe shall be sufficiently tight so that there is no annular space between the connection and the liner. In all cases the invert of the sewer connection shall be cut flush with the invert entering the mainline. All laterals shall be brushed to ensure a smooth finish.
- E. If service reinstatements result in openings that are greater than 100 percent of the service connection opening, Contractor shall install a CIPP type repair, sufficiently in size to completely cover the over-cut service connection. No additional compensation will be paid for the repair of over-cut service connections.
- F. Coupons of pipe material resulting from service tap cutting shall be collected at the next manhole downstream of the pipe rehabilitation operation prior to leaving the site. Coupons are not allowed to pass through the system.

3.8 FIELD TESTING AND POST-INSTALLATION CCTV

- A. Contractor shall field verify the finished thickness of the CIPP liner in the presence of the CM. Contractor shall provide a set of certified calibrated calipers, capable of reading in tenths of millimeters for use. Finished liner thickness shall be verified for every pipe segment lined. The coupons to be used for liner thickness verification can be collected from reinstated lateral cutouts, interior manholes on multiple manhole lining shots, and the termination manhole. A total of 3 coupons shall be used and the thickness of each individual coupon shall be reported. The liner thickness shall have a tolerance of minus 5 percent plus 10 percent.
- B. Contractor shall perform a detailed post-installation CCTV inspection in the presence of the CM after installation of the CIPP liner and reinstatement of service connections (completely open, cut, and brushed; no interim cut outs).
 - 1. Immediately prior to conducting CCTV inspection, Contractor shall thoroughly clean the newly installed liner removing all debris and build-up that may have accumulated, at no additional cost to the Owner.
 - 2. The data shall note the inspection date, location of all reinstated service connections, debris, as well as any other defects in the liner, including, but not limited to, gouges, cracks, bumps, or bulges.
 - 3. The finished liner shall be continuous over the entire length of the installation and shall be free of significant visual defects and shall exhibit no evidence of leaks, splits, bubbles, blisters, burns, cracks, breaks, lifts, kinks, delamination or crazing in the liner.
 - 4. If visible defects in a liner are discovered after it has been installed, it shall be removed and replaced with either a sound liner or in accordance with procedures included in this

Section, or new pipe at no additional cost to the Owner. Any methods that involve removing portions of the smooth polyethylene or polyurethane coating will not be accepted by the Owner. Additional payment for repairs shall be made to the Contractor in cases where Owner directs Contractor to make repair in a liner that were solely caused by the host pipe condition and not by Contractor means and methods and where the Contractor notified the Engineer of segment ovality of 10 percent or greater or Category 4 or 5 pipe defects prior to liner installation as required in paragraph 3.1.

5. Continuous unedited digital documentation of the inspection shall be provided to the Owner within 10 working days of the liner installation. This submittal shall be per pipe segment. Owner will not process Pay Applications for pipe segments where lateral reinstatement and final CCTV have not been received by Owner. Costs of televising are incidental to Lump Sum Price bid.

3.9 TESTING AND FINAL ACCEPTANCE

- A. All CIPP sample testing and repairs to the installed CIPP as applicable, shall be completed, before final acceptance, meeting the requirements of these specifications and documented in written form.
- B. Contractor shall collect test coupons for testing in accordance with applicable ASTM test methods to confirm compliance with the requirements specified in these Contract Documents. The specimens shall be cut from a section of installed and reformed liner at the termination point of the installation. The test specimen shall be labeled with Project Number, pipe segment identifier, design thickness and sample date. One location per 1,000 linear feet of CIPP installed shall be tested. The frequency of testing may be increased or decreased at the discretion of the Owner, only in writing. On pipelines greater than 18 inches in diameter, the Owner may at its discretion, require plate samples cured with the CIPP
- C. The physical and short-term flexural properties of the installed CIPP shall be verified through field sampling and laboratory testing. All materials testing shall be performed at the CONTRACTOR's expense, by an independent third-party laboratory.
 1. Flexural properties testing shall be conducted for each specimen per ASTM F1216 and ASTM D790.
 2. Wall thickness measurements shall be conducted for each specimen per ASTM D5813.
- D. The CIPP system installed shall meet the chemical resistance requirements of ASTM D5813. CIPP samples tested shall be of fabric tube and the specific resin proposed for actual construction. It is required that CIPP samples without plastic coating meet these chemical testing requirements.
- E. Final payment for the Project shall be withheld pending receipt and approval of the test results. If properties tested do not meet the minimum physical and thickness requirements, the CIPP shall be repaired or replaced by the Contractor in accordance with procedures included in this Section.

3.10 DETAILS & DIMENSIONS

- A. It shall be the CONTRACTOR's responsibility to verify the dimensions shown on the Drawings in the field and make the necessary adjustments to ensure the correct fit of the material. A complete and accurate as built record as to the location of sewer manholes and

wye branch connections shall be furnished to the Owner by the Contractor, for all work locations, at the completion of the Contract.

3.11 CIPP REPAIR/REPLACEMENT

- A. Contractor shall outline specific repair or replacement procedures for potential defects that may occur in the installed CIPP with the quality control plan. Repair/replacement procedures shall be as recommended by the CIPP System Manufacturer and shall be submitted with the quality control plan and subject to approval by the Owner.
- B. Defects in the installed CIPP that will not affect the operation and long-term life of the product shall be as identified and defined in the quality control plan and approved by the Owner. Defects include, but are not limited to, the following:
 - 1. The liner shall be free of visible defects and shall exhibit no evidence of splits, bubbles, blisters, burns, cracks, breaks, lifts, kinks, delamination, and crazing.
 - 2. Wrinkles in the liner as follows:
 - a. Outside of the flow line: wrinkle height shall not exceed a maximum of 5 percent of the inside diameter of the host pipe. Wrinkles in excess of 5 percent of the inside diameter of the host pipe in the longitudinal direction will be evaluated by the Owner for acceptance.
 - b. Inside of the flow line: wrinkle height in the lower third of the pipe shall not exceed 3 percent of the inside diameter of the host pipe or 0.5-inches, whichever is smaller. Wrinkles in excess of 5 percent of the inside diameter of the host pipe in the longitudinal direction will not be accepted.
- C. Repairable defects that may occur in the installed CIPP shall be specifically defined by the Contractor's quality control plan based on Manufacturer's recommendations and as approved by the Owner, including a detailed step-by-step repair procedure, resulting in a finished product meeting the requirements of this Contract.
- D. If visible defects in a liner are discovered after it has been installed, it shall be removed and replaced with either a sound liner or new pipe at no additional cost to the Owner. Any methods that involve removing portions of the smooth polyethylene or polyurethane coating will not be accepted by the Owner.
- E. Continuous unedited digital documentation of the repaired/replaced liner full pipe segment shall be provided to the Owner within 10 working days of the liner repair. Owner will not process Pay Applications for pipe segments where this final CCTV has not been received by the Owner. Costs of televising are incidental to the repair.

END OF SECTION

SECTION 33 31 11
PUBLIC SANITARY AND STORM SEWER PIPING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Sewer pipe and fittings.
 - 2. Underground pipe markers.
 - 3. Connection to existing manholes.
 - 4. Manholes, Catch Basins, and Inlets.
 - 5. Wye branches and tees.
 - 6. Laterals.
 - 7. Bedding and cover materials.
- B. Related Sections:
 - 1. Section 31 23 16 – Excavation and Backfill
 - 2. Section 03 30 00 – Cast-In-Place Concrete

1.2 MEASUREMENT AND PAYMENT

- A. See Section 01 29 00 Measurement and Payment.

1.3 REFERENCES

- A. ASTM International (ASTM):
 - 1. ASTM C12 – Standard Practice for Installing Vitrified Clay Pipe Lines.
 - 2. ASTM C76 – Standard Specification for Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe.
 - 3. ASTM C425 – Standard Specification for Compression Joints for Vitrified Clay Pipe and Fittings.
 - 4. ASTM C443 – Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
 - 5. ASTM C700 – Standard Specification for Vitrified Clay Pipe, Extra Strength, Standard Strength, and Perforated.
 - 6. ASTM C923 – Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structure, Pipes, and Laterals.
 - 7. ASTM D2412 – Standard Test Method for Determination of External Loading Characteristic of Plastic Pipe by Parallel-Plate Loading.
 - 8. ASTM D3034 – Standard Specification for Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings.
 - 9. ASTM D3212 – Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals.
 - 10. ASTM F477 – Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.

11. ASTM F679 – Standard Specification for Poly (Vinyl Chloride) (PVC) Large-Diameter Plastic Gravity Sewer Pipe and Fittings.

B. American Water Works Association (AWWA):

1. AWWA C105 – American National Standard for Polyethylene Encasement for Ductile-Iron Pipe Systems.
2. AWWA C110 – American National Standard for Ductile-Iron and Grey-Iron Fittings, 3 in. through 48 in. (75 mm through 1200 mm), for Water and Other Liquids.
3. AWWA C111 – American National Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
4. AWWA C150 – ANSI Standard for the Thickness Design of Ductile Iron Pipe.
5. AWWA C151 – American National Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water.
6. AWWA C153 – American National Standard for Ductile-Iron Compact Fittings for Water Service.

1.4 SUBMITTALS

- A. See Section 01 33 00, Submittals.
- B. Product Data: Submit catalog cuts and other pertinent data indicating proposed materials, accessories, details, and construction information.
- C. Submit reports indicating field tests made and results obtained.
- D. Manufacturer's Installation Instructions:
 1. Indicate special procedures required to install Products specified.
 2. Submit detailed description of procedures for connecting new sewer to existing sewer line.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.5 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record location of pipe runs, connections, manholes, cleanouts, and invert elevations.
- B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.6 QUALITY ASSURANCE

- A. Pipe Markings All pipe shall be marked immediately after manufacture as follows:
 1. Diameter, Pipe Class, and Wall.
 2. Date of Manufacture.
 3. Name of Trademark of Manufacturer.
 4. Test Method prior to shipment (Air, Water, or Vacuum).
- B. Perform Work in accordance with the more stringent requirements of the Pittsburgh Water & Sewer Authority, City of Pittsburgh, Allegheny County, PennDOT, and the Owner.

1.7 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.8 PRE-INSTALLATION MEETINGS

- A. Review the Sewer Inspection Reports to verify the location of existing sewer wyes.
- B. See Section 01 31 13 Project Coordination.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Block individual and stockpiled pipe lengths to prevent moving.
- B. Materials shall not be placed on private property without the written permission of the property owner. Pipe may be strung along the pipe alignment route where approved by the OWNER.
- C. Pipe and fittings shall not be dropped.
- D. Take necessary measures to prevent damage to the exterior surface or internal lining of the pipe.
- E. Do not stack pipe higher than recommended by the pipe manufacturer.
- F. Gaskets for mechanical and push-on joints shall be stored in a cool, dry location out of direct sunlight, and not in contact with petroleum products.

1.10 FIELD MEASUREMENTS

- A. Verify field measurements and elevations are as indicated.

1.11 COORDINATION

- A. See Section 01 31 13 Project Coordination.
- B. Comply with PA One Call Requirements.

PART 2 PRODUCTS

2.1 SEWER PIPE AND FITTINGS

- A. Plastic Pipe: ASTM D3034, SDR 26, Poly (Vinyl Chloride) (PVC) material; 4-inch through 15-inch diameter; bell and spigot style rubber ring sealed gasket joint.
 - 1. Joints: ASTM F477 and shall meet ASTM D3212.
 - 2. The pipe stiffness shall be in accordance with ASTM D2412.
 - 3. Fittings: PVC.
 - 4. CONTRACTOR shall use elastomeric waterstops or gaskets to couple all PVC Pipes to concrete structures.
 - 5. Installation of couplings shall conform to the applicable sections of ASTM C923.

6. When transitioning to different pipe material, appropriate flexible coupling will be used to maintain a watertight seal.
- B. Plastic Pipe: ASTM F679, PS 115, PVC material; 18-inch through 36-inch diameter; bell and spigot style rubber ring sealed gasket joint.
 1. Joints: ASTM F477 and shall meet ASTM D3212.
 2. Fittings: PVC.
 3. CONTRACTOR shall use elastomeric waterstops or gaskets to couple all PVC Pipes to concrete structures.
 4. Installation of couplings shall conform to the applicable sections of ASTM C923.
 5. When transitioning to different pipe material, appropriate flexible coupling will be used to maintain a watertight seal.

2.2 FLEXIBLE COUPLINGS

- A. Manufacturers:
 1. Fernco Model.
 - a. 1001 Series - Vitrified Clay to Vitrified Clay.
 - b. 1002 Series - Vitrified Clay to PVC.
 - c. 1003 Series - Vitrified Clay to Ductile Iron.
 - d. 1004 Series - Reinforced Concrete to Reinforced Concrete.
 - e. 1006 Series - Reinforced Concrete to PVC.
 - f. 1051 Series - Ductile Iron to PVC.
 - g. 1055 Series - Ductile Iron to Ductile Iron.
 - h. 1056 Series - PVC to PVC.
 2. Flex-Seal by Mission Rubber.
 3. Or Approved Equal.

2.3 SHIELDED COUPLINGS

- A. Stainless Steel Shear Rings
- B. Manufacturers:
 1. Fernco Models.
 2. Mission Rubber.
 3. Or Approved Equal.

2.4 CONCRETE ENCASEMENT AND CRADLES

- A. Concrete: Conforming to Section 03 30 00, Cast-In-Place Concrete, 4000 psi, 28-day concrete.
- B. Concrete Reinforcement: Conform to Section 03 30 00, Cast-In-Place Concrete and Standard Details.

2.5 UNDERGROUND PIPE MARKERS

- A. Electronically locatable brightly colored plastic ribbon tape, displaying the continuously printed "SEWER" notation, minimum 6-inches wide, 4 mil thick, manufactured for direct burial service.

- B. Tape shall be laid between backfilling lifts over the pipe not less than 2-feet above the pipe and not less than 4-feet below the finished ground surface.

2.6 INSERTABLE LATERAL CONNECTIONS

- A. Wye or Tee Connections
 - 1. Rubber Sleeve and Gasketed PVC Hub, conforming to ASTM F477.
 - 2. Manufacturer List:
 - a. Inserta Tee or Inserta Wye.
 - b. Harco.
 - c. Or Approved Equal.

2.7 BEDDING AND BACKFILL MATERIALS

- A. Bedding and backfill materials shall conform to Section 31 23 16 Excavation and Backfill.

PART 3 EXECUTION

3.1 PREPARATION

- A. Continuous water and sewer service shall be maintained throughout the job. Contractor shall furnish and install temporary cuts and plugs of existing pipes as necessary to maintain said service.
- B. Remove large stones or other hard matter capable of damaging pipe or impeding consistent backfilling or compaction.
- C. Protect and support existing sewer lines, utilities, and appurtenances.
- D. Maintain profiles of utilities. Coordinate with other utilities to eliminate interference. Notify Owner where crossing conflicts occur.

3.2 BEDDING

- A. Excavate pipe trench in accordance with Section 31 23 16 Excavation and Backfill.
- B. Excavate to lines and grades required to accommodate installation of pipe zone bedding.
- C. Dewater excavations to maintain dry conditions and preserve final grades at bottom of excavation.
- D. Provide sheeting and shoring in accordance with Section 31 23 16 Excavation and Backfill.
- E. Place bedding material in accordance with Section 31 23 16 Excavation and Backfill.

3.3 INSTALLATION – PIPE

- A. Unless otherwise approved by the Owner in writing, pipe laying shall be performed only in the presence of the Owner, and the Contractor shall give 24-hour notice of scheduled pipe laying operations to the Owner.
- B. All pipe shall be installed to the lines and grades to match the existing sewer or as directed by the Owner. Contractor shall furnish labor, material, and surveying instruments and tools to establish and maintain all lines and grades from the control points furnished by the Owner.
- C. Grade and alignment of the pipe shall be maintained by the use of laser beams or other methods acceptable to the Owner.
- D. Blocking will not be permitted except where the pipe is to be encased in concrete.
- E. The grade shown on the profile is that of the invert of the pipe. Work not in compliance with these grades will be rejected and shall be corrected by the Contractor at Contractor's expense in a manner acceptable to the Owner.
- F. The pipe shall not be driven down to grade by striking it with a shovel handle, timber, rammer, or other unyielding object.
- G. Pipe laying shall proceed upgrade with hubs up-grade and spigot ends fully entered into hubs. Each section of pipe shall rest upon the pipe bed for the full length of its barrel with recesses excavated to accommodate bells and joints to form a continuous and uniform line without projections, indentations, offsets, or irregularities of any kind.
- H. Backfill material shall be placed and compacted between the pipe and the sides of the trench to hold the pipe in correct alignment. Backfill shall be placed to avoid damage to the pipe. Any pipe that has its grades or joints disturbed after laying shall be removed and re-laid.
- I. Walking or working on the completed pipe line, except as may be necessary in backfilling or tamping, shall not be permitted until the trench has been backfilled to a height of at least 2-feet over the top of the pipes.
- J. Any defective pipe or fitting found in the line shall be removed and replaced without cost to the Owner.
- K. The interior and ends of all pipe shall be thoroughly cleaned during laying operations by means of plugs or other approved methods.
- L. Under no circumstances shall pipe be laid in water and no pipe shall be laid when trench conditions or the weather is unsuitable for such work except by permission of the Owner.
- M. If deemed necessary by the Owner, pipes will be tested for leakage between manholes as the work progresses.
- N. All pipes shall be joined in strict conformance with the Manufacturer's written specifications.

- O. Each section of pipe shall be cleaned and inspected before joining. Assembly shall provide tight, flexible joints that permit movement caused by expansion, contraction, and ground movement.
- P. If unusual joining resistance is encountered or if the pipe cannot be fully inserted into the bell, the Contractor shall disassemble the joint, inspect it for damage, re-clean or replace the joint components, and reassemble the joint.
- Q. At all times when piping installation is not actually in progress, the open ends in place of piping shall be closed by temporary plugs or by other approved means.
- R. If water is in the trench when work is resumed, the plug shall not be removed until all danger of earth or other materials from entering the pipe has passed.
- S. The connection to the existing sewers shall be protected in such a manner to prevent water, dirt, or debris from entering the existing system at any time during construction.
- T. Take all necessary precautions to prevent flotation of the pipe from trench flooding.
- U. Where indicated on the Drawings or required by the Owner, piping shall be placed on a concrete cradle, or concrete shall be placed around pipes for anchors, bedding, and encasement.
- V. Concrete anchors or cradles shall consist of structures composed of concrete built-in trenches to support pipes and to the dimensions shown on the Drawings, or as furnished by the OWNER. In all cases, water shall be kept out of the trench until the concrete encasement or cradle, where used, has hardened or until the pipe sidefills have been placed.
- W. Concrete bedding and encasement shall be composed of concrete placed in trenches without forms as pipe bedding, or encased around pipes, to the dimensions and in the locations designated by the Owner or indicated on the Drawings.

3.4 INSTALLATION - CONNECTION TO EXISTING MANHOLE/STRUCTURE

- A. Core drill existing manhole/structure to clean opening. Using pneumatic hammers, chipping guns, sledgehammers, etc. is not permitted.
- B. Install watertight neoprene gasket and seal with non-shrink concrete grout.
- C. Prevent construction debris from entering existing sewer line when making connection.

3.5 INSTALLATION - WYE BRANCHES AND TEES

- A. Wye branches shall be installed at the locations indicated by the Drawings.
- B. Maintain minimum 5-foot separation distance between wye connection and manhole.
- C. Supply the appropriate size wyes for all lateral connections/reconnections and/or core each lateral to correct size. Unless otherwise directed connections to main sewers will be made with commercially manufactured wye branches and 1/8 bends.

- D. When tapping into an existing pipeline, provide approved saddle wye or tee with stainless steel clamps or core drill the pipe and install watertight approved resilient boot insertable lateral connection. Mount saddles shall then be mounted with solvent cement or gasket and then secured with metal bands.
- E. Holes shall be laid out with a template and then cut with a mechanical hole cutter.
- F. Use standard fittings of the same material and joint type as the pipeline into which they are installed.
- G. Cutting of pipe will not be permitted except in special cases approved by the OWNER.
- H. Unless otherwise directed, wye branches will be installed as shown on Drawings with the branch turned approximately 45 degrees from the horizontal.

3.6 INSTALLATION - LATERALS

- A. Service connections shall be laid and joined in every respect in the same manner specified for installation of pipe and fittings. All sewer service connections shall have a hub-end and be closed with pipe caps as specified.
- B. Termination elevation of all service connections will be determined by the elevation of the service sewer to be connected unless approved by the Owner.
- C. If a transition in sewer lateral pipe must be made during the reconnection of service connections, an approved flexible type coupling or donut, and sealers must be installed. Costs for furnishing and installing the couplings and sealers shall be included in the sewer lateral unit price bid.
- D. The ends of all service connection trenches shall not be backfilled until the elevation and location of the service connection has been inspected and approved by the Owner.
- E. Remove by drilling and wedging or some other approved method other than blasting any rock encountered in service connection trenches within 25-feet of any building. Rock shall be removed to a point not less than 5-feet beyond the end of the lateral installation.
- F. Where the depth of the main pipeline warrants, riser type laterals shall be constructed from the wye branch.
- G. Maintain minimum 5-foot separation distance between laterals.
- H. Install watertight plug, braced to withstand pipeline test pressure thrust, at termination of lateral. Install a 2-inch by 2-inch temporary marker stake extending from end of lateral to 12-inches above finished grade. Paint top 6-inches of stake with fluorescent green paint.

3.7 BACKFILLING

- A. Backfill around sides and to top of pipe in accordance with Section 31 23 16 Excavation and Backfill.

- B. Maintain optimum moisture content of bedding material to attain required compaction density per Section 31 23 16 Excavation and Backfill.

3.8 FIELD QUALITY CONTROL

- A. Post Construction Television Inspection: Televise sewer pipeline immediately following completion of point repair and backfill.
- B. Request inspection prior to and immediately after placing bedding.
- C. Compaction Testing: In accordance with Section 31 23 16 Excavation and Backfill.
- D. When tests indicate Work does not meet specified requirements, remove work, replace, and retest.

3.9 PROTECTION OF FINISHED WORK

- A. Protect pipe and aggregate cover from damage or displacement until backfilling operation is in progress.

END OF SECTION

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FILE NAME: C:\Users\MOL102938\Documents\Mott MacDonald\507106621 - ALCOSAN Ohio River Tunnel Design - T&M\Project Files\7B - AS1\066A EARLY ACTION\01-General - 000-DM-101 LAST SAVED BY: LEN75416 PLOT DATE: 10/14/2024 11:23:45 AM

DRAWING LIST

SHEET No.	DRAWING No.	SHEET TITLE LINE 1	SHEET TITLE LINE 2
01	000-DM-100	COVER SHEET AND LOCATION MAPS	
02	000-DM-101	DRAWING LIST	
03	000-DM-102	GENERAL DEMOLITION NOTES	AND LEGEND
04	000-DM-103	AS1 OVERALL SITE PLAN ⚠	
05	AS1-UT-100	AS1 SEWER LINING PLAN	
06	AS1-UT-101	PWSA TAP-TERMINATION DETAILS	
07	AS1-DM-100	837 S. CANAL ST.	PWSA TAP-TERMINATION PLAN
08	AS1-DM-101	837 S. CANAL ST.	BUILDING DEMOLITION SITE PLAN
09	AS1-DM-102	837 S. CANAL ST. POST DEMOLITION	SITE RESTORATION AND GRADING
10	AS1-DM-103	837 S. CANAL ST.	SITE DETAILS
11	AS1-DM-104	837 S. CANAL ST.	SITE PHOTO REFERENCE MAP
12	AS1-DM-105	837 S. CANAL ST. EXISTING BUILDING	SITE PHOTOS
13	AS1-DM-200	853 S. CANAL ST.	PWSA TAP-TERMINATION PLAN
14	AS1-DM-201	853 S. CANAL ST.	BUILDING DEMOLITION SITE PLAN
15	AS1-DM-202	853 S. CANAL ST. POST DEMOLITION	SITE RESTORATION AND GRADING
16	AS1-DM-203	853 S. CANAL ST.	SITE DETAILS
17	AS1-DM-204	853 S. CANAL ST.	SITE PHOTO REFERENCE MAP
18	AS1-DM-205	853 S. CANAL ST. EXISTING BUILDING	SITE PHOTOS SHEET 1 OF 2
19	AS1-DM-206	853 S. CANAL ST. EXISTING BUILDING	SITE PHOTOS SHEET 2 OF 2
20	AS1-DM-300	876 PROGRESS ST.	PWSA TAP-TERMINATION PLAN
21	AS1-DM-301	876 PROGRESS ST.	BUILDING DEMOLITION SITE PLAN
22	AS1-DM-302	876 PROGRESS ST. POST DEMOLITION	SITE RESTORATION AND GRADING
23	AS1-DM-303	876 PROGRESS ST.	SITE DETAILS
24	AS1-DM-304	876 PROGRESS ST.	SITE PHOTO REFERENCE MAP
25	AS1-DM-305	876 PROGRESS ST. EXISTING BUILDING	SITE PHOTOS

Designed by:	REVISION			
JRL	REV No.	DATE	DESCRIPTION	APPV
	1	10-7-24	SHEET TITLE UPDATE	KMC
Drawn by:				
JMS				
Checked by:				
DS				

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Two Allegheny Center
Nova Tower 2, Suite 1301
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811

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FINAL DESIGN TICKET # 20242431402

REGISTERED
PROFESSIONAL

KATHY M. CHAVARA

ENGINEER

No. 008511-E

PENNSYLVANIA

alcosan

allegheny county sanitary authority

ARLETTA SCOTT WILLIAMS
EXECUTIVE DIRECTOR, ALCOSAN

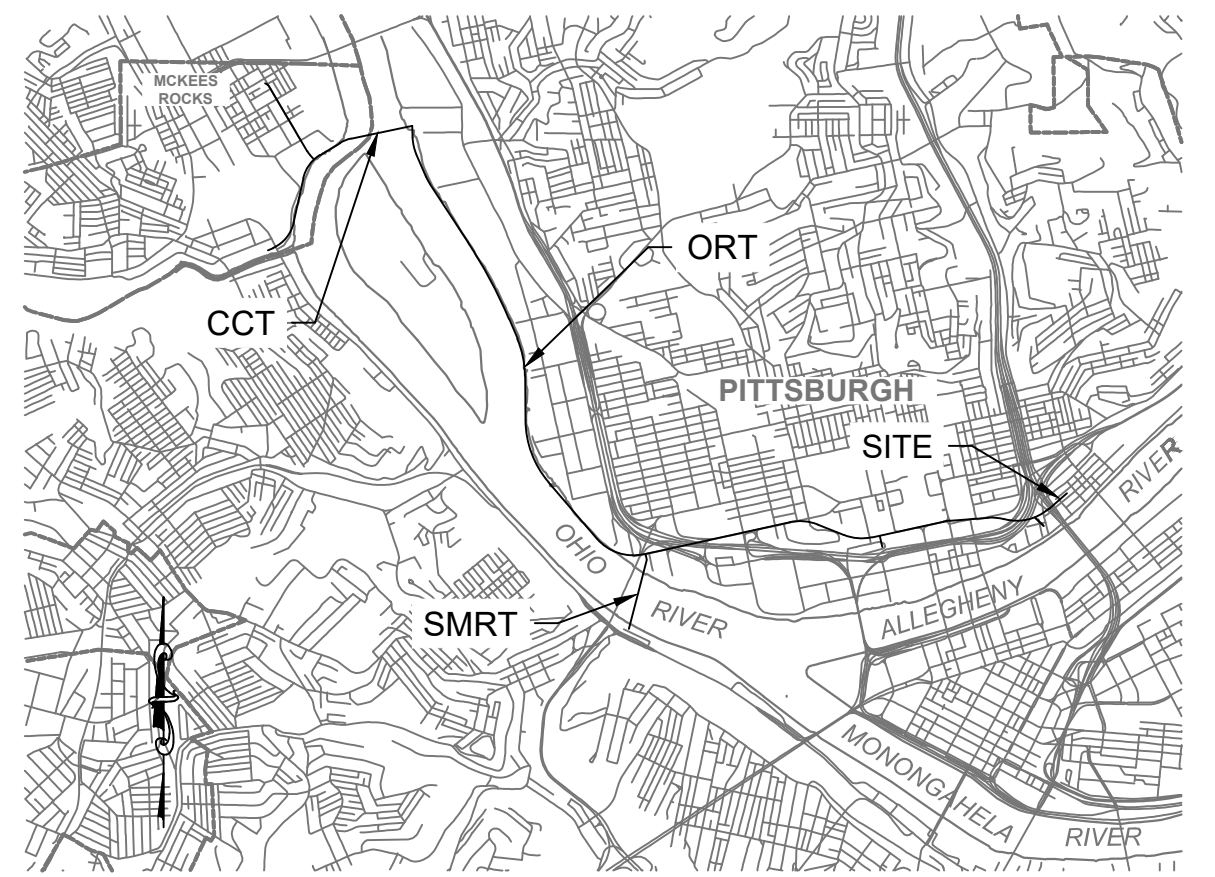
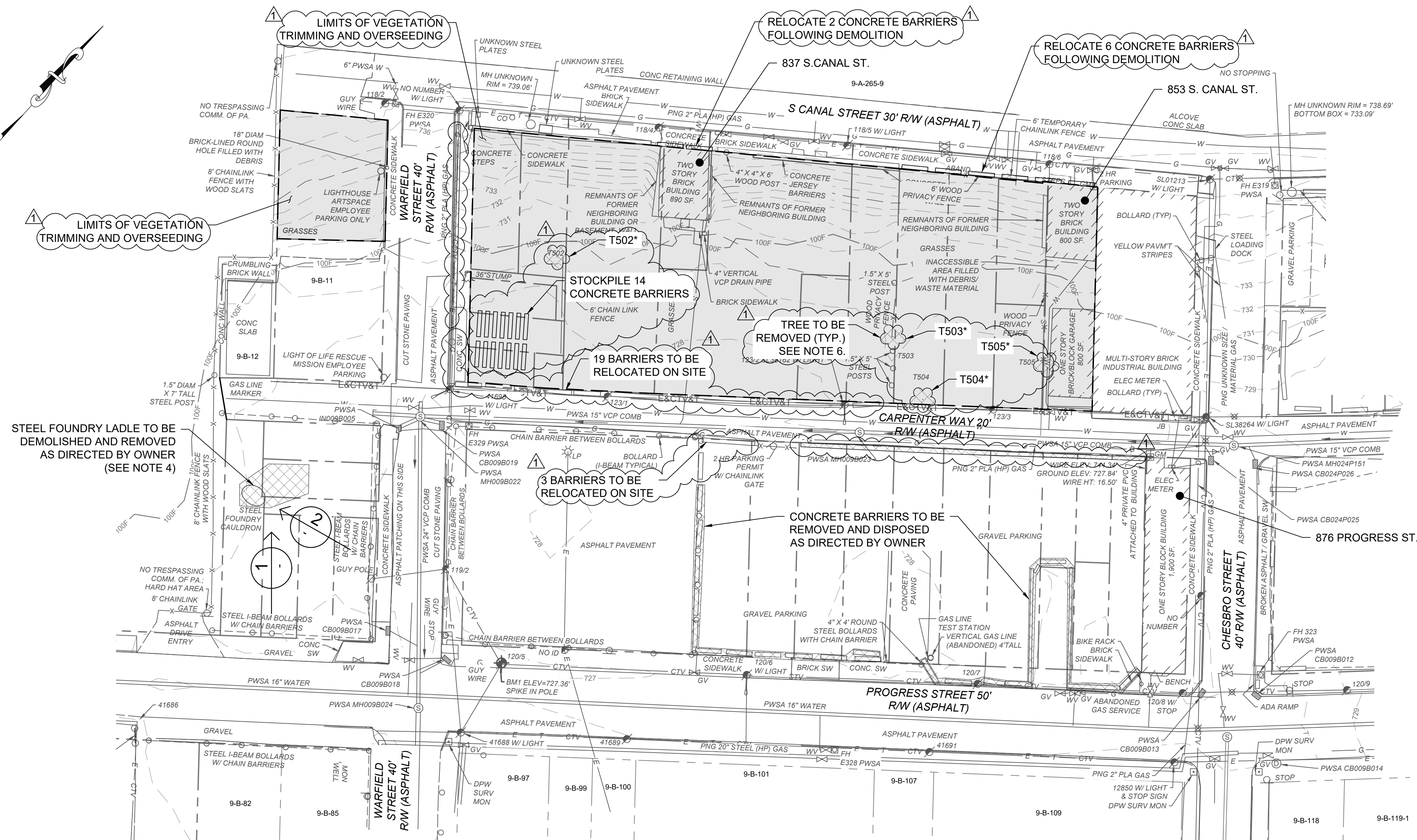
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ALLEGHENY COUNTY SANITARY AUTHORITY (ALCOSAN)
AS1 DEMOLITION
SITE DEMOLITION CONTRACT II

000-DM-101
DRAWING LIST

Contract:	1793
File:	000-DM-101.dwg
Date:	10/07/2024
Sheet:	02 OF 25



KEY MAP
SCALE 1" = 4000'

NOTES

1. EXISTING UTILITIES SHOWN ON THIS PLAN ARE BASED ON THE BEST INFORMATION AVAILABLE AT THE TIME OF DESIGN AND MAY NOT BE ACCURATE OR COMPLETE. CONTRACTOR SHALL NOTIFY OWNER IMMEDIATELY IF SIGNIFICANT DISCREPANCIES OR ADDITIONAL UTILITIES ARE FOUND THAT WILL IMPACT THE WORK.
2. EXISTING CONDITIONS PLAN IS BASED ON SITE SURVEY BY MONALOH BASIN ENGINEERS DATED 10/28/2022.
3. REFER TO SURVEY CONTROL MAP FOR NEAREST PRIMARY POINT ACS44.
4. STEEL FOUNDRY LADLE IS APPROXIMATELY 12' DIAMETER, AND 13' HEIGHT.
5. SEWER LINING, BUILDING DEMOLITION, AND UTILITY WORK NOT SHOWN FOR CLARITY. REFER TO AS1-DM-100 THROUGH AS1-DM-305.
6. TREES TO BE CUT FLUSH WITH GROUND LEVEL. ENSURE NO DISTURBANCE TO SURROUNDING SOIL OR CUTTING BELOW GRADE.

SEWER DATA

PWSA MH009B022	PWSA MH024P151	PWSA CB009B014	PWSA CB024P026
RIM=726.98	RIM=727.79	TOP=727.62	TOP=727.41
NW=720.78 15" VCP S	NW=717.84 15" VCP NE	BOT BOX=720.92	BOT BOX=732.41
NW=719.48 15" VCP SW	NW=717.64 15" VCP SW	(FULL OF WATER)	(FULL OF WATER)
NW=RECESSED NW			
NW=714.53 15" VCP NE	PWSA MH024P152	PWSA CB009B017	PWSA CB024P027
NW=719.58 15" VCP E	RIM=739.62	TOP=726.68	TOP=726.42
NW=711.48 24" VCP SE	NW=718.22 RECESSED NW	BOT BOX=719.98	BOT BOX=732.91
	NW=718.22 RECESSED SE	(50% FULL OF WATER)	(STENCH PLATE N/A)
PWSA MH009B023			
RIM = 728.01	PWSA CB009B018	PWSA CB024P028	
NW=716.21 15" VCP NE	TOP=726.57	TOP=738.10	
NW=716.01 15" VCP SW	BOT BOX = 720.07	BOT BOX=733.90	
	(50% FULL OF WATER)	(STENCH PLATE N/A)	
PWSA MH009B024			
RIM=726.46	PWSA CB009B019	PWSA CB024P029	
NW=712.56 24" VCP NW	TOP=726.56	TOP=738.08	
NW=712.56 24" VCP SE	NW=721.41 W	BOT BOX=732.88	
NO OTHER PIPES SEEN	18" OPENING?	(STENCH PLATE N/A)	
PWSA MH024P149	PWSA CB009B012	PWSA CB024P025	PWSA CB024P030
RIM=738.68	TOP=727.12	TOP=727.35	TOP=738.78
NW=720.28 18" VCP SW	BOT BOX=722.57	BOT BOX=722.80	BOT BOX=733.38
NW=720.28 18" VCP NW	(FULL OF WATER)	(FULL OF WATER)	(50% WATER FILLED)
NW=729.09 18" VCP NE			
NW=721.46 18" VCP E			
NW=720.28 18" VCP SE			

LEGEND

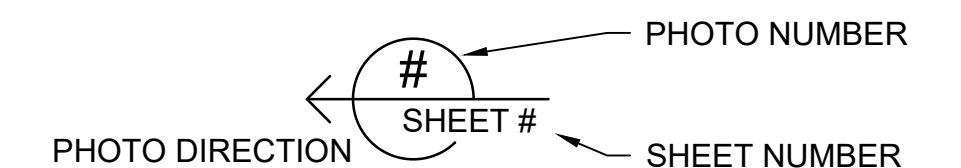
DENOTES LIMITS OF DEMOLITION AND
WASTE REMOVAL

PHOTO DIRECTION

PARCEL INFORMATION	
LOT & BLOCK	OWNER
ADJACENT PARCELS:	
9-B-12, 9-B-82 9-B-85, 9-B-97, 9-B-99, 9-B-100, 9-B-101, 9-B-107	BUNCHER COMPANY
9-B-11	LIGHT OF LIFE MINISTRIES INC
9-B-119-1	CARMODY, PAUL M
9-B-109, 9-B-118	WARHOLA GEORGE A & MARIA BIAMONTE (W)
9-A-265-9	CONRAIL (NORFOLK SOUTHERN RAILROAD)

TREE DEMO TABLE		
TREE NUMBER	TREE SPECIES	TREE DIAMETER (DBH - IN.)
TREE (T502)*	DECIDUOUS	24
TREE (T503)*	DECIDUOUS	8
TREE (T504)*	DECIDUOUS	15
TREE (T505)*	DECIDUOUS (TWIN)	8



PHOTO 1
NO SCALE -



PHOTO 2
NO SCALE -

Designed by:	REVISION			
JRL	REV No.	DATE	DESCRIPTION	APPV
Drawn by:	1	10-7-24	CONCRETE BARRIERS & VEGETATION TRIMMING	KMC
MJN				
Checked by:				
DLM				

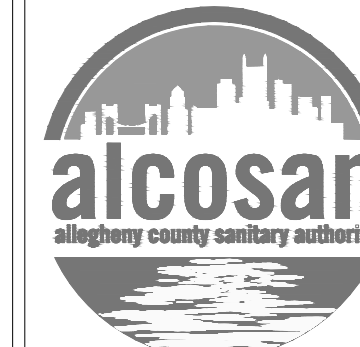


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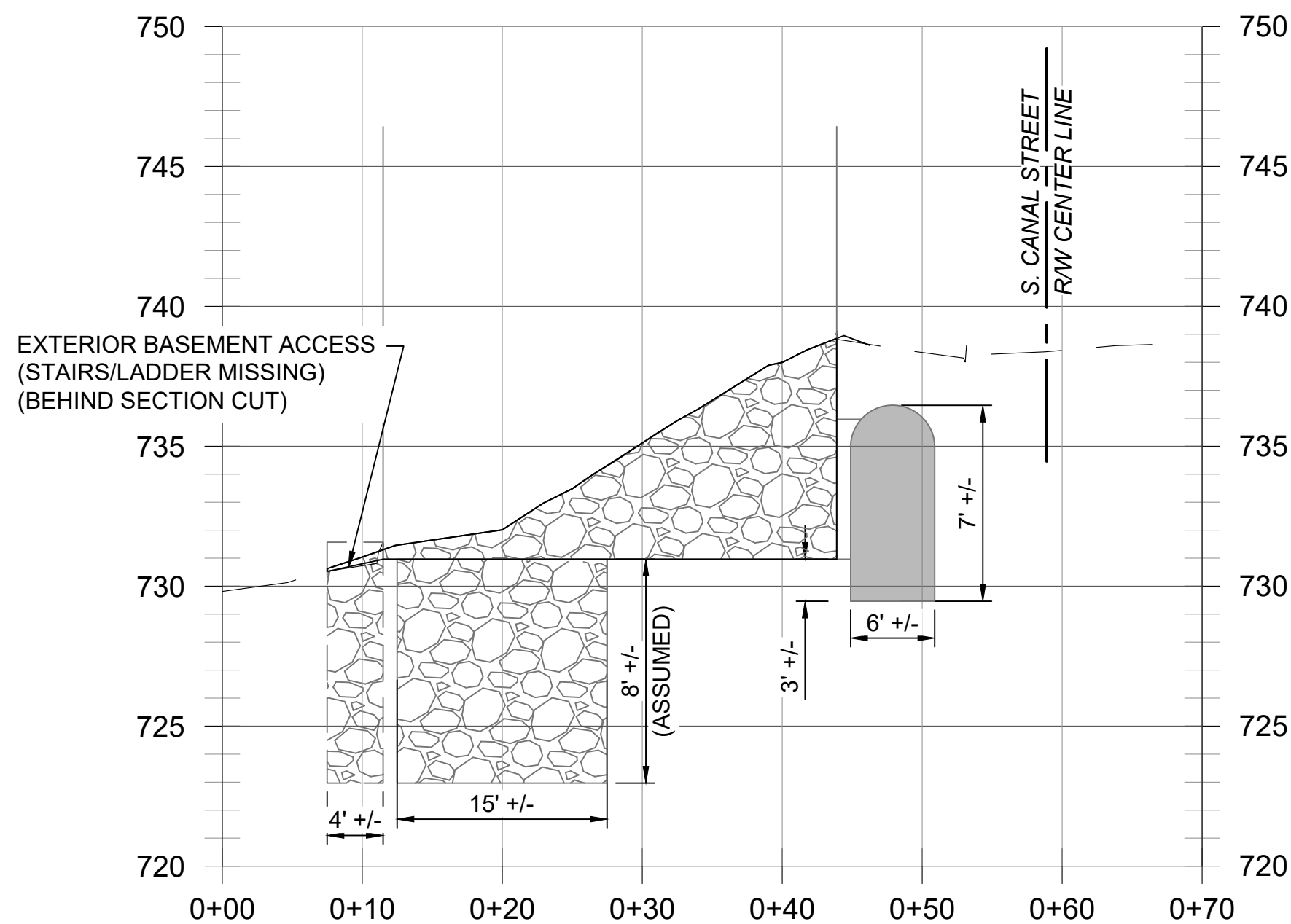
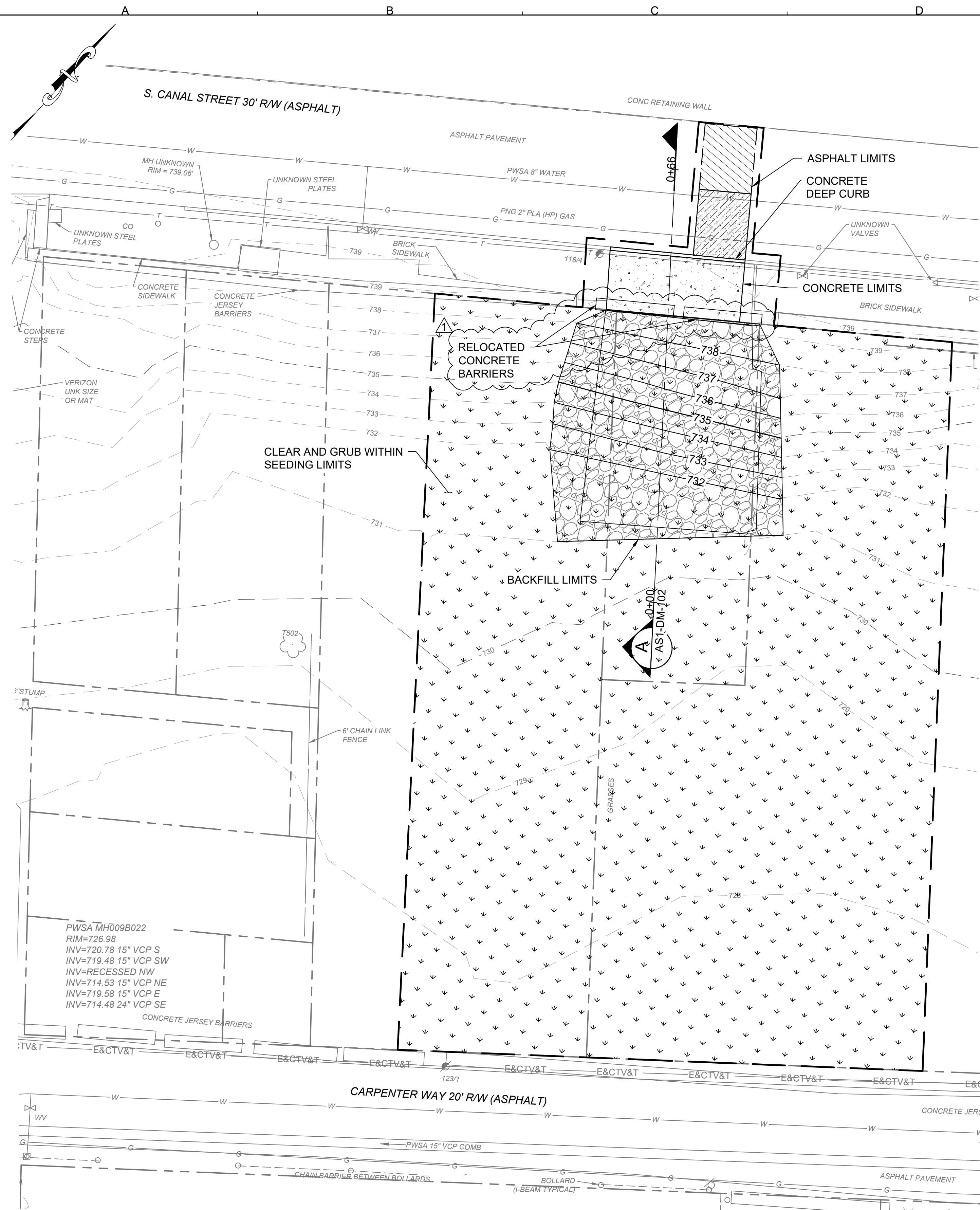
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AS1 DEMOLITION
SITE DEMOLITION CONTRACT II

000-DM-103
AS1 OVERALL SITE PLAN

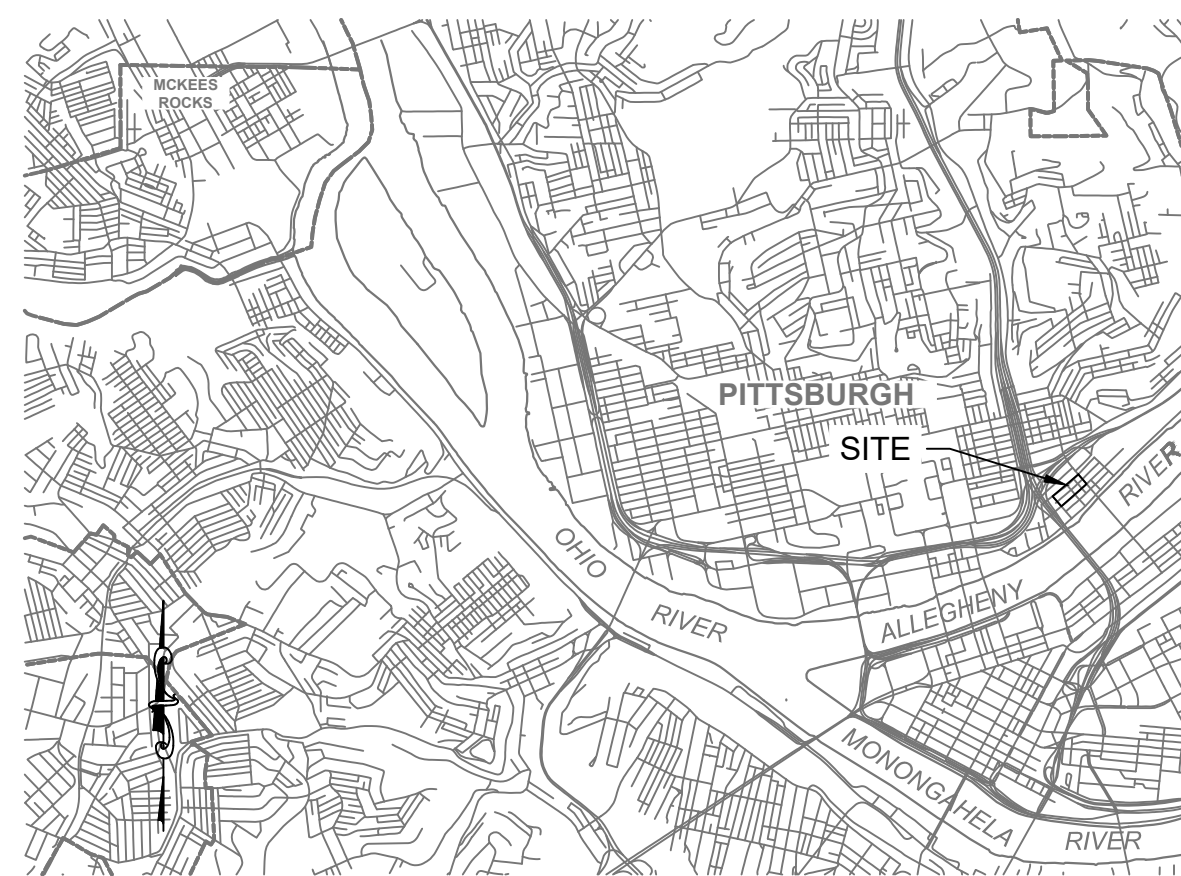
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File:	000-DM-103.dwg
Date:	10/07/2024
Sheet:	04 OF 25



SECTION


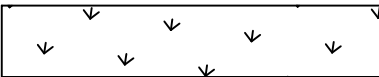

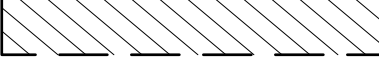
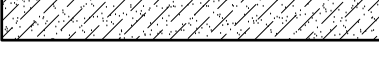
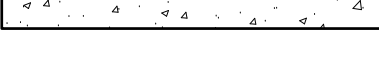

HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'

A
AS1-DM-102



KEY MAP
SCALE 1" = 4000'

LEGEND

- | | |
|---|---|
|  | DENOTES LIMITS OF CONTRACTOR ACCESS |
|  | LIMITS OF SEEDING |
|  | LIMITS OF AGGREGATE BACKFILL, INCLUDING TOPSOIL, SEEDING AND VEGETATIVE STABILIZATION. (SEE NOTE 1) |
|  | LIMITS OF MILL AND OVERLAY |
|  | LIMITS OF FULL DEPTH TRENCH RESTORATION |
|  | LIMITS OF CONCRETE SIDEWALK |
|  | FLOWABLE BACKFILL |

NOTES

1. BURIED BUILDING FOUNDATIONS TO BE CRACKED TO FACILITATE DRAINAGE PRIOR TO BACKFILLING. CONTRACTOR TO SECURE OWNERS APPROVAL OF CRACKED FOUNDATION PRIOR TO BACKFILLING WITH TYPE 2A AGGREGATE.
2. FOLLOWING BACKFILL, TOP WITH 4" OF SEEDED TOPSOIL, EROSION CONTROL BLANKET AND COVER WITH STRAW TO MEET FINAL PROPOSED GRADES, AND PLACE EROSION CONTROL BLANKET. SEE DETAIL 1 AND 5, SHEET AS1-DM-103.
3. THE CONTRACTOR IS TO MAINTAIN MINIMUM SAFETY CLEARANCES FROM ACTIVE OVERHEAD LINES AS NOTED IN OSHA 1926.1408 DURING DEMOLITION ACTIVITIES.
4. 4" TOPSOIL, SEED, AND STRAW ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES.



SCALE IN FEET
SCALE 1" = 10'

Designed by:	REVISION			
JRL	REV No.	DATE	DESCRIPTION	APPV
	1	10-7-24	ADDED RELOCATED CONCRETE BARRIERS	KMC
Drawn by:				
MJN				
Checked by:				
DLM				

M

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Pittsburgh, PA 15212
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EXECUTIVE DIRECTOR, ALCOSAN

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PITTSBURGH, PA 15233
(412) 766 - 4810

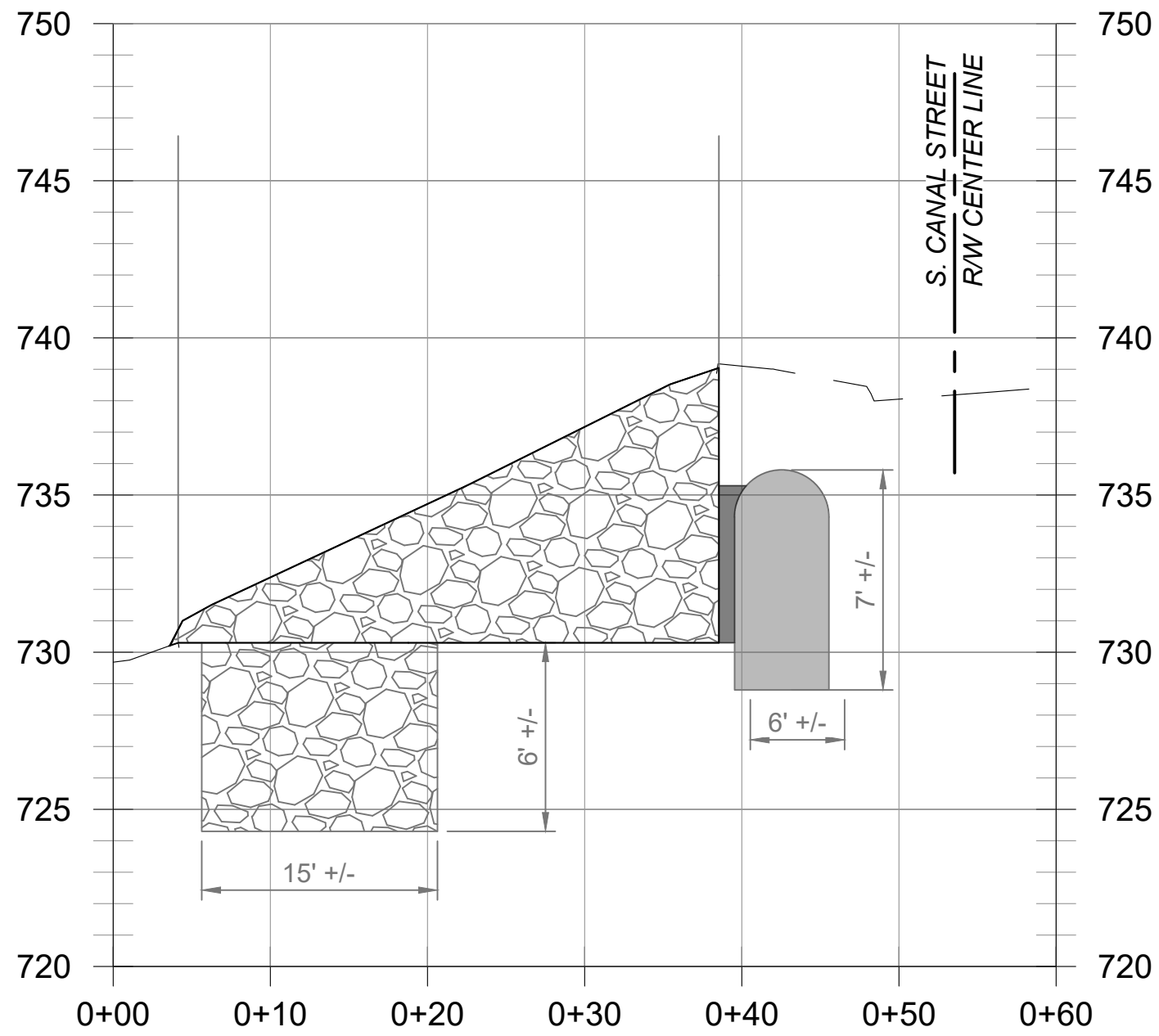
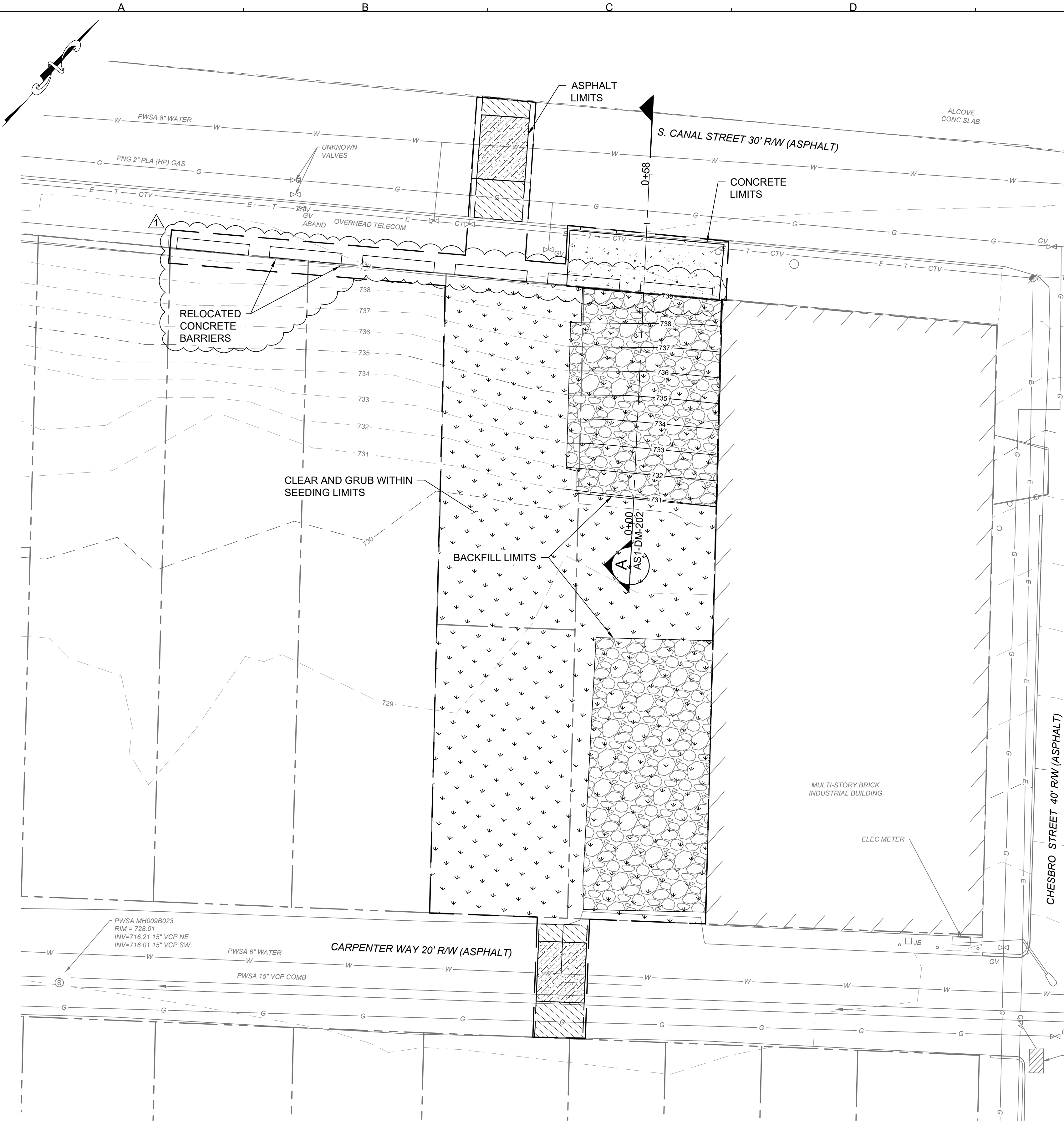
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AS1 DEMOLITION
SITE DEMOLITION CONTRACT II

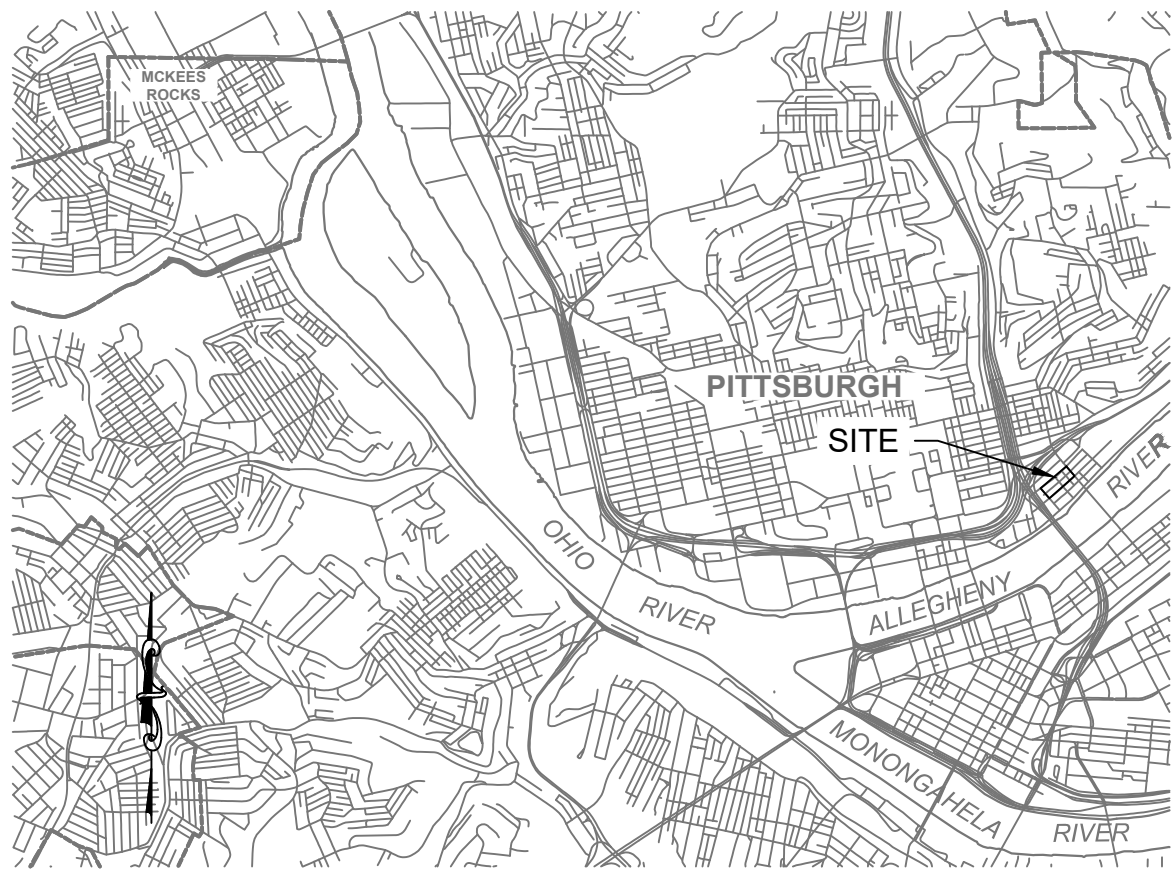
AS1-DM-102
837 S. CANAL ST. POST DEMOLITION
SITE RESTORATION AND GRADING

Contract:	1793
File:	AS1-DM-102.dwg
Date:	10/07/2024
Sheet:	09 OF 25

FILE NAME: C:\Users\MOL102938\Documents\Mott MacDonald\507105621 - ALCOSAN Ohio River Tunnel Design - T&M\Project Files\TB - AS1-006A EARLY ACTION\02-Civil - AS1-DM-202 LAST SAVED BY: MOL102938 PLOT DATE: 10/14/2024 11:24:17 AM



SECTION
HORIZONTAL SCALE: 1" = 10'
VERTICAL SCALE: 1" = 5'



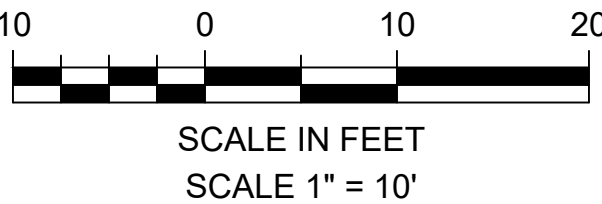
KEY MAP
SCALE 1" = 4000'

LEGEND


- DENOTES LIMITS OF CONTRACTOR ACCESS
- LIMITS OF SEEDING
- LIMITS OF AGGREGATE BACKFILL, INCLUDING TOPSOIL, SEEDING AND VEGETATIVE STABILIZATION. (SEE NOTE 1)
- LIMITS OF CONCRETE SIDEWALK
- FLOWABLE BACKFILL
- LIMITS OF MILL AND OVERLAY
- LIMITS OF FULL DEPTH TRENCH RESTORATION

NOTES

- BREAK CONCRETE FLOOR SLABS AND FOUNDATIONS TO FACILITATE DRAINAGE PRIOR TO BACKFILLING. OBTAIN CM APPROVAL PRIOR TO PLACING BACKFILL.
- FOLLOWING BACKFILL, TOP WITH 4" OF SEEDED TOPSOIL, COVER WITH STRAW TO MEET FINAL PROPOSED GRADES, AND PLACE EROSION CONTROL BLANKET. SEE DETAIL 1 AND 5, SHEET AS1-DM-203.
- THE CONTRACTOR IS TO MAINTAIN MINIMUM SAFETY CLEARANCES FROM ACTIVE OVERHEAD LINES AS NOTED IN OSHA 1926.1408 DURING RESTORATION ACTIVITIES.
- 4" TOPSOIL, SEED, AND STRAW ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES.
- AREAS WHERE CONCRETE SIDEWALKS OR PAD HAVE BEEN DEMOLISHED PROVIDE TOPSOIL TO GRADE PRIOR TO SEEDING AND STRAWING.



Designed by:	REVISION			
	REV No.	DATE	DESCRIPTION	APPV
JRL	1	10-7-24	ADDED RELOCATED CONCRETE BARRIERS	KMC
Drawn by:				
MJN				
Checked by:				
DLM				



**MOTT
MACDONALD**

Two Allegheny Center
Nova Tower 2, Suite 1301
Pittsburgh, PA 15212
(412) 497 - 2900



811

Dial 8-1-1 or 1-800-242-1776 not less than 3 business days nor more than 10 business days prior to the start of excavation.

Pennsylvania One Call System Serial Number
FINAL DESIGN TICKET # 20242431402



KATHY M. CHAVARA
REGISTERED PROFESSIONAL ENGINEER
No. 144811-E
PENNSYLVANIA



alcosan
allegheny county sanitary authority

ARLETTA SCOTT WILLIAMS
EXECUTIVE DIRECTOR, ALCOSAN

3300 PREBLE AVE.
PITTSBURGH, PA 15233
(412) 766 - 4810

www.alcosan.org

ALLEGHENY COUNTY SANITARY AUTHORITY (ALCOSAN)
AS1 DEMOLITION
SITE DEMOLITION CONTRACT II

AS1-DM-202
853 S. CANAL ST. POST DEMOLITION
SITE RESTORATION AND GRADING

Contract:	1793
File:	AS1-DM-202.dwg
Date:	10/07/2024
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