

EXHIBIT “A”

**COMMUNITY COST-SHARE AGREEMENT  
BY AND BETWEEN  
THE NORTHEAST OHIO REGIONAL SEWER DISTRICT  
AND  
CITY OF BRECKSVILLE**

This Agreement is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2023, by and between the Northeast Ohio Regional Sewer District (District) acting pursuant to Resolution No. 114-13, adopted by the Board of Trustees of the District on May 16, 2013 (Exhibit “A”), and City of Brecksville acting pursuant to Ordinance/Resolution No. \_\_\_\_\_, adopted on \_\_\_\_\_, 20\_\_ (Exhibit “B”).

**Recitals**

WHEREAS, the District, as a component of implementing a regional stormwater management program, manages a financial account termed the “*Community Cost-Share Account*” that is for the aggregation and dissemination of funds derived from revenues collected from the Stormwater Fee; and

WHEREAS, the purpose of the Community Cost-Share Account is to provide funding to assist the City with District-approved projects through the Community Cost-Share Program; and

WHEREAS, the Community Cost-Share Program funds are used for construction, operation, and maintenance of the Local Stormwater System or Regional Stormwater System, including administrative costs directly associated with such projects as well as costs related to repair or upgrade; and

WHEREAS, the District supports the Community Cost-Share Chippewa Road Improvement project (the “Project”) as a Community Cost-Share project proposed by the City; and

NOW THEREFORE, in consideration of the foregoing, the payment and the mutual promises contained in this Agreement, the parties agree as follows:

**Article 1.0    City Obligations**

- 1.1 The City agrees to perform as follows:
  - 1.1.1 Complete work as detailed in the District approved Community Cost-Share application. (Exhibit “C”)
  - 1.1.2 Complete and submit Progress Reports when submitting Request for Payment as needed, or within 30 days of close of the Project, per Section 5.0 of the *Community Cost-Share Program Policy*.

- 1.1.3 Notify the City's Watershed Team Leader at least 7 business days prior to the start of the Project.
  - 1.1.4 Meet with District staff when requested to review the Project status.
  - 1.1.5 Obtain all necessary legal agreements with affected property owners to perform the Project and to bind any successor in title to maintain compliance as specified in this Agreement between the District and City for the Project.
  - 1.1.6 Comply with all applicable local, state and federal requirements. This may include, but is not limited to, U.S. Army Corp of Engineers Section 404, Ohio EPA Section 401 water quality certification, and Ohio Department of Natural Resources Dam Safety Laws.
  - 1.1.7 If the City fails to maintain the Project in accordance with this Agreement, the City shall be liable for the full amount of any Community Cost-Share Program funds paid for the Project. Such amount shall be offset against the City Community Cost-Share Account.
  - 1.1.8 Submit requests for approval to modify the budget, deadline, deliverables, or other components of the Project to the City's Watershed Team Leader at least 30 business days prior to the desired date of execution of the modification.
  - 1.1.9 Acknowledge the District on any public advertisement or outreach efforts including all publications and signage related to the Project which shall include the following disclaimer:

*This project was funded in part or totally through the Northeast Ohio Regional Sewer District (NEORS) Community Cost-Share Program in coordination with City, under the provisions of the NEORS Regional Stormwater Management Program. The contents and views, including any opinions, findings, or conclusions or recommendations, contained in this publication are those of the authors and have not been subject to NEORS review and may not necessarily reflect the views of NEORS, and no official endorsement should be inferred.*
  - 1.1.10 Provide the District the opportunity to have design approval for any signage or public education and outreach efforts related to the Project.
  - 1.1.11 Permit the District to photograph the Project and to incorporate the Project into the District's overall public education and outreach efforts for stormwater management.
- 1.2 Failure to meet any of the requirements listed in Article 1.1 may result in termination of this Agreement and reimbursement of disbursed funds to the District.

**Article 2.0**    **District’s Obligations**

- 2.1    The District agrees to perform as follows:
  - 2.1.1    Allocate \$300,000.00 to the City for the Project from the City’s Community Cost-Share Account.
  - 2.1.2    Provide reimbursement of funds up to \$300,000.00 to the City within 60 days of receipt of a complete Request for Payment from the City, detailing costs related to the Project.
  - 2.1.3    Timely review and approval or disapproval of requests to modify the budget, deadline, deliverables, or other components of the Project.
  - 2.1.4    Acknowledge the City in presentations or publications related to the Project.

**Article 3.0**    **Dispute Resolution**

- 3.1    The Parties shall continue the performance of their obligations under this Agreement notwithstanding the existence of a dispute.
- 3.2    The Parties shall first try to resolve the dispute at the level of the designated representatives as follows:

<b>District Representative</b>	<b>City Representative</b>
Watershed Team Leader	City Engineer

If the Parties are unable to resolve the dispute at that level within ten (10) working days, the Parties shall escalate the dispute to the following level to resolve the dispute:

<b>District Representative</b>	<b>City Representative</b>
Director of Watershed Programs	Mayor

- 3.3    If the Parties remain unable to resolve the dispute within an additional ten (10) working days, the Parties shall proceed to mediation upon request by either party. The mediator shall review all documents and written statements, in order to accurately and effectively resolve the dispute. The mediator shall call a meeting between the Parties within ten (10) working days after mediator appointment, which meeting shall be attended by at least the respective representatives listed in paragraph 3.02 above. The Parties shall attempt in good faith to resolve the dispute. The Parties agree to follow the Uniform Mediation Act,

Chapter 2710 of the Ohio Revised Code. The Parties shall share the cost of the mediator equally.

- 3.4 Such mediation shall be non-binding between the Parties and, to the extent permitted by law, shall be kept confidential. If the dispute is resolved and settled through the mediation process, the decision will be implemented by a written agreement signed by both Parties. If the dispute is unable to be resolved through mediation, the Parties agree to submit the dispute to the appropriate jurisdiction as per Article 4, Remedies, below.

**Article 4 Remedies**

- 4.1 The Parties agree that, after exhausting the dispute resolution process outlined above, all claims, counter-claims, disputes and other matters in question between the Parties arising out of or relating to this Agreement, or the breach thereof, will be decided at law. This Agreement shall be governed by and interpreted according to the laws of the State of Ohio.

**Article 5 Counterpart Signatures**

- 5.1 This Agreement may be executed in counterparts, each of which shall be deemed to be an original, but which counterparts when taken together shall constitute one Agreement.

**Article 6 Governing Law**

- 6.1 The terms and provisions of this Agreement shall be construed under and governed by the laws of Ohio (to which all Parties hereto consent to venue and jurisdiction).

**Article 7 Disclaimer of Joint Venture**

- 7.1 This Agreement is not intended to create a joint venture, partnership or agency relationship between the Parties, and such joint venture, partnership, or agency relationship is specifically hereby disclaimed.

**Article 8 Authority to Execute**

- 8.1 Each person executing this Agreement represents and warrants that it is duly authorized to execute this Agreement by the party on whose behalf it is so executing.

**Article 9 Exhibits**

The following exhibits are attached hereto and incorporated herein:

- Exhibit "A" – District Resolution
- Exhibit "B" – City Ordinance/Resolution
- Exhibit "C" – District-Approved Community Cost Share Application

The parties have executed this Agreement on the day and year first above written.

**NORTHEAST OHIO REGIONAL SEWER DISTRICT**

BY: \_\_\_\_\_  
Kyle Dreyfuss-Wells  
Chief Executive Officer

AND

BY: \_\_\_\_\_  
Darnell Brown, President  
Board of Trustees

**CITY OF BRECKSVILLE**

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

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

The Legal Form and Correctness of this Instrument is hereby Approved:

**CITY OF BRECKSVILLE**

\_\_\_\_\_  
Assistant/Director of Law

This Instrument Prepared By:

\_\_\_\_\_  
Katarina K. Waag  
Assistant General Counsel  
Northeast Ohio Regional Sewer District

Each party agrees that this Agreement may be executed and distributed for signatures via email, and that the emailed signatures affixed by both parties to this Agreement shall have the same legal effect as if such signatures were in their originally written format.

***[FOR NEORS D USE]***

**AGREEMENT NO.**

NORTHEAST OHIO REGIONAL SEWER  
DISTRICT

WITH

CITY OF BRECKSVILLE

FOR

COMMUNITY COST-SHARE PROJECT:  
CHIPPEWA ROAD IMPROVEMENT

---

Total Approximate Cost:           \$300,000.00

---

The legal form and correctness of the within  
instrument are hereby approved.

---

ERIC J. LUCKAGE  
CHIEF LEGAL OFFICER

---

Date

**CERTIFICATION**

It is hereby certified that the amount required to  
meet the contract, agreement, obligation, payment  
or expenditure, for the above, has been lawfully  
appropriated or authorized or directed for such  
purpose and is in the Treasury or in process of  
collection to the credit of the fund free from any  
obligation or certification now outstanding.

---

KENNETH J. DUPLAY  
CHIEF FINANCIAL OFFICER

---

Date

**Budget Center 8100**

# EXHIBIT A

NORTHEAST OHIO REGIONAL SEWER DISTRICT  
RESOLUTION NO. 114-13

-----  
Authorizing the Executive Director to enter into Regional Stormwater Management Program Community Cost-Share Program Agreements with Member Communities.  
-----

WHEREAS, the Code of Regulations of the Northeast Ohio Regional Sewer District, Title V – Stormwater Management Code Chapter 9 outlines the Community Cost-Share Program developed to provide funds to District Member Communities for construction, operation and maintenance activities of community-specific stormwater management projects; and

WHEREAS, under the Community Cost-Share Program, 25% of the annual collected stormwater revenue from each Member Community will be held by the District in a Community Cost-Share account, whereby Communities, with review and approval by the District, through specific applications outlining the community-specific stormwater work to be performed can access reimbursement of their funds; and

WHEREAS, the District is seeking authority to enter into Regional Stormwater Management Program Community Cost-Share Program Agreements with Member Communities for the purpose of detailing and memorializing responsibilities of the District and Member Communities under specific applications to the Community Cost-Share Program;

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF TRUSTEES OF THE NORTHEAST OHIO REGIONAL SEWER DISTRICT:

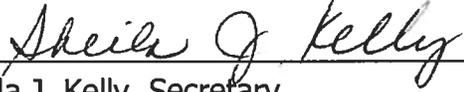
Section 1. That this Board finds that for the reasons stated in the preamble hereof it is in the best interests of the District to enter into Regional Stormwater Management Program Cost-Share Program Agreements with Member Communities to memorialize responsibilities of the District and Member Communities under specific applications to the Community Cost-Share Program.

Section 2. That this Board hereby authorizes the Executive Director to enter into Regional Stormwater Management Program Cost-Share Agreements with Member Communities to memorialize responsibilities of the District and Member Communities under specific applications to the Community Cost-Share Program under such terms and conditions that are satisfactory to the Director of Law and in the best interests of the District.

Section 3. That this Board authorizes the Executive Director to execute all documents and do all things necessary to effect the terms and conditions of the Stormwater Management Program Direct Billing Agreements with Member Communities.

Section 4. That this Board declares that all formal actions of the Board concerning and relating to the adoption of this resolution and that all deliberations of the Board and any of its committees that resulted in said formal action were conducted in meetings open to the public and in compliance with all legal requirements, including Section 121.22 of the Ohio Revised Code.

On motion of Mayor Starr seconded by Mr. O'Malley, the foregoing resolution was unanimously adopted on May 16, 2013.

  
\_\_\_\_\_  
Sheila J. Kelly, Secretary  
Board of Trustees  
Northeast Ohio Regional Sewer District

# EXHIBIT B

(Insert Member Community  
Ordinance/Resolution)

# EXHIBIT C



## Community Cost-Share Program APPLICATION

### Member Community Information

Community: City of Brecksville

Primary Project Contact: Gerald M. Wise, P.E.  
(Name & Title) City Engineer

Mailing Address: 7979 Hub Parkway  
Valley View, OH 44125

Phone Number: (216) 642-1130

Email: gwise@dbohning.com

### Project Information

Project Title: Chippewa Road Improvement

Address or Location of Project: Chippewa Rd. (b/w Weise & Riverview)  
Brecksville, OH 44141

Project Start Date: 5/2/2022

Project End Date: 10/28/2022

Community Cost-Share Fund Request: 300,000

Submission Date: 4/5/2022



## **Project Narrative**

### **1) Project Summary (1,000 word maximum)**

Describe the Project and include the following information, as applicable:

- Describe the Project and deliverables; provide a map if applicable
- Submit a deliverable worksheet listing tasks and deliverables with start dates and end dates for the significant benchmarks.
- List permitting requirements necessary to initiate and complete project and how the requirements will be met.

The project entails installing approximately 5,500 feet of 8" diameter sanitary sewer as well as 5,800 feet of storm sewer varying diameters, manholes, connections and all other work necessary to install the sewer. The sewer mains will provide or replace house connection for all properties along the corridor of the project, will eliminate 75 septic systems and also eliminate the need for an existing pump station at the end of Calvin Drive.

Currently, there are many failing septic systems along Chippewa Road and Calvin Drive that are the source of illicit discharges into nearby streams that are tributary to the Cuyahoga River. The City decided that installing sanitary sewers and not requiring the home owners to upgrade/replace their septic systems was in the best interest of the home owners, the city, and the environment.

The existing storm sewer on Chippewa Road and Calvin Drive have multiple sections in disrepair and is undersized per current standards, originally installed in the early 1930s. The proposed project will install new storm sewer conduit appropriately sized to convey drainage per current standards, alleviating the risk of flooding.

The Cleveland Metroparks has a future project which will continue the storm conduit at the downstream end of this project and outlet it on park property, creating expanded wetlands. Attached is the most current draft plans for the future project.



**2) Ability to Provide Long Term Maintenance (500 word maximum)**

Describe the plans for long-term maintenance, addressing the following question:

- Who is responsible to provide on-going maintenance for the project and how will maintenance be ensured?
- Provide documentation of scheduled maintenance and operation for completed stormwater project(s).

All existing and proposed improvements are within City of Brecksville right-of-way or easements . All maintenance for the existing and proposed improvements are the responsibility of the City of Brecksville. No maintenance above and beyond other existing sewers is anticipated. On behalf of the City, inspection of the improvements will be provided by the City and follow up inspections will occur throughout the project maintenance bond period. After that point, the City will inspect on an annual basis.

Additionally, the City has a partnership with Cuyahoga County Department of Public Works for sewer maintenance. The County prepares and annual report of their services which is submitted to NEORSR on a yearly basis as a requirement of the discharge agreement with the City of Brecksville and NEORSR. If additional copies of this report outlining maintenance is required, please let me know and I'll submit the most current copy.



**3) Visibility and Public Outreach: (500 word maximum)**

Public outreach is required if appropriate for your project.

- What audiences will be exposed to this Project (neighbors, students, community groups, general public)?

The proposed project is an assessment project. Required public meetings have already taken place with residents along the project corridor. The City is required to provide certified notification to all residents who will be receiving a benefit from the proposed sanitary sewer.

In order to perform the proposed work additional easements will need to be obtained from the Glen Valley home owners association (pump station work). Conversation with representatives from the home owners association have already taken place and will continue.

The project has been and will continue to be discussed in Public meetings of the City. The City has prepared articles in the City Bulletin that have and will include details of this project and other project information will be posted on the City web site. All public meetings are covered by Cleveland.com / Plain Dealer, The Sun Courier, Gazette Newspaper will notified.



4) **Budget Summary** (500 words maximum)

The Budget Summary and Project Budget (*see page 3*) represent the Community Cost-Share Project components exclusively. Include details on the provider of all services such as design, engineering, construction management and materials including specific material cost, equipment, and hourly rate.

If an engineer's estimate is included with the application, indicate which line items are included in the Community Cost-Share Project application.

The City would like to request funding to be used toward the installation of storm sewer improvements. The City's preliminary estimate projects the installation of storm sewer and associated improvements (i.e. driveway apron replacement, restoration, etc.) to be \$2,257,825.00. The City request community cost share funding to cover 15% of these cost and/or a maximum of \$300,000.00. Final costing will be based on actual bid cost for various items. For the purpose of the preliminary estimate to establish a cost breakdown, a percentage was assumed.



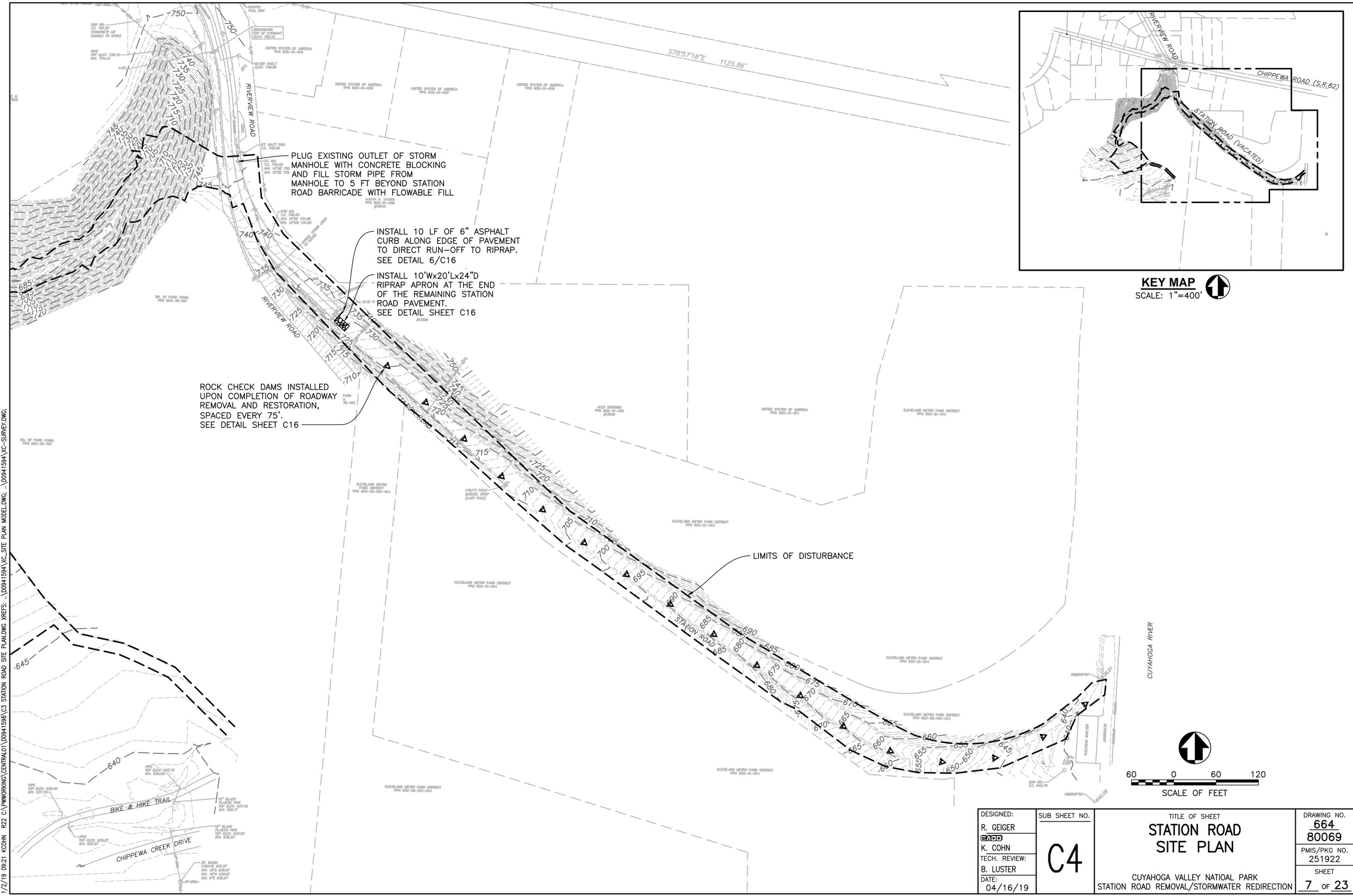
**Vendor Registration**

Prior to submission, ensure that the Member Community is a registered vendor with the District. Vendor Registration can be done by accessing [http://www.neorsd.org/isupplier\\_homepage.php](http://www.neorsd.org/isupplier_homepage.php) and completing the New Vendor Registration. If unsure of the Member Community vendor status, by initiating the New Vendor Registration a message of active registration will appear if currently registered as a vendor.

**Project Budget**

Project Expenses	Community Cost-Share Expense	Line Item Description
Professional Services		
Personnel <i>(Member Community staff only)</i>		
Subcontract		
Equipment		
Materials		
Other		
<b>TOTAL</b>	\$ 300,000	approx 15% of all storm sewer costs

1/2/19 09:21 KCOHN R22 C:\PWORKING\CENTRAL\01\0941594\C3 STATION ROAD SITE PLAN.DWG XREFS: ..\0941594\XC SITE PLAN MODEL.DWG; ..\0941594\XC SURVEY.DWG;  
 C:\working\central\01\0941594\C3 Station Road Site Plan.dwg, Plot: 4/19/2019 2:16:43 PM, GPETERS



PLUG EXISTING OUTLET OF STORM MANHOLE WITH CONCRETE BLOCKING AND FILL STORM PIPE FROM MANHOLE TO 5 FT BEYOND STATION ROAD BARRICADE WITH FLOWABLE FILL

INSTALL 10 LF OF 6" ASPHALT CURB ALONG EDGE OF PAVEMENT TO DIRECT RUN-OFF TO RIPRAP. SEE DETAIL 6/C16

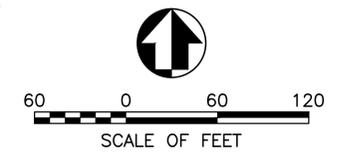
INSTALL 10'x20'Lx24"D RIPRAP APRON AT THE END OF THE REMAINING STATION ROAD PAVEMENT. SEE DETAIL SHEET C16

ROCK CHECK DAMS INSTALLED UPON COMPLETION OF ROADWAY REMOVAL AND RESTORATION, SPACED EVERY 75'. SEE DETAIL SHEET C16

LIMITS OF DISTURBANCE



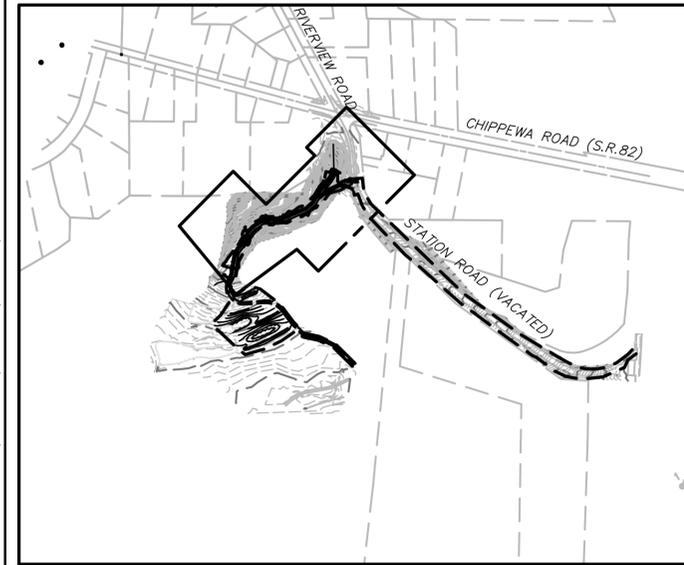
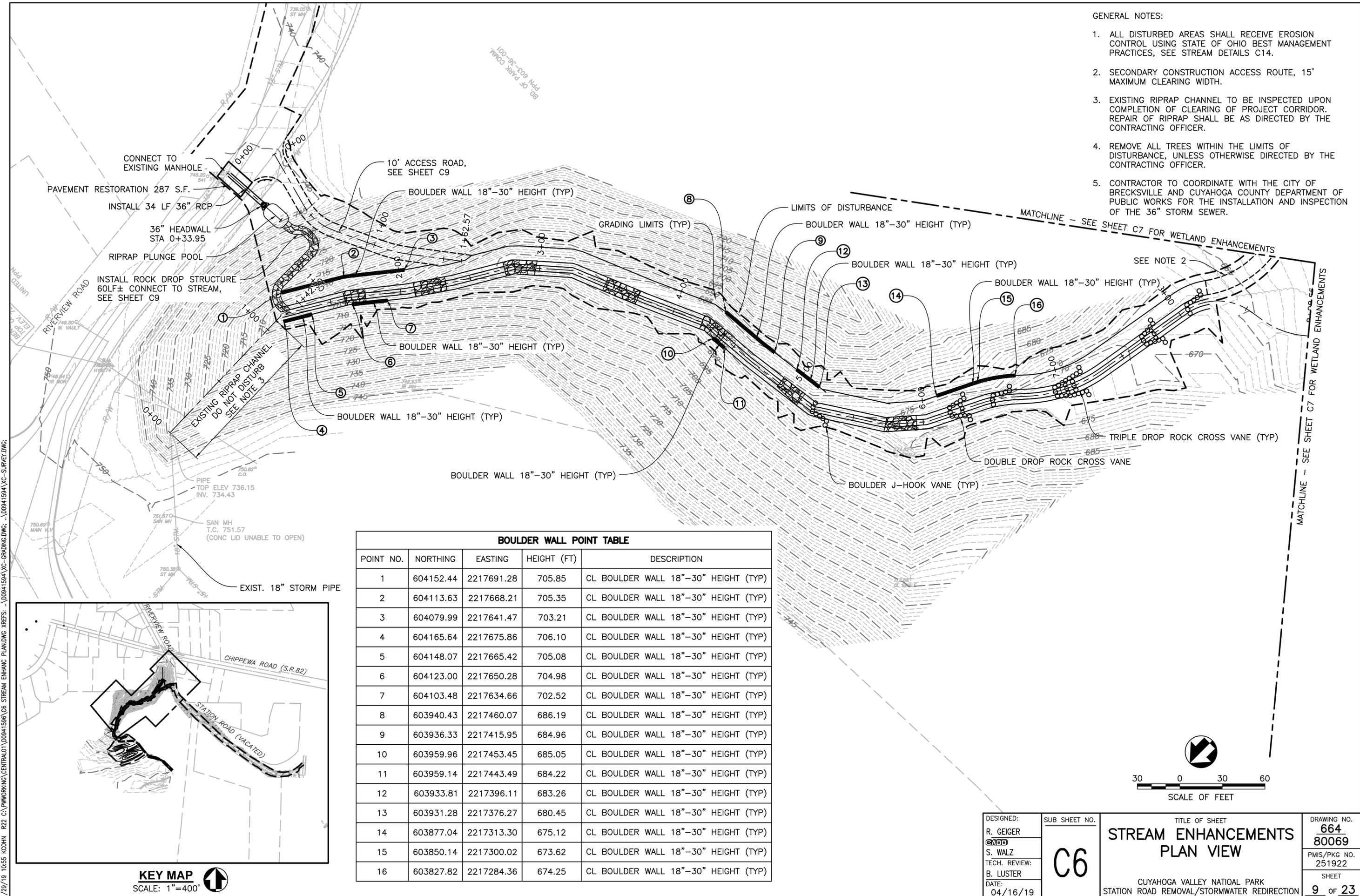
**KEY MAP**  
 SCALE: 1"=400'



DESIGNED: R. GEIGER	SUB SHEET NO. <b>C4</b>	TITLE OF SHEET <b>STATION ROAD SITE PLAN</b>	DRAWING NO. <b>664 80069</b>
TECH. REVIEW: K. COHN			PMIS/PKG NO. 251922
DATE: 04/16/19			SHEET <b>7 of 23</b>
STATION ROAD REMOVAL/STORMWATER REDIRECTION			

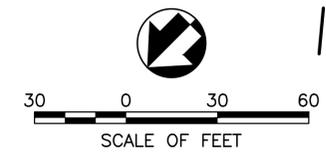
GENERAL NOTES:

1. ALL DISTURBED AREAS SHALL RECEIVE EROSION CONTROL USING STATE OF OHIO BEST MANAGEMENT PRACTICES, SEE STREAM DETAILS C14.
2. SECONDARY CONSTRUCTION ACCESS ROUTE, 15' MAXIMUM CLEARING WIDTH.
3. EXISTING RIPRAP CHANNEL TO BE INSPECTED UPON COMPLETION OF CLEARING OF PROJECT CORRIDOR. REPAIR OF RIPRAP SHALL BE AS DIRECTED BY THE CONTRACTING OFFICER.
4. REMOVE ALL TREES WITHIN THE LIMITS OF DISTURBANCE, UNLESS OTHERWISE DIRECTED BY THE CONTRACTING OFFICER.
5. CONTRACTOR TO COORDINATE WITH THE CITY OF BRECKSVILLE AND CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS FOR THE INSTALLATION AND INSPECTION OF THE 36" STORM SEWER.



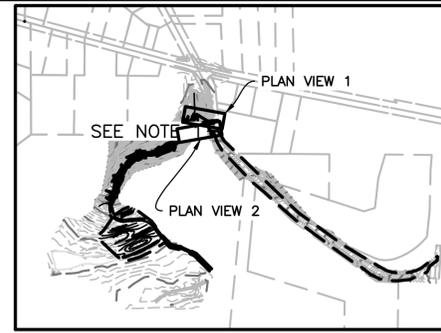
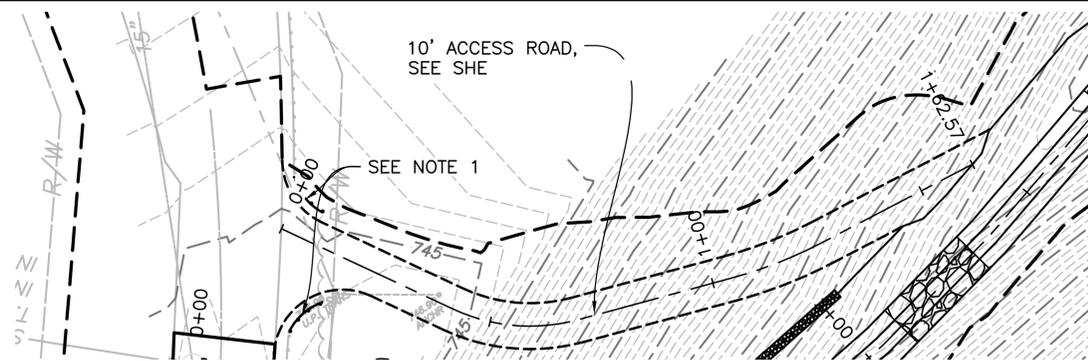
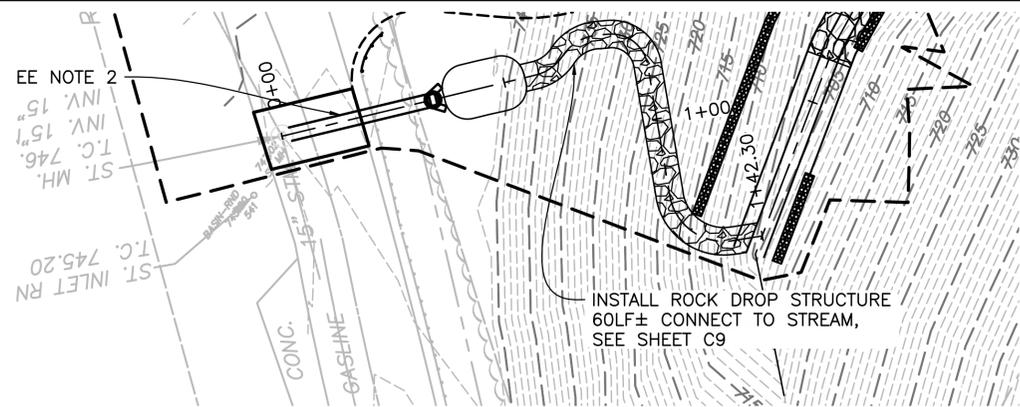
**KEY MAP**  
SCALE: 1"=400'

BOULDER WALL POINT TABLE				
POINT NO.	NORTHING	EASTING	HEIGHT (FT)	DESCRIPTION
1	604152.44	2217691.28	705.85	CL BOULDER WALL 18"-30" HEIGHT (TYP)
2	604113.63	2217668.21	705.35	CL BOULDER WALL 18"-30" HEIGHT (TYP)
3	604079.99	2217641.47	703.21	CL BOULDER WALL 18"-30" HEIGHT (TYP)
4	604165.64	2217675.86	706.10	CL BOULDER WALL 18"-30" HEIGHT (TYP)
5	604148.07	2217665.42	705.08	CL BOULDER WALL 18"-30" HEIGHT (TYP)
6	604123.00	2217650.28	704.98	CL BOULDER WALL 18"-30" HEIGHT (TYP)
7	604103.48	2217634.66	702.52	CL BOULDER WALL 18"-30" HEIGHT (TYP)
8	603940.43	2217460.07	686.19	CL BOULDER WALL 18"-30" HEIGHT (TYP)
9	603936.33	2217415.95	684.96	CL BOULDER WALL 18"-30" HEIGHT (TYP)
10	603959.96	2217453.45	685.05	CL BOULDER WALL 18"-30" HEIGHT (TYP)
11	603959.14	2217443.49	684.22	CL BOULDER WALL 18"-30" HEIGHT (TYP)
12	603933.81	2217396.11	683.26	CL BOULDER WALL 18"-30" HEIGHT (TYP)
13	603931.28	2217376.27	680.45	CL BOULDER WALL 18"-30" HEIGHT (TYP)
14	603877.04	2217313.30	675.12	CL BOULDER WALL 18"-30" HEIGHT (TYP)
15	603850.14	2217300.02	673.62	CL BOULDER WALL 18"-30" HEIGHT (TYP)
16	603827.82	2217284.36	674.25	CL BOULDER WALL 18"-30" HEIGHT (TYP)

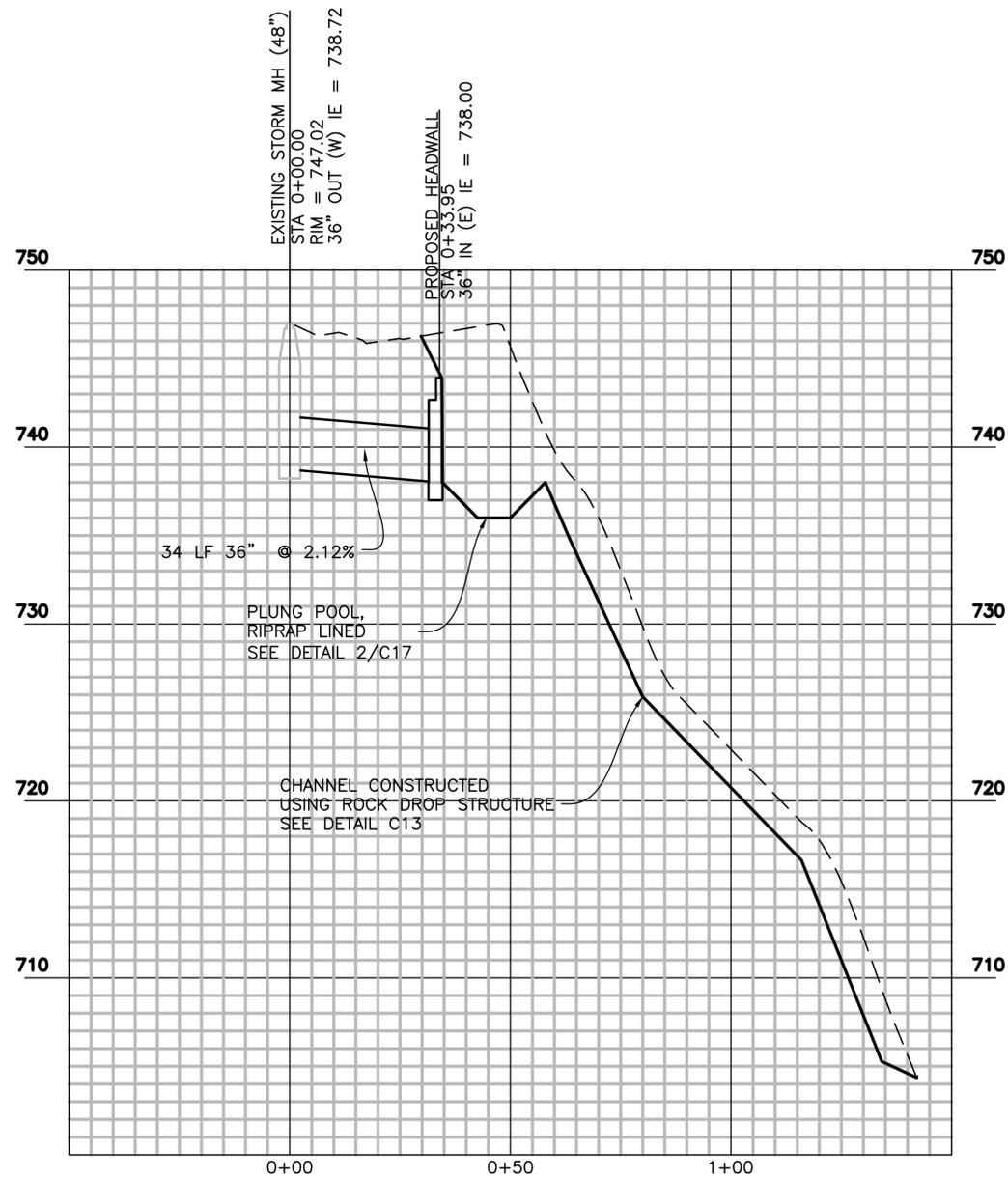


DESIGNED: R. GEIGER	<b>C6</b>	TITLE OF SHEET <b>STREAM ENHANCEMENTS PLAN VIEW</b>	DRAWING NO. <b>664 80069</b>
TECH. REVIEW: S. WALZ		CUYAHOGA VALLEY NATIONAL PARK STATION ROAD REMOVAL/STORMWATER REDIRECTION	PMIS/PKG NO. 251922
DATE: 04/16/19			SHEET <b>9</b> of <b>23</b>

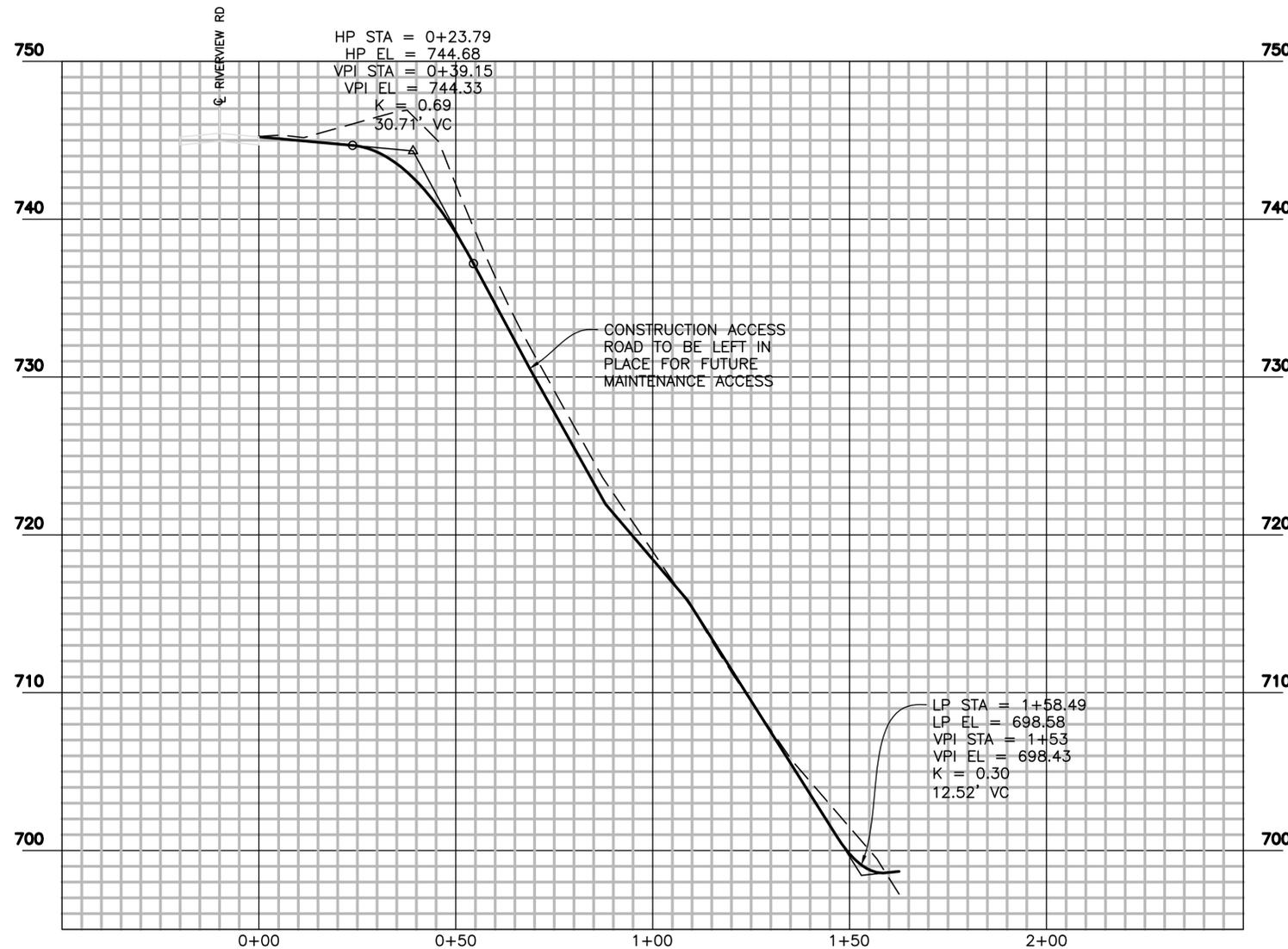
1/29/19 10:55 KCOHN R22 C:\P\WORKING\CENTRAL\00941596\06 STREAM ENHANC PLAN\DWG XREFS: \D0941594\XC-GRADING.DWG; \D0941594\XC-SURVEY.DWG; ...  
 C:\working\central\00941596\06 Stream Enhanc Plan.dwg; Plot: 4/19/2019 2:21:37 PM; GPETERS



**KEY MAP**  
SCALE: 1"=500'



**1** PLUNGE POOL AND ROCK DROP STRUCTURE PLAN AND PROFILE  
SCALE: 1" = 20'



**2** ACCESS ROAD PLAN AND PROFILE  
SCALE: 1" = 20'



**GENERAL NOTES:**

- REMOVE 36 LF OF GUARDRAIL, INSTALL 10 LF OF NEW GUARDRAIL ON EACH SIDE OF ACCESS ROAD AS SHOWN.
- SEE SHEET C16 FOR PAVEMENT REPLACEMENT DETAIL.

DESIGNED:  
R. GEIGER  
S. WALZ  
TECH. REVIEW:  
B. LUSTER  
DATE:  
04/16/19

SUB SHEET NO.  
**C9**

TITLE OF SHEET  
**STREAM ENHANCEMENTS  
PROFILE VIEW**  
CUYAHOGA VALLEY NATIONAL PARK  
STATION ROAD REMOVAL/STORMWATER REDIRECTION

DRAWING NO.  
**664  
80069**  
PMS/PKG NO.  
251922  
SHEET  
**12** OF **23**

# CHIPPEWA ROAD & CALVIN DR. SANITARY SEWER (WIESE RD. TO RIVERVIEW RD.) IMPROVEMENT PLANS

CITY OF BRECKSVILLE

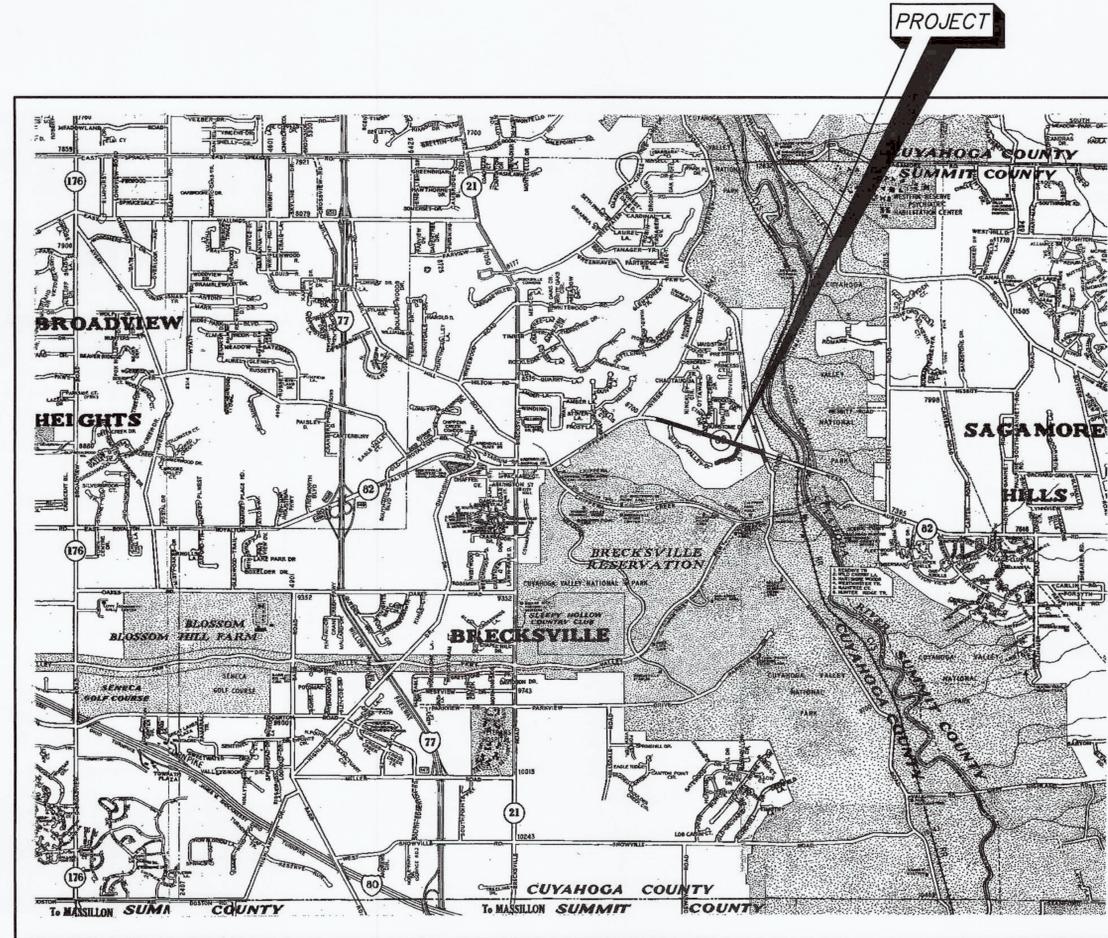
CUYAHOGA COUNTY ~ STATE OF OHIO

BASIS OF SURVEY

BEARINGS AND ELEVATIONS ARE REFERENCED TO GPS OBSERVATIONS MADE WITH THE OHIO DEPARTMENT OF TRANSPORTATION REAL TIME NETWORK SYSTEM TO THE OHIO STATE PLANE COORDINATE SYSTEM, NORTH ZONE, NAD 83 (2011) HORIZONTAL DATUM, NAVD 88 VERTICAL DATUM, IN JANUARY, 2019 AND ARE USED TO INDICATE ANGLES ONLY.

**CONVENTIONAL SIGNS:**

ITEM	EXISTING	PROPOSED	RECONST'D
RIGHT OF WAY	---	---	
CENTERLINE	---	---	
PROPERTY LINE	---	---	
EASEMENT LINE	--- EL ---	--- EL ---	
TEMP. EASEMENT LINE	--- TEL ---	--- TEL ---	
GAS MAIN	---	---	
GAS CONNECTION	G.C.		
WATER MAIN	---	---	
HYDRANT & VALVE	HA	HA	
WATER CONNECTION	--- EXTG. W.C. ---	--- W.C. ---	
WATER MAIN VALVE	WV	WV	
SANITARY SEWER	---	---	
SANITARY CONNECTION	SAN.C.	SAN.C.	
STORM SEWER	---	---	
STORM CONNECTION	--- ST.C. ---	--- ST.C. ---	
UNDERGRD. TELE. DUCTS	--- T ---	--- T ---	
UNDERGRD. ELEC. CABLE	--- E ---	--- E ---	
UNDERGRD. TV CABLE	--- TV ---	--- TV ---	
FENCE	--- X ---	--- X ---	
GUARDRAIL	---	---	
UTILITY POLE	U		* - RELOCATED
LIGHT POLE	L		* - RELOCATED
MONUMENT ASSEMBLY	◇	◆	
MANHOLE	○	●	
BASIN	□	■	
SIGN POST	+	+	
TREE BRUSH	⊗		
TREE/BRUSH TO BE REMOVED		⊗	
WELL	W		
SEPTIC TANK	S		
SWALE	---	---	
SPOT ELEVATION	100.0	100.0	
CONTOUR ELEVATION	100	100	



**LOCATION MAP**

NOT TO SCALE



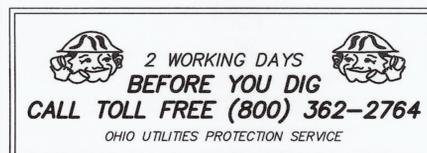
*Gerald M. Wise*  
GERALD M. WISE, P.E.  
CITY OF BRECKSVILLE ENGINEER

3/30/22  
DATE

OHIO ENVIRONMENTAL PROTECTION AGENCY (O.E.P.A.)

PTI (PERMIT TO INSTALL) SANITARY SEWER DATE:

NPDES PERMIT NO: 3810-289-E  
NOI SUBMISSION DATE: 12/01/2021  
APPROVAL DATE: 12/07/2021  
PERMIT NO.: 3GC12676\*AG



**INDEX OF SHEETS**

- 1 TITLE SHEET
- 2-14 PLAN & PROFILES
- 15-16 GENERAL NOTES & DETAILS
- 17 MAINTENANCE OF TRAFFIC PLAN
- 18-20 DETAILS

REVISIONS

STATE OF OHIO  
GERALD M. WISE  
E-61831  
PROFESSIONAL ENGINEER

OWNER  
CITY OF BRECKSVILLE  
CITY ENGINEER  
BRECKSVILLE, OHIO 44141  
PHONE: (440) 526-4351

TITLE SHEET  
CHIPPEWA RD. & CALVIN DR. SANITARY  
(WIESE RD. TO RIVERVIEW RD.)  
CITY OF BRECKSVILLE  
CUYAHOGA COUNTY, OHIO

DONALD G. BOHNING & ASSOCIATES, INC.  
CIVIL ENGINEERING & SURVEYING  
7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
PHONE: (216) 842-1130 FAX: (216) 842-1132  
An Equal Opportunity Employer M/F/V/D/V



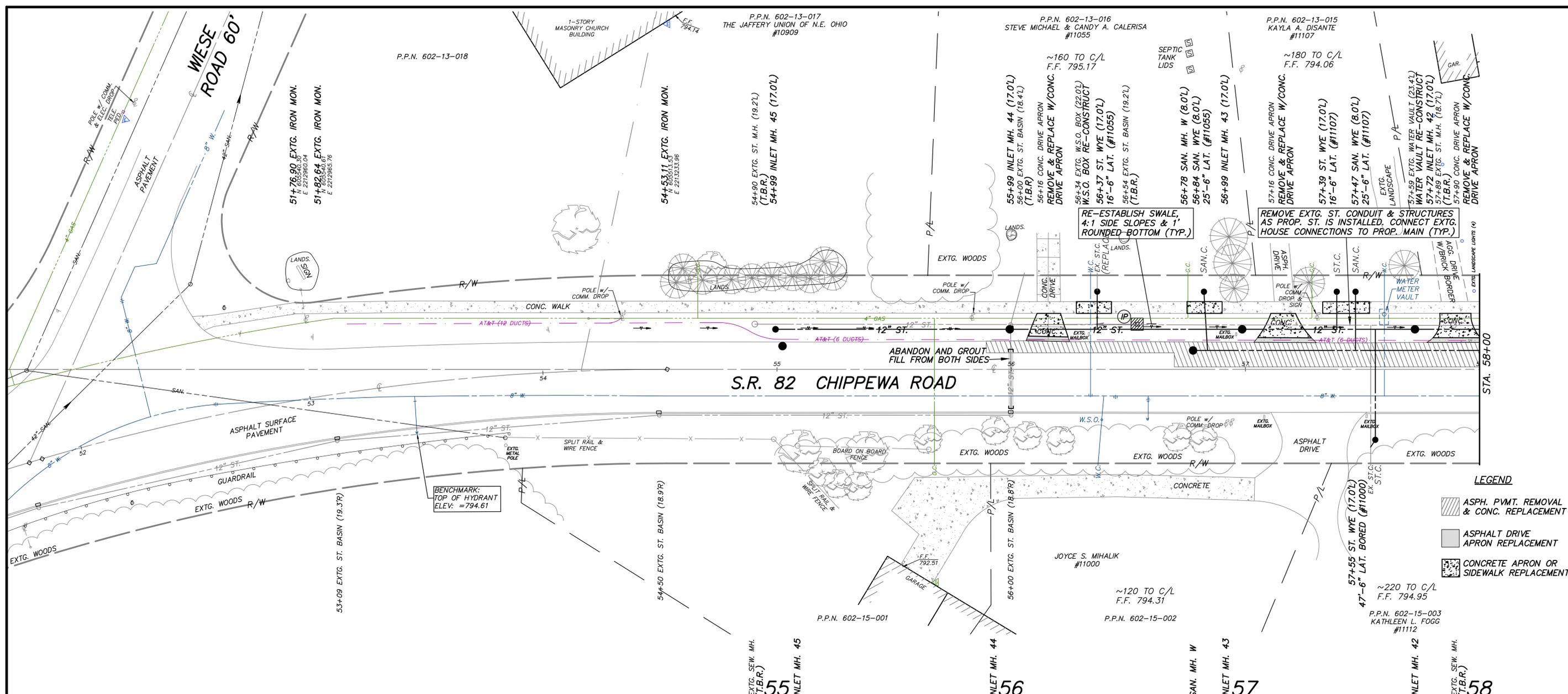
HORIZ. SCALE

VERT. SCALE

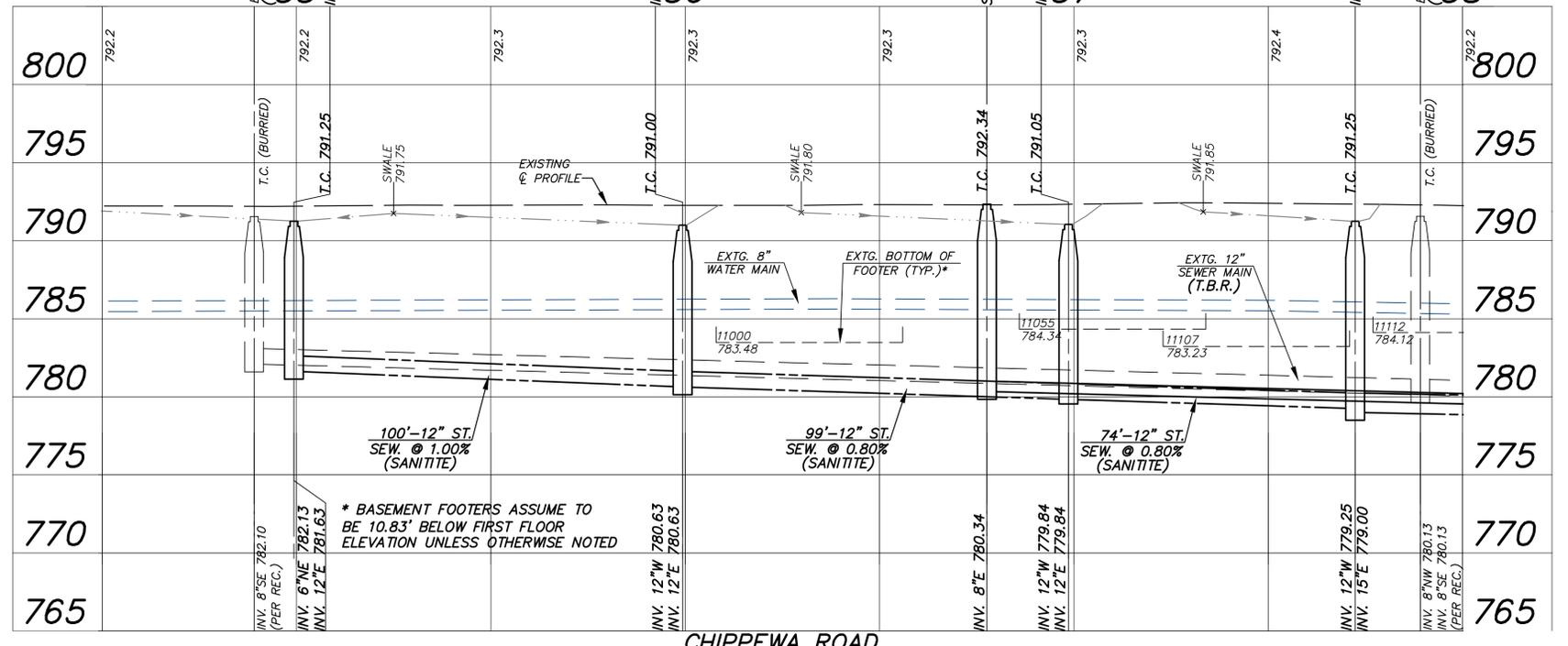
DRN: E. W. G. W.

DATE: FEB, 2022

ORDER NO. 3810-289-E



- NOTES: (APPLY TO ALL PLAN AND PROFILE SHEETS)**
- 1.) STORM LATERALS ARE DEPICTED BASED ON BEST AVAILABLE RECORDS, BUT ARE SUBJECT TO CHANGE PENDING ACTUAL FIELD DETERMINED LOCATIONS. AS UNCOVERED, ALL STORM LATERALS ARE TO BE IMMEDIATELY CONNECTED TO THE NEW STORM SEWER SO THEY ARE OPERATIONAL. INTERIM REPAIRS MAY BE REQUIRED BASED ON THE CONTRACTORS METHODS. ALL INTERIM REPAIRS ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS OTHER ITEMS.
  - 2.) ALONG CHIPPEWA ROAD ALL LONG/SOUTH-SIDE CONNECTIONS ARE TO BE BORED UNDER THE EAST BOUND LANE NOT TO INTERFERE WITH TRAFFIC. ALL BORE PITS SHALL BE ON THE NORTH SIDE AND ONLY RECEIVING PITS CAN BE EXCAVATED ON SOUTH-SIDE. ALL BORING MATERIAL SHALL COMPLY WITH PLAN DETAILS.
  - 3.) EXISTING STORM SEWERS ARE BEING REPLACED AS PART OF THIS PROJECT. EXISTING SEWERS SHALL BE REMOVED AND/OR ABANDONED AS DESIGNATED. ALL REMOVAL AND ABANDONMENT SHALL BE DONE IN A MANNER THAT LEAVES THE SEWER INTACT AND FUNCTIONAL UNTIL ALL LATERALS HAVE BEEN RECONNECTED TO A NEW SEWER SYSTEM. ALL COST SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.



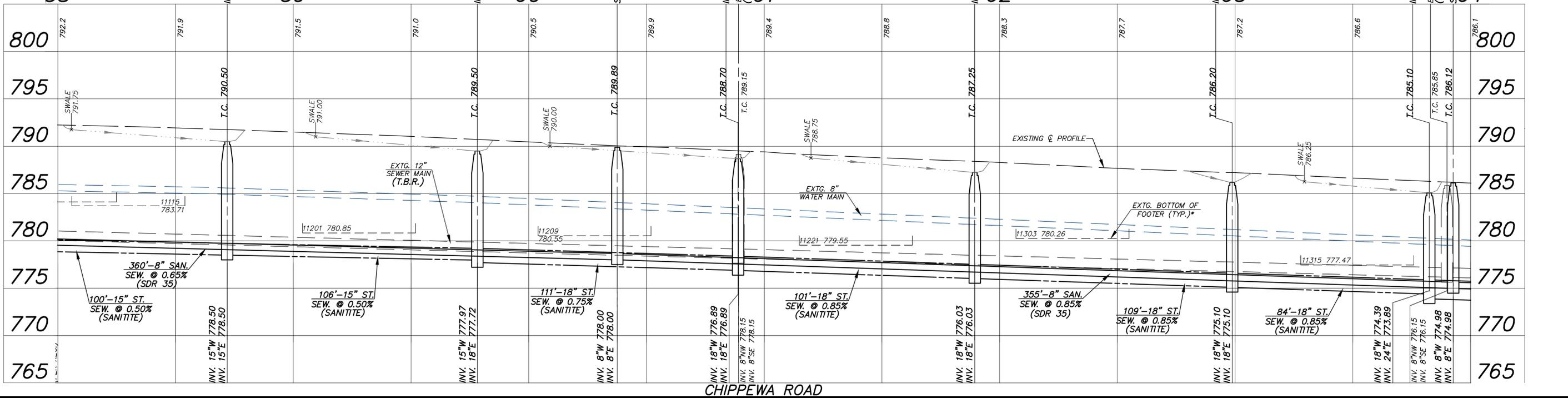
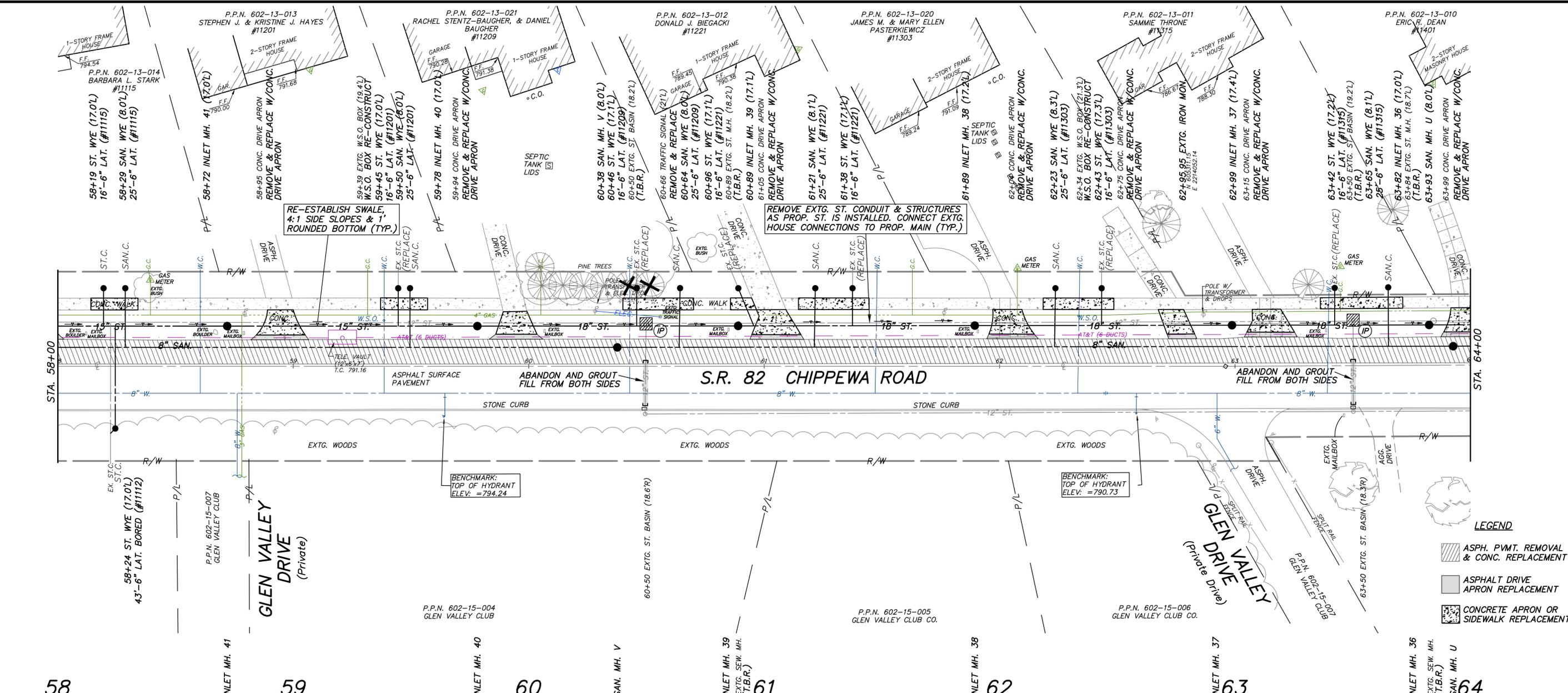
**PLAN AND PROFILE**  
**WIESE ROAD TO STA. 58+00**  
**CHIPPEWA RD. & CALVIN DR.**  
**CITY OF BRECKSVILLE**  
**CUYAHOGA COUNTY, OHIO**

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 W. Lohmeyer Dr. 13000-3999 Lorain, Ohio 44130-2884 E-MAIL: dgb@dgbo.com



HORIZ. SCALE  
 1" = 20'  
 VERT. SCALE  
 1" = 5'  
 DRN. E.W. G.W.  
 DATE  
 FEB, 2022  
 ORDER NO.  
 3810-289-E

2  
 20



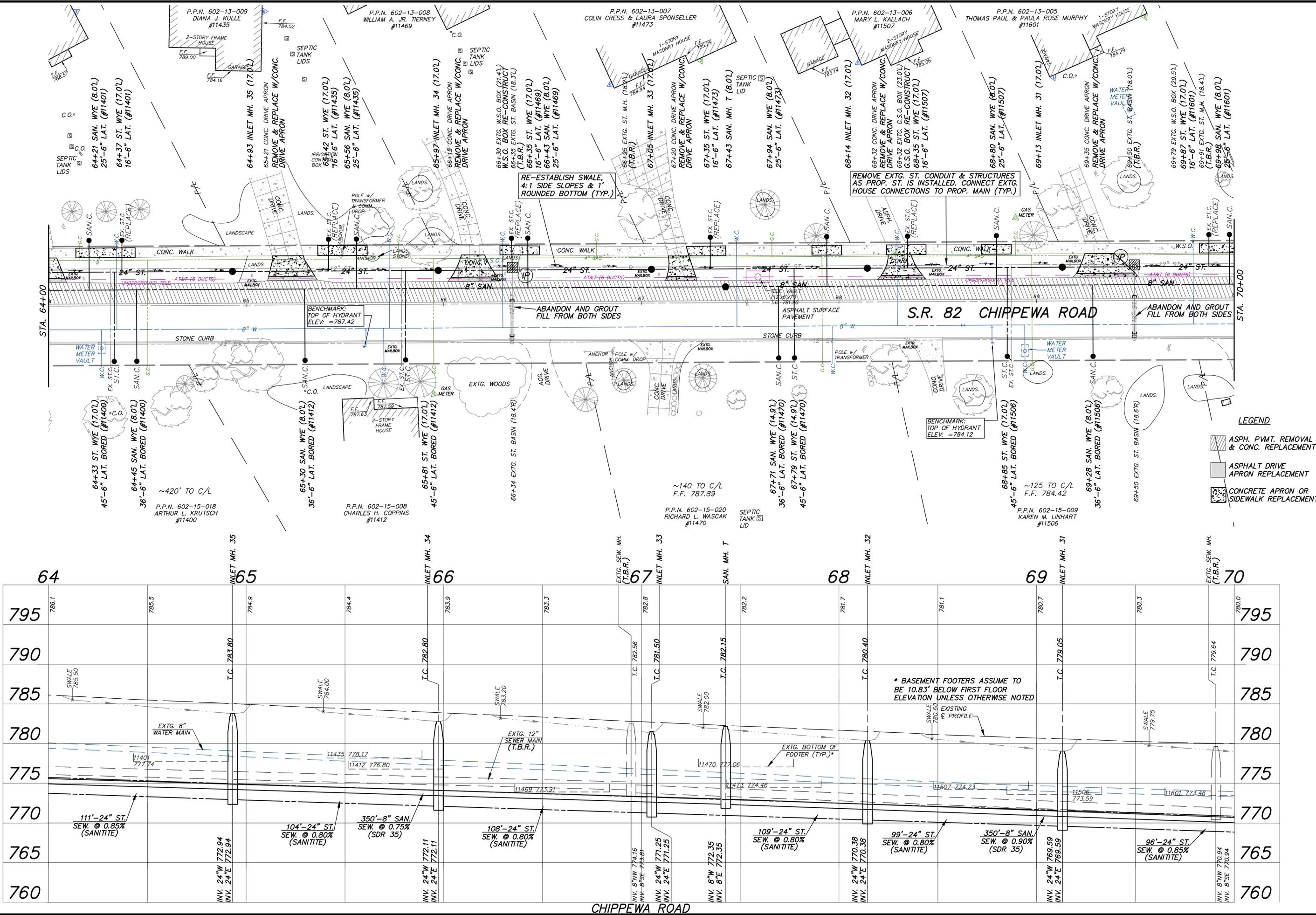
**PLAN AND PROFILE**  
**STA. 58+00 TO STA. 64+00**  
**SANITARY**  
 CHIPPEWA RD. & CALVIN DR.  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 www.dgbohning.com



HORIZ. SCALE  
 1" = 20'  
 VERT. SCALE  
 1" = 5'  
 DRN. E.W. G.W.  
 DATE  
 FEB, 2022  
 ORDER NO.  
 3810-289-E

3 / 20



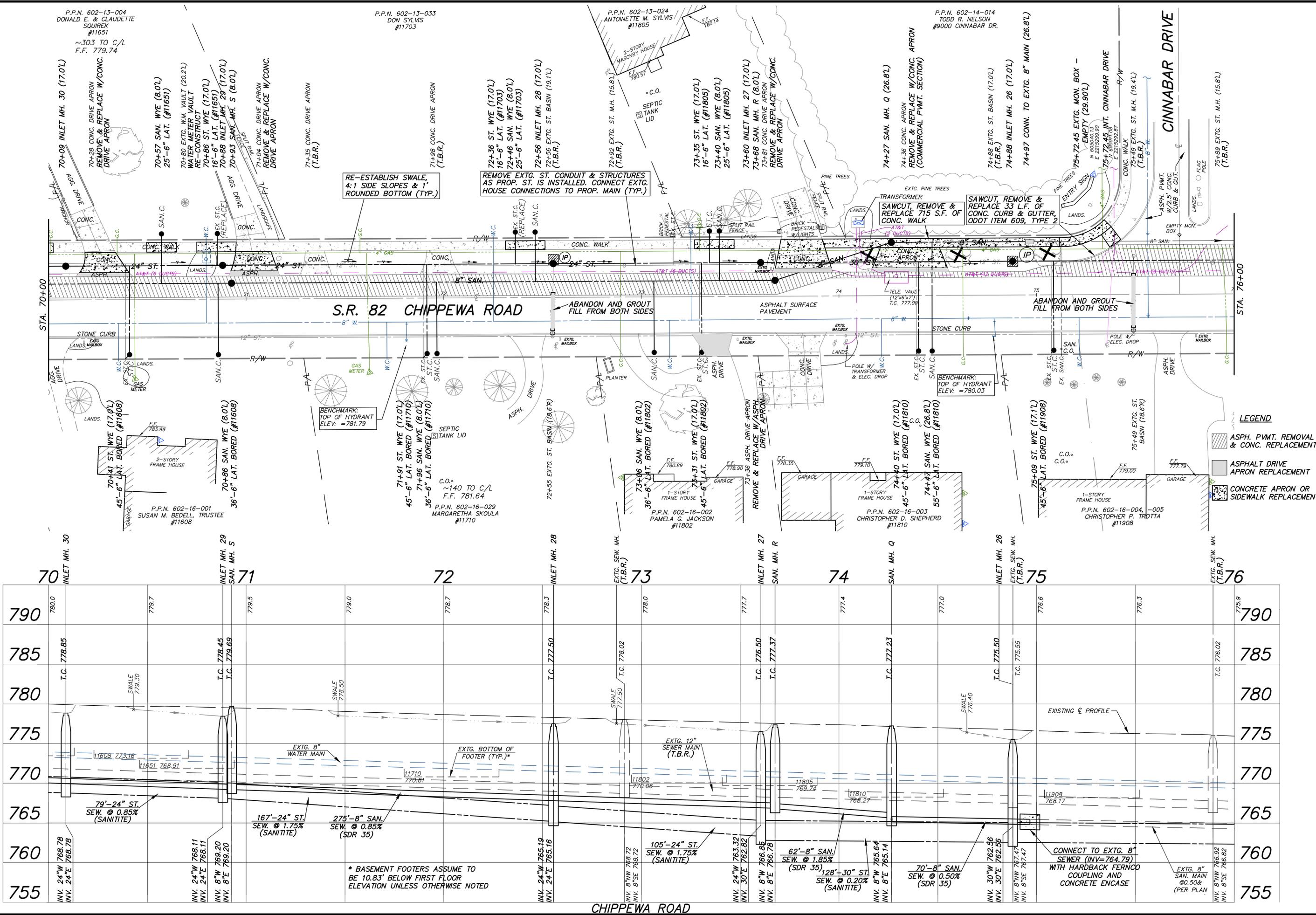
**PLAN AND PROFILE**  
 STA. 64+00 TO STA. 70+00  
 CHIPPEWA RD. & CALVIN DR.  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 www.dgbohning.com



HORIZ. SCALE: 1"=20'  
 VERT. SCALE: 1"=5'  
 DRN. E.W. G.W.  
 DATE: FEB, 2022  
 ORDER NO.: 3810-289-E

4/20



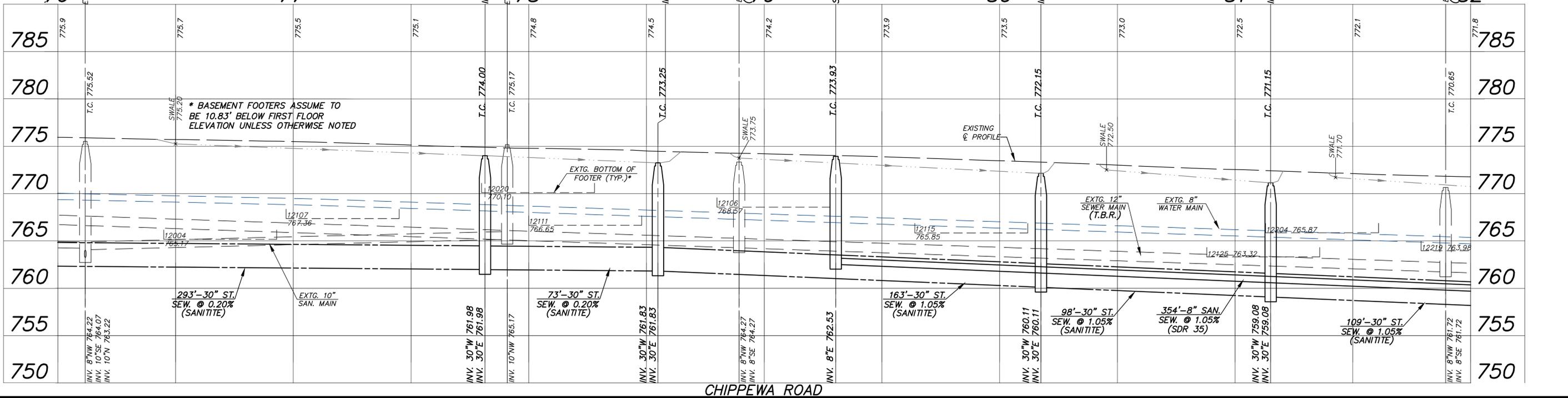
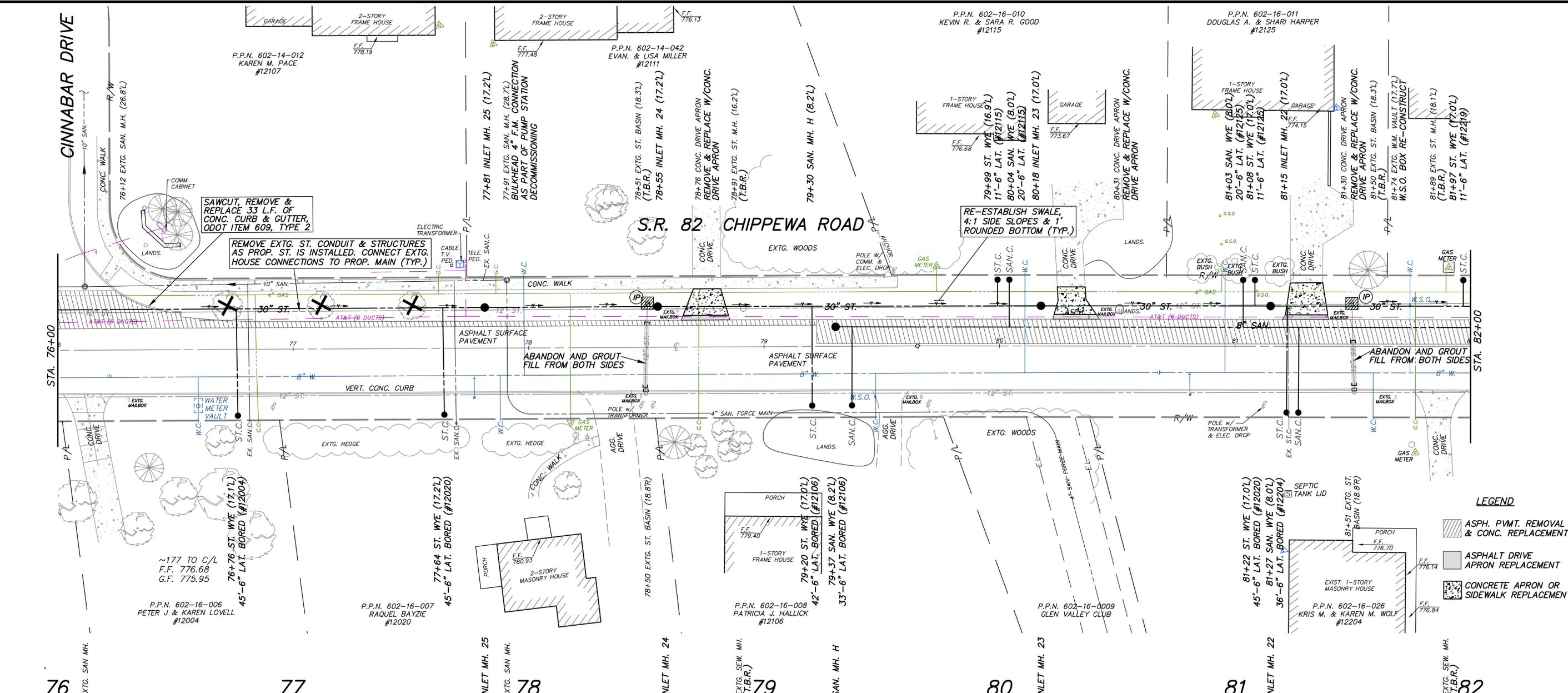


**PLAN AND PROFILE**  
 STA. 70+00 TO STA. 76+00  
 S.R. 82 CHIPPEWA ROAD  
 CHIPPEWA RD. & CALVIN DR. SANITARY  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 www.dgbonline.com

**DRN** E.W. **CRD** G.W.  
 DATE: MAR, 2022  
 ORDER NO.: 3810-289-E

**5**  
 20'



**LEGEND**

- ASPH. PVMT. REMOVAL & CONC. REPLACEMENT
- ASPHALT DRIVE APRON REPLACEMENT
- CONCRETE APRON OR SIDEWALK REPLACEMENT

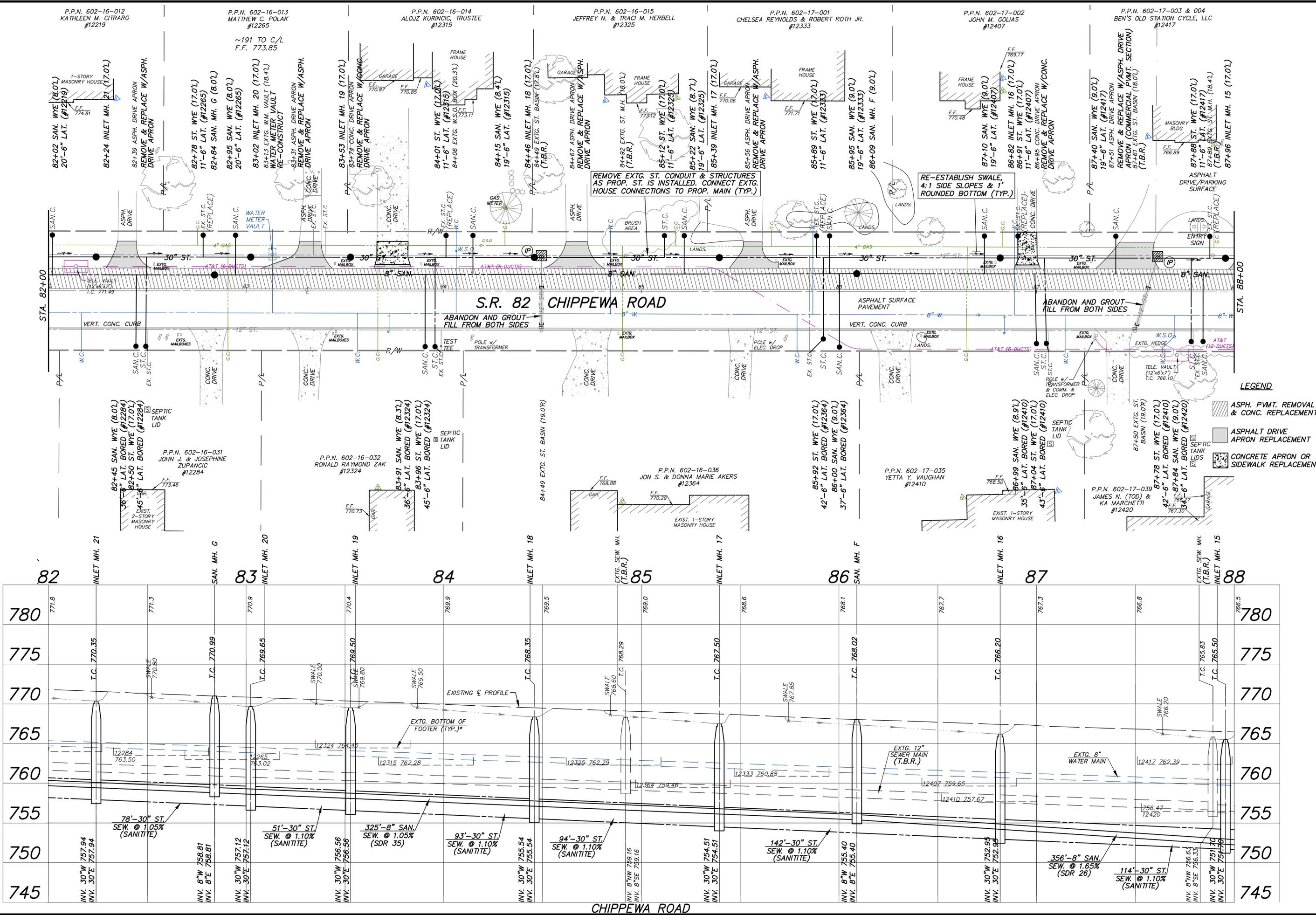
**PLAN AND PROFILE**  
 STA. 76+00 TO STA. 82+00  
 CHIPPEWA RD. & CALVIN DR. SANITARY  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 M. LUTHEMANN, L.S. 3500-3899 (BR/0), SR/10-388-C (L/MS), SR/10-388-E (MS) 2/21/2022



HORIZ. SCALE: 1"=20'  
 VERT. SCALE: 1"=5'  
 DRN. E.W. CRD. G.W.  
 DATE: FEB, 2022  
 ORDER NO.: 3810-289-E

6/20

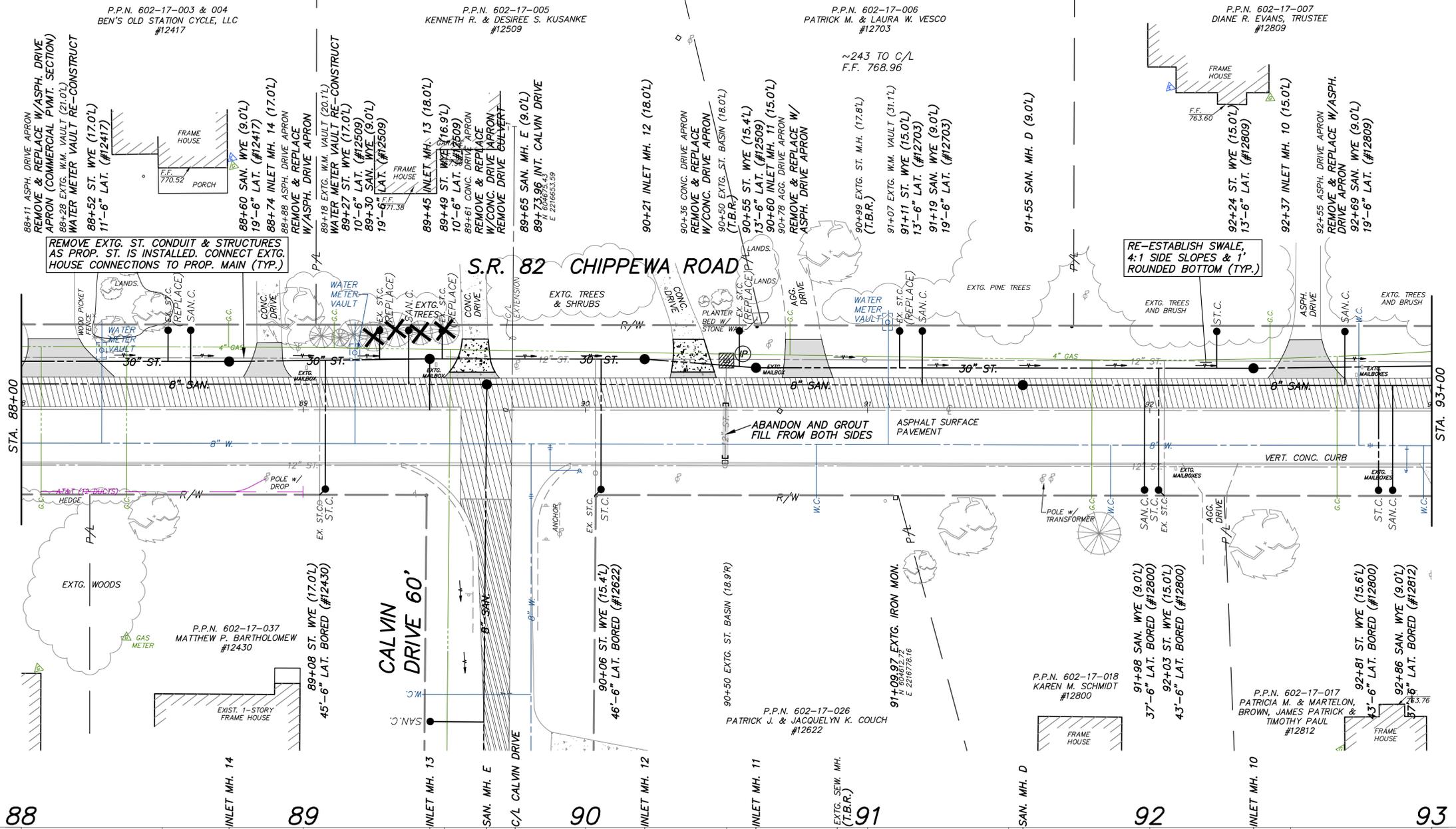


**PLAN AND PROFILE**  
 STA. 82+00 TO STA. 88+00  
 CHIPPEAWA RD. & CALVIN DR. SANITARY  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 www.dgbonline.com

**DATE:** FEB, 2022  
**ORDER NO.:** 3810-289-E

**7/20**



Station	88	89	90	91	92	93
775	766.5	766.0	765.5	764.9	763.1	762.1
770						
765						
760						
755						
750						
745						
740						

88 INLET MH. 14 89 INLET MH. 13 SAN. MH. E C/L CALVIN DRIVE 90 INLET MH. 12 INLET MH. 11 EXTG. SEW. MH. (T.B.R.) 91 SAN. MH. D 92 INLET MH. 10 93

775 766.5 766.0 765.5 764.9 763.1 762.1 761.1 760.1 759.1 758.1

770 766.0 765.0 764.0 763.0 762.0 761.0 760.0 759.0 758.0

765 765.0 764.0 763.0 762.0 761.0 760.0 759.0 758.0

760 764.0 763.0 762.0 761.0 760.0 759.0 758.0

755 763.0 762.0 761.0 760.0 759.0 758.0

750 762.0 761.0 760.0 759.0 758.0

745 761.0 760.0 759.0 758.0

740 760.0 759.0 758.0

78'-30" ST. SEW. @ 1.10% (SANITITE)

71'-30" ST. SEW. @ 1.05% (SANITITE)

76'-30" ST. SEW. @ 0.85% (SANITITE)

40'-30" ST. SEW. @ 1.30% (SANITITE)

190'-8" SAN. SEW. @ 0.50% (SDR 26)

176'-30" ST. SEW. @ 1.30% (SANITITE)

216'-8" SAN. SEW. @ 1.30% (SDR 35)

\* BASEMENT FOOTERS ASSUME TO BE 10.83' BELOW FIRST FLOOR ELEVATION UNLESS OTHERWISE NOTED

CHIPPEWA ROAD

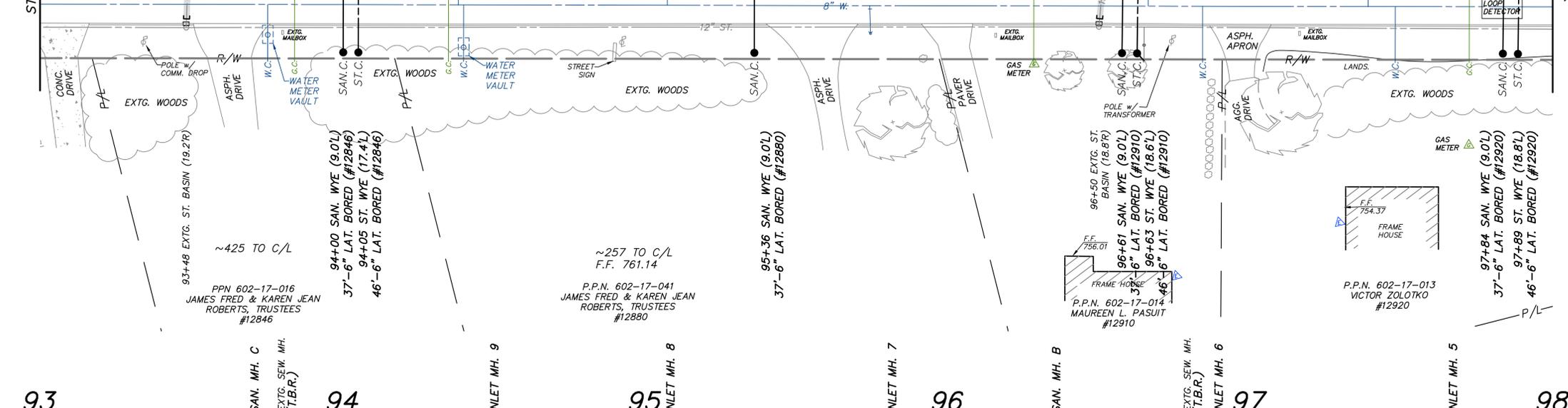
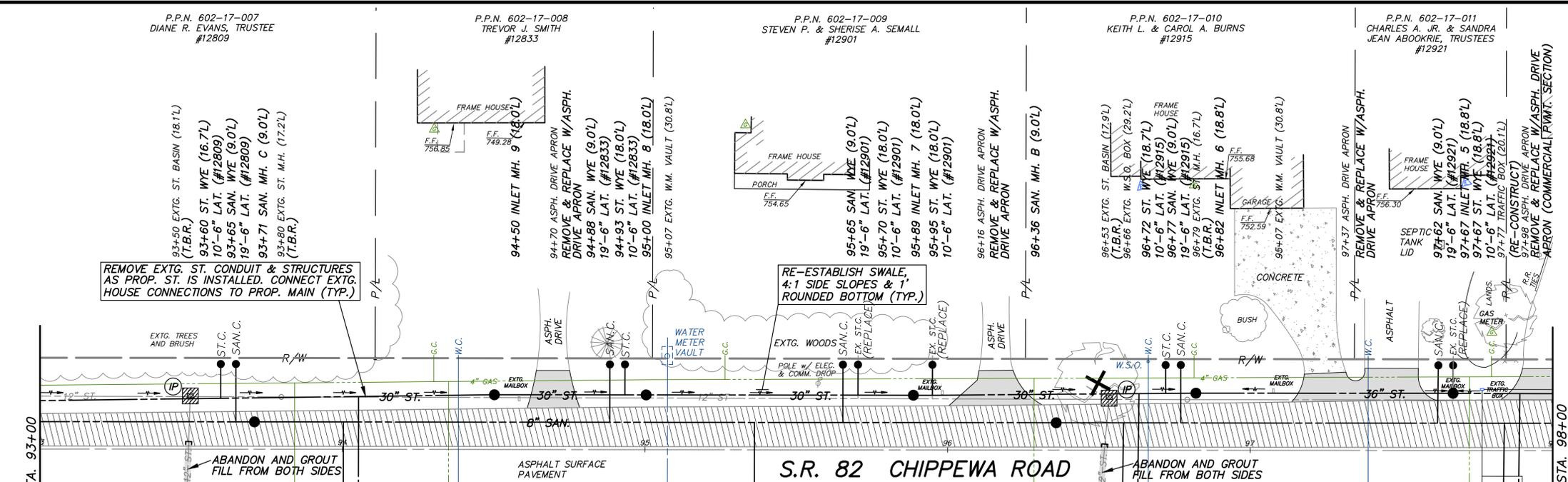
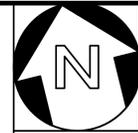
PLAN AND PROFILE  
 STA. 88+00 TO STA. 93+00  
 CHIPPEWA RD. & CALVIN DR. SANITARY  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

DONALD G. BOHNING & ASSOCIATES, INC.  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 W. LUTHERSON DA. 15300-3899 (BR/0), 3810-3884 (CL/MS), 3810-3884 (E/MS) 2/25/2022



HORIZ. SCALE  
 1" = 20'  
 VERT. SCALE  
 1" = 5'  
 DRN. E.W. G.W.  
 DATE  
 FEB, 2022  
 ORDER NO.  
 3810-289-E

8  
 20



Station	765	760	755	750	745	740	735	730
93	758.1	757.0						
94								
95								
96								
97								
98	751.8	760	755	750	745	740	735	730

**PLAN AND PROFILE**  
 STA. 93+00 TO STA. 98+00  
 CHIPPEAWA RD. & CALVIN DR. SANITARY  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 www.dgbohning.com



HORIZ. SCALE  
 1" = 20'  
 VERT. SCALE  
 1" = 5'  
 DRN. E.W. CDD. G.W.  
 DATE  
 FEB, 2022  
 ORDER NO.  
 3810-289-E

9  
 20

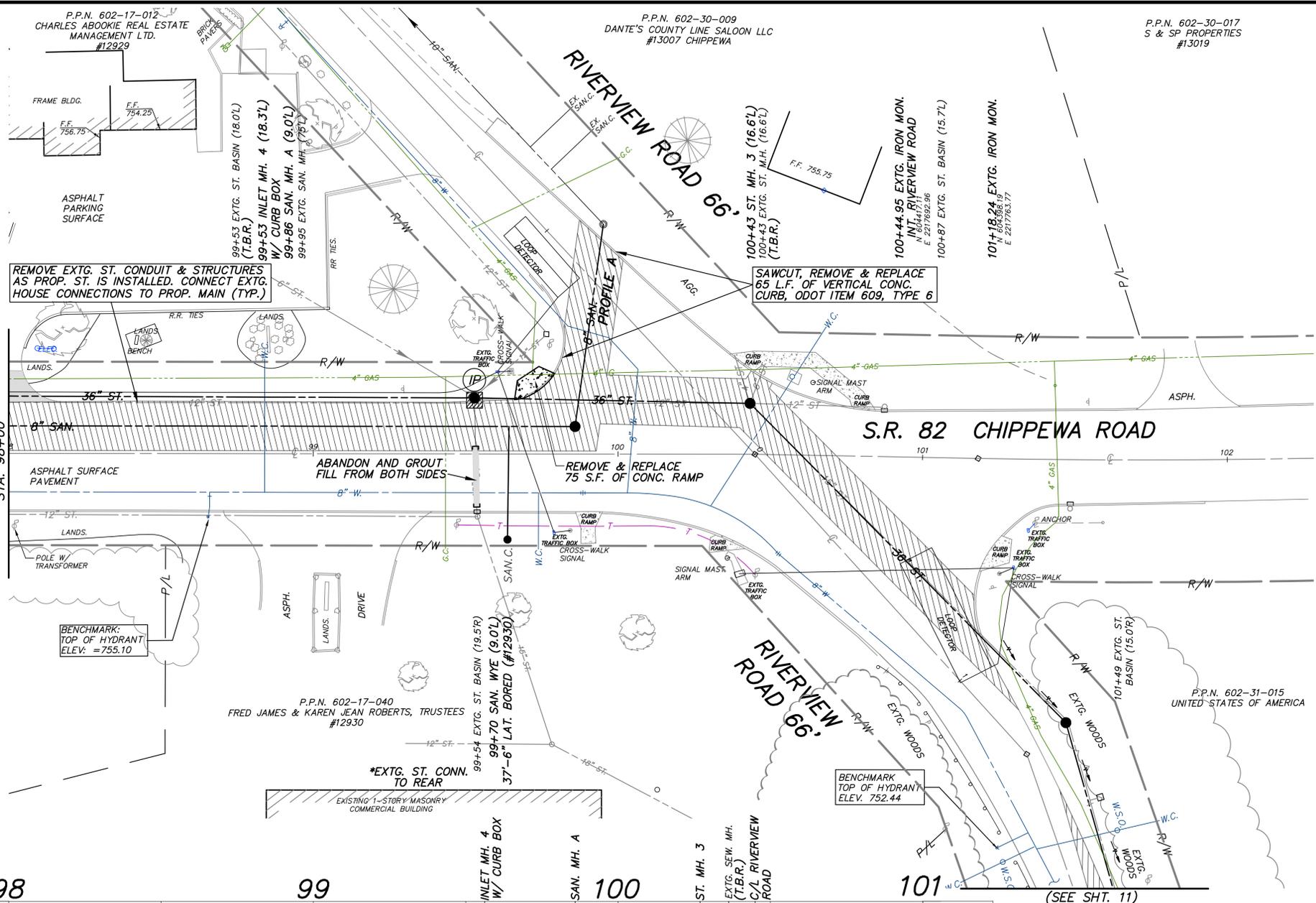
\* BASEMENT FOOTERS ASSUME TO BE 10.83' BELOW FIRST FLOOR ELEVATION UNLESS OTHERWISE NOTED



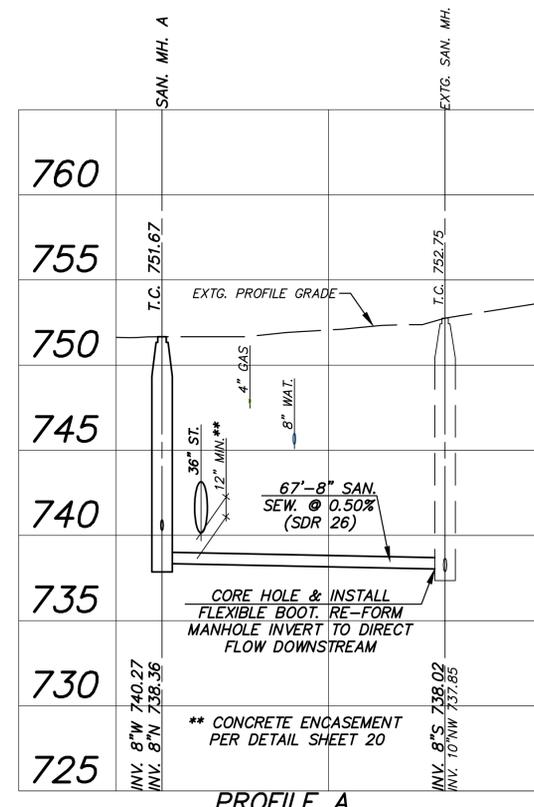
- NOTES: (APPLY TO ALL PLAN AND PROFILE SHEETS)**
- 1.) STORM LATERALS ARE DEPICTED BASED ON BEST AVAILABLE RECORDS, BUT ARE SUBJECT TO CHANGE PENDING ACTUAL FIELD DETERMINED LOCATIONS. AS UNCOVERED, ALL STORM LATERALS ARE TO BE IMMEDIATELY CONNECTED TO THE NEW STORM LATERAL SO THEY ARE OPERATIONAL. INTERIM REPAIRS MAY BE REQUIRED BASED ON THE CONTRACTORS METHODS. ALL INTERIM REPAIRS ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS OTHER ITEMS.
  - 2.) ALONG CHIPPEWA ROAD ALL LONG/SOUTH-SIDE CONNECTIONS ARE TO BE BORED UNDER THE EAST BOUND LANE NOT TO INTERFERE WITH TRAFFIC. ALL BORE PITS SHALL BE ON THE NORTH SIDE AND ONLY RECEIVING PITS CAN BE EXCAVATED ON SOUTH-SIDE. ALL BORING MATERIAL SHALL COMPLY WITH PLAN DETAILS.
  - 3.) EXISTING STORM SEWERS ARE BEING REPLACED AS PART OF THIS PROJECT. EXISTING SEWERS SHALL BE REMOVED AND/OR ABANDONED AS DESIGNATED. ALL REMOVAL AND ABANDONMENT SHALL BE DONE IN A MANNER THAT LEAVES THE SEWER INTACT AND FUNCTIONAL UNTIL ALL LATERALS HAVE BEEN RECONNECTED TO A NEW SEWER SYSTEM. ALL COST SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.

**LEGEND**

-  ASPH. P.V.M.T. REMOVAL & CONC. REPLACEMENT
-  ASPHALT DRIVE APRON REPLACEMENT
-  CONCRETE APRON OR SIDEWALK REPLACEMENT



98	99	100	101	760			
760	751.8	751.8	751.6	751.7	751.5	751.2	760
755							755
750							750
745							745
740							740
735							735
730							730
725							725



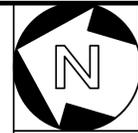
**PLAN AND PROFILE**  
**STA. 98+00 TO STA. 103+00**  
**CHIPPEWA RD. & CALVIN DR. SANITARY**  
**CITY OF BRECKSVILLE**  
**CUYAHOGA COUNTY, OHIO**

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
As Licensed In: 13300-3899 (R010), 13100-3888-C (L006), 13100-3890-2888-E (Reg. 1/2/02/2822)



HORIZ. SCALE  
**1"=20'**  
 VERT. SCALE  
**1"=5'**  
 DRN. CRD.  
 E.W. G.W.  
 DATE  
**MAR, 2022**  
 ORDER NO.  
**3810-289-E**

**10/20**



PLAN AND PROFILE  
STA. 98+00 TO STA. 103+00  
CHIPPEWA RD. & CALVIN DR. SANITARY  
CITY OF BRECKSVILLE  
CUYAHOGA COUNTY, OHIO

DONALD G. BOHNING & ASSOCIATES, INC.  
CIVIL ENGINEERING & SURVEYING  
7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
PHONE: (216) 642-1130 FAX: (216) 642-1132  
M. LUTHEMANN, 15300-3899 (800) 389-2884 (T) (216) 642-2884 (E) (216) 642-2822

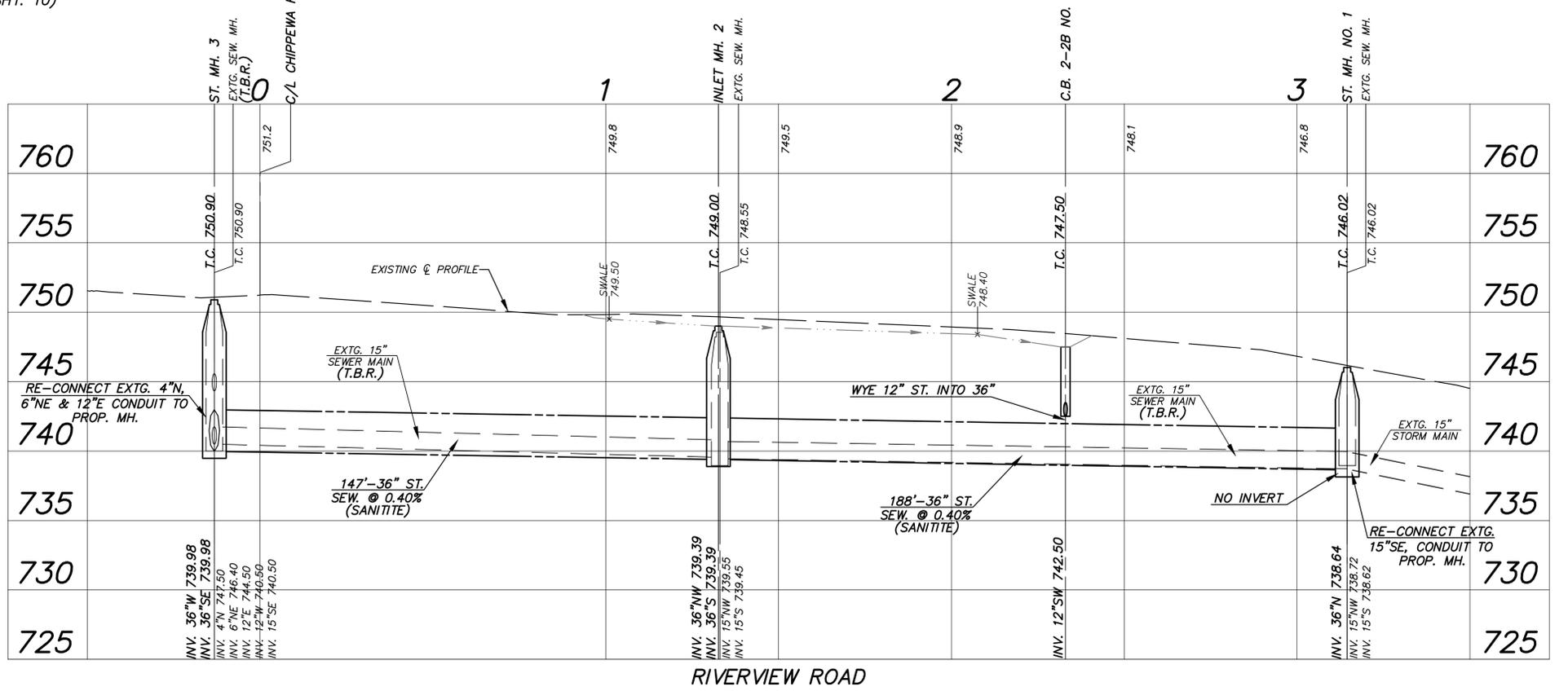
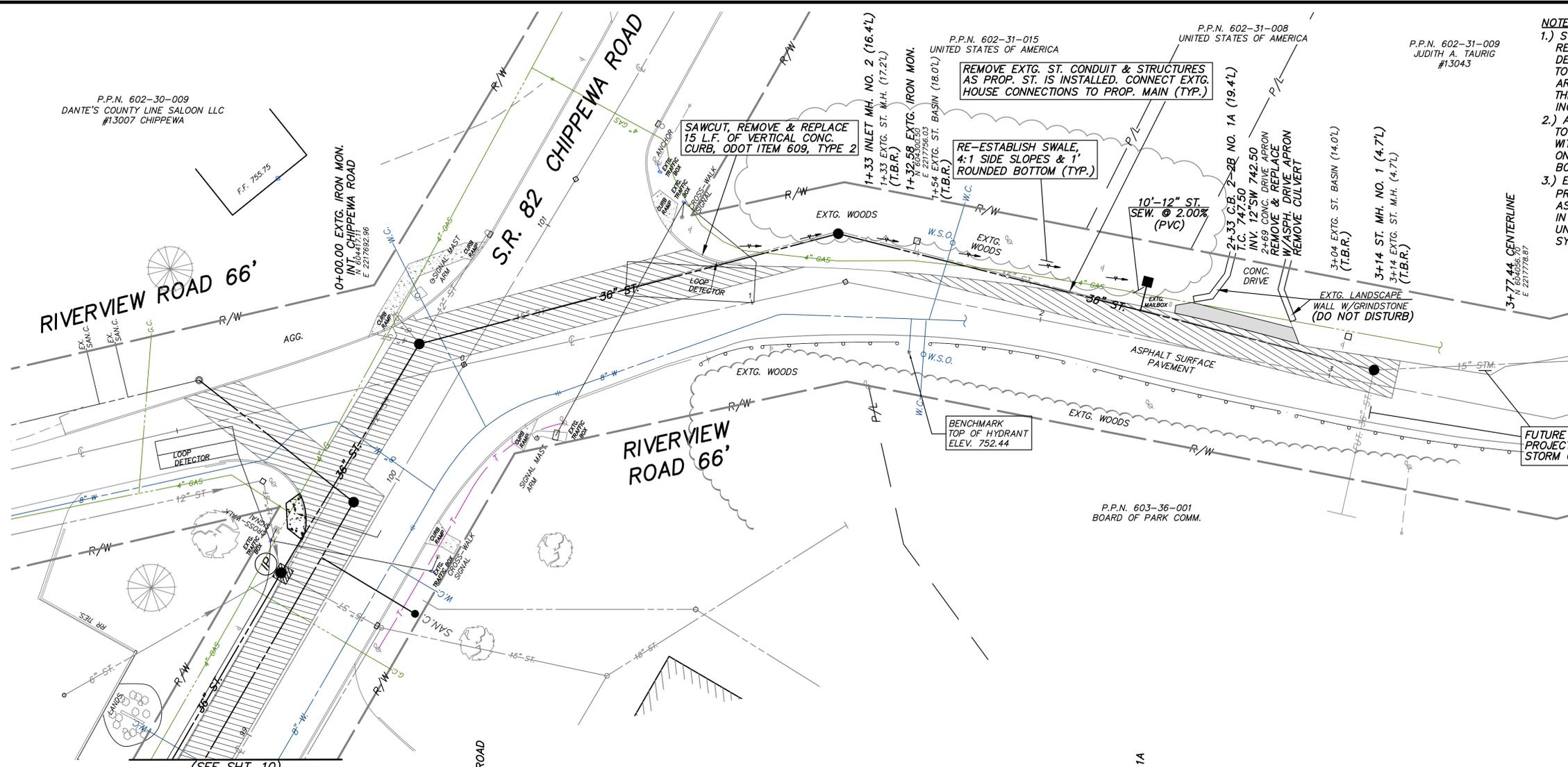


HORIZ. SCALE  
1" = 20'  
VERT. SCALE  
1" = 5'  
DRN. E.W. G.W.  
DATE  
FEB, 2022  
ORDER NO.  
3810-289-E

11/20

NOTES: (APPLY TO ALL PLAN AND PROFILE SHEETS)  
1.) STORM LATERALS ARE DEPICTED BASED ON BEST AVAILABLE RECORDS, BUT ARE SUBJECT TO CHANGE PENDING ACTUAL FIELD DETERMINED LOCATIONS. AS UNCOVERED, ALL STORM LATERALS ARE TO BE IMMEDIATELY CONNECTED TO THE NEW STORM SEWER SO THEY ARE OPERATIONAL. INTERIM REPAIRS MAY BE REQUIRED BASED ON THE CONTRACTORS METHODS. ALL INTERIM REPAIRS ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS OTHER ITEMS.  
2.) ALONG CHIPPEWA ROAD ALL LONG/SOUTH-SIDE CONNECTIONS ARE TO BE BORED UNDER THE EAST BOUND LANE NOT TO INTERFERE WITH TRAFFIC. ALL BORE PITS SHALL BE ON THE NORTH SIDE AND ONLY RECEIVING PITS CAN BE EXCAVATED ON SOUTH-SIDE. ALL BORING MATERIAL SHALL COMPLY WITH PLAN DETAILS.  
3.) EXISTING STORM SEWERS ARE BEING REPLACED AS PART OF THIS PROJECT. EXISTING SEWERS SHALL BE REMOVED AND/OR ABANDONED AS DESIGNATED. ALL REMOVAL AND ABANDONMENT SHALL BE DONE IN A MANNER THAT LEAVES THE SEWER INTACT AND FUNCTIONAL UNTIL ALL LATERALS HAVE BEEN RECONNECTED TO A NEW SEWER SYSTEM. ALL COST SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.

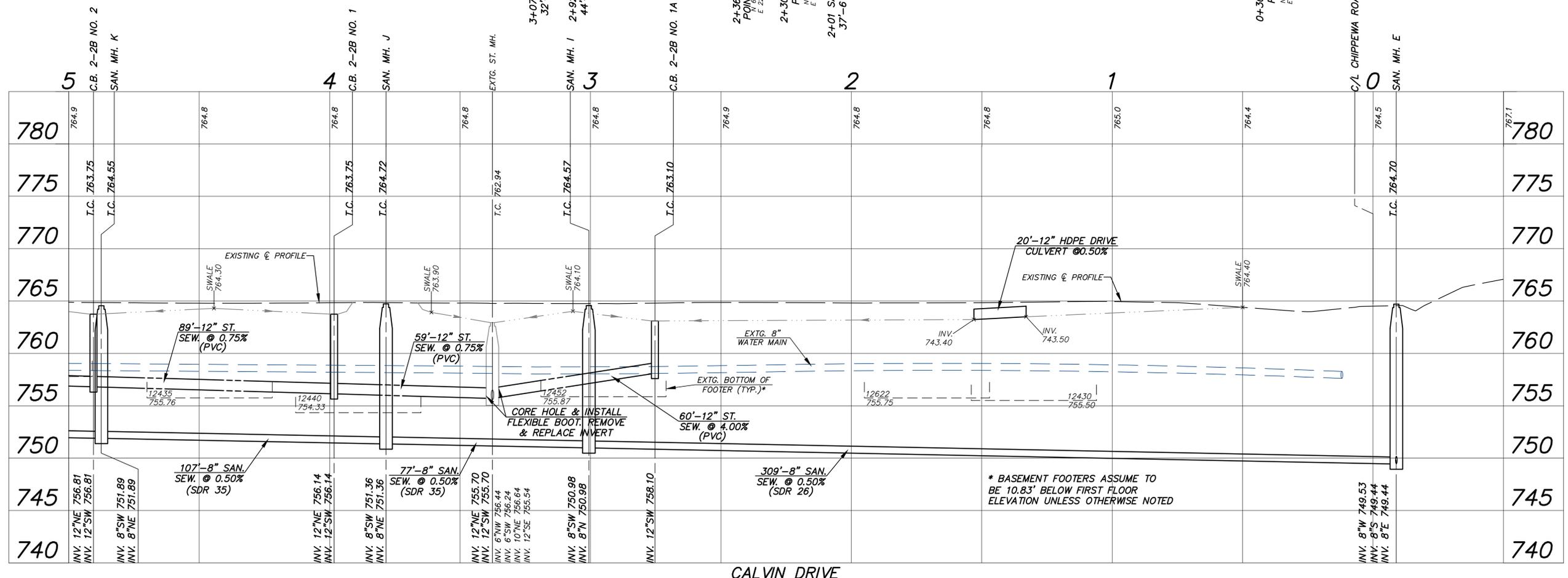
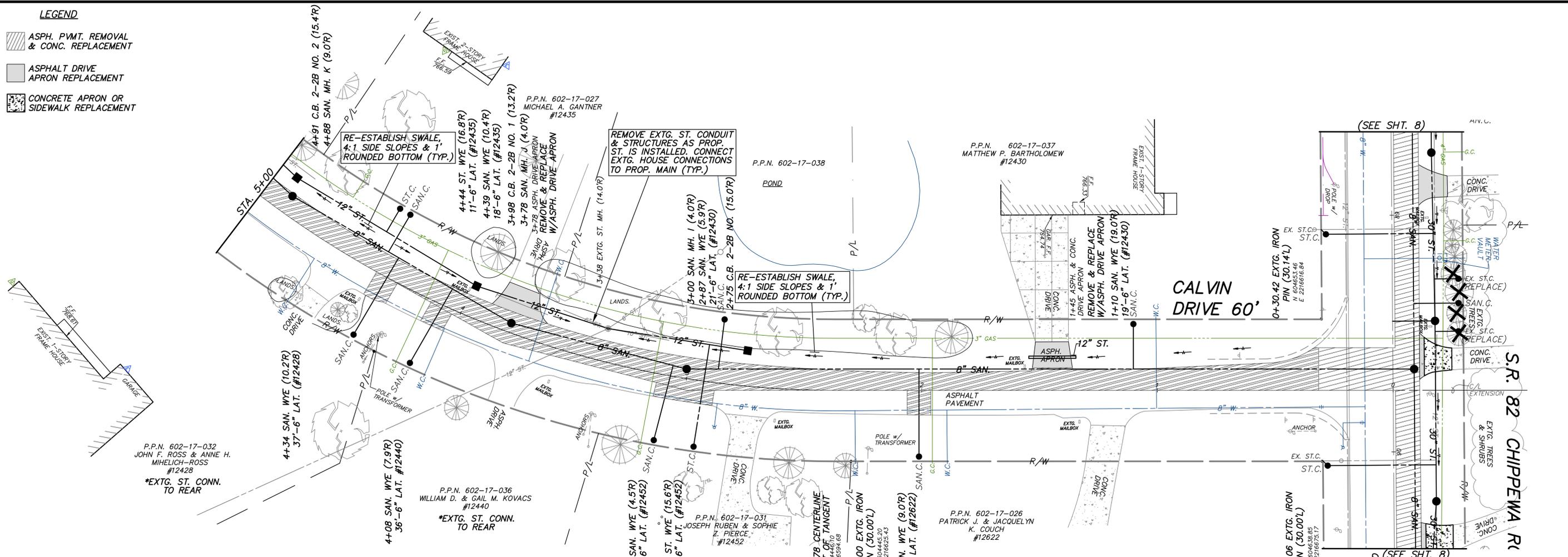
LEGEND  
ASPH. PVMT. REMOVAL & CONC. REPLACEMENT  
ASPHALT DRIVE APRON REPLACEMENT  
CONCRETE APRON OR SIDEWALK REPLACEMENT



RIVERVIEW ROAD

**LEGEND**

-  ASPH. P.V.M.T. REMOVAL & CONG. REPLACEMENT
-  ASPHALT DRIVE APRON REPLACEMENT
-  CONCRETE APRON OR SIDEWALK REPLACEMENT





**PLAN AND PROFILE**  
 STA. 0+00 TO STA. 7+00  
 CHIPPEWA RD. & CALVIN DR. SANITARY  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

---

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
AL LUTHEMANN, L3500-3893, 38763, 3810-3884-CUYAHS, 3810-3884-E-WAY 2/75/2822

---



---

HORIZ. SCALE: 1" = 20'  
 VERT. SCALE: 1" = 5'

DRN. E.W. Ckd. G.W.

DATE: FEB, 2022  
 ORDER NO.: 3810-289-E

12/20

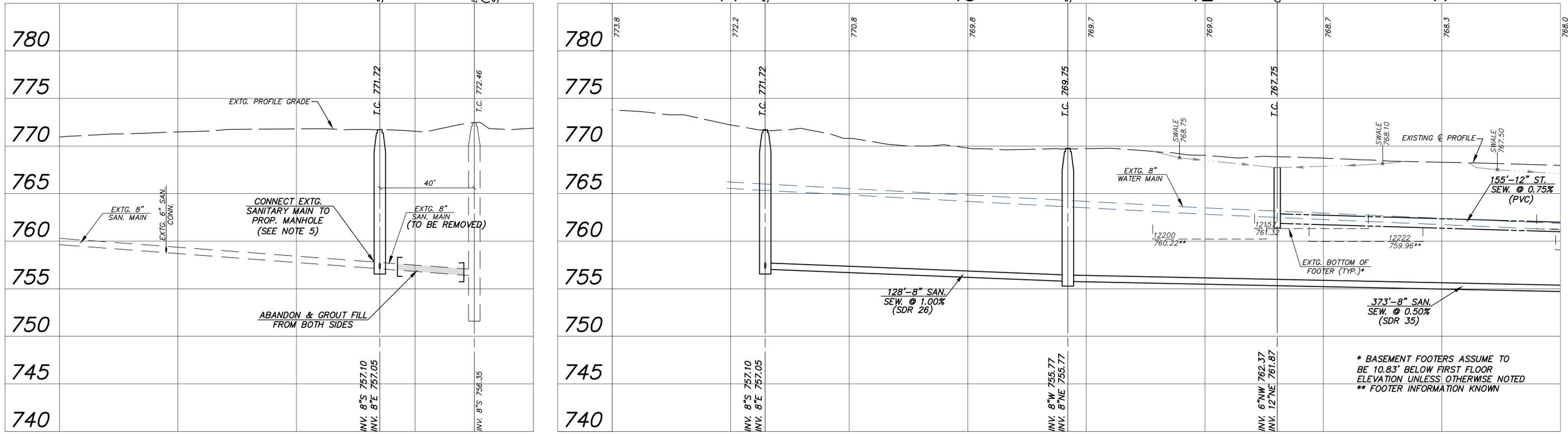
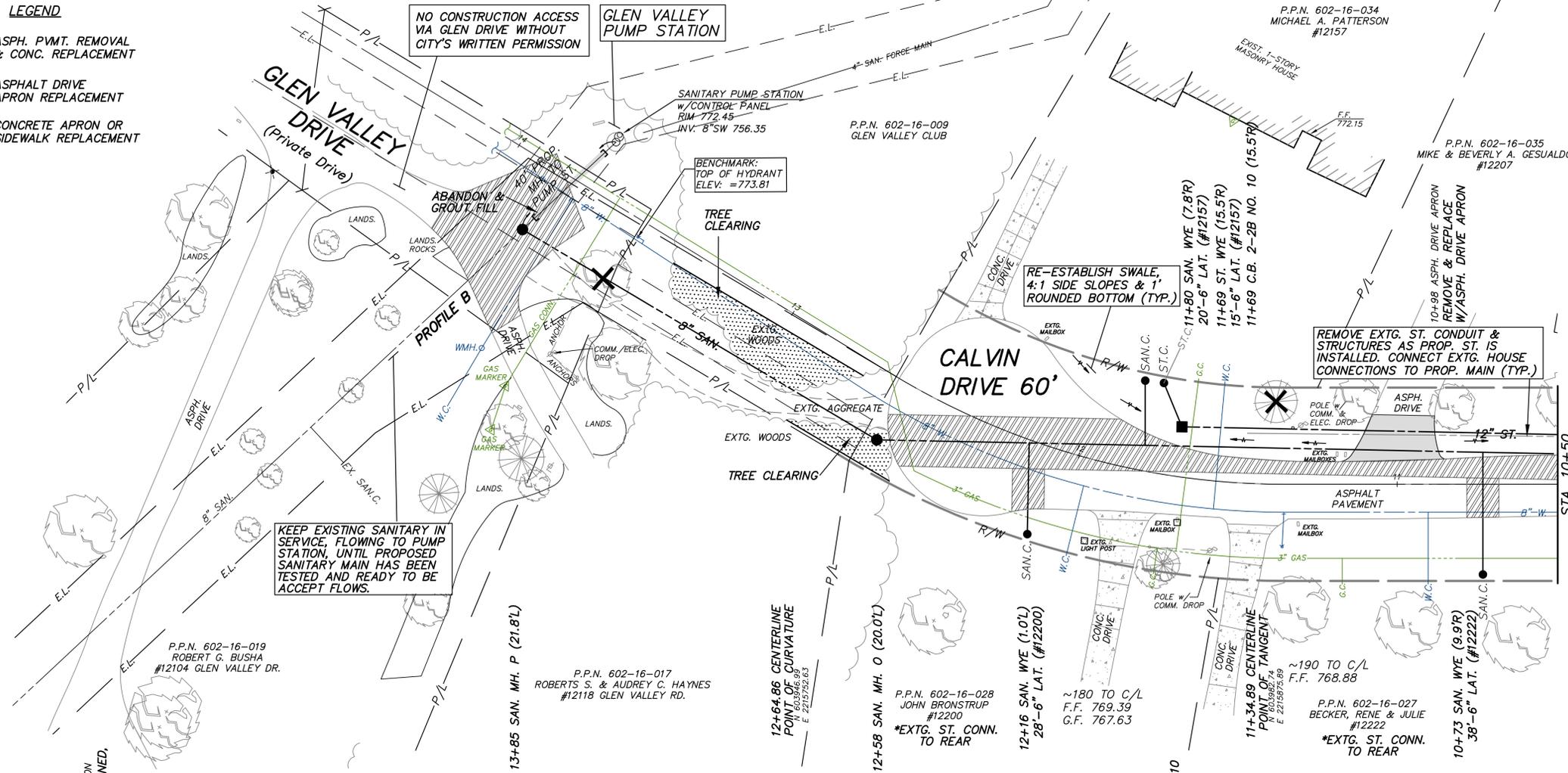


**NOTES:**

- STORM LATERALS ARE DEPICTED BASED ON BEST AVAILABLE RECORDS, BUT ARE SUBJECT TO CHANGE PENDING ACTUAL FIELD DETERMINED LOCATIONS. AS UNCOVERED, ALL STORM LATERALS ARE TO BE IMMEDIATELY CONNECTED TO THE NEW STORM SEWER SO THEY ARE OPERATIONAL. INTERIM REPAIRS MAY BE REQUIRED BASED ON THE CONTRACTORS METHODS. ALL INTERIM REPAIRS ARE TO BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS OTHER ITEMS.
- ALONG CHIPPEWA ROAD ALL LONG/SOUTH-SIDE CONNECTIONS ARE TO BE BORED UNDER THE EAST BOUND LANE NOT TO INTERFERE WITH TRAFFIC. ALL BORE PITS SHALL BE ON THE NORTH SIDE AND ONLY RECEIVING PITS CAN BE EXCAVATED ON SOUTH-SIDE. ALL BORING MATERIAL SHALL COMPLY WITH PLAN DETAILS.
- EXISTING STORM SEWERS ARE BEING REPLACED AS PART OF THIS PROJECT. EXISTING SEWERS SHALL BE REMOVED AND/OR ABANDONED AS DESIGNATED. ALL REMOVAL AND ABANDONMENT SHALL BE DONE IN A MANNER THAT LEAVES THE SEWER INTACT AND FUNCTIONAL UNTIL ALL LATERALS HAVE BEEN RECONNECTED TO A NEW SEWER SYSTEM. ALL COST SHALL BE INCLUDED IN THE VARIOUS BID ITEMS.
- AS PART OF THE PROJECT, THE CONTRACTOR IS TO DECOMMISSION AND ABANDON THE GLEN VALLEY PUMP STATION. THIS WORK CAN NOT PROCEED UNTIL AFTER THE SANITARY SEWER IS TESTED AND ACCEPTED BY THE CITY AND COUNTY. ONCE THE SEWER IS ACCEPTED, THE CONTRACTOR WILL BE PERMITTED TO INSTALL THE MANHOLE ON THE GLEN VALLEY SANITARY SEWER INTERCEPTING ALL FLOW TO THE PUMP STATION.  
 ONCE FLOW HAS BEEN RE-ROUTED, THE CONTRACTOR CAN PROCEED WITH THE DECOMMISSIONING/ABANDONMENT OF THE PUMP STATION AS FOLLOWS:
  - COORDINATE TO HAVE POWER TERMINATED TO THE PUMP STATION AT THE METER AND AT THE TRANSFORMER POWER-POLE FEEDING THE METER. ALL COORDINATION WILL BE BY THE CONTRACTOR AND THE CITY/COUNTY WILL ASSIST AS NEEDED IN PROVIDING AUTHORIZATION BY EITHER ENTITY AS NEEDED BY THE UTILITY COMPANY.
  - THE EXISTING WET WELL SHALL HAVE ANY REMAINING WASTE MATERIAL AND/OR SLUDGE REMOVED AND DISPOSED OF IN AN APPROPRIATE AND LEGAL MANNER. DOCUMENTATION OF THE FACILITY RECEIVING THIS WASTE MATERIAL SHALL BE PROVIDED TO THE CITY FOR THEIR RECORDS.
  - COORDINATE WITH THE COUNTY TO DETERMINE WHAT EQUIPMENT IS TO BE SALVAGED. SUCH EQUIPMENT SHALL BE CAREFULLY REMOVED AND TURNED OVER TO THE COUNTY.
  - REMOVE ALL REMAINING ABOVE GRADE AND BELOW GRADE EQUIPMENT AND DISPOSE OF IT OFF SITE.
  - AS PER PLAN CALLS, ABANDON AND GROUT FILL THE 8" INLET LINE TO THE PUMP STATION
  - AS PER PLAN CALLS, ABANDON THE 3" FORCEMAIN.
  - REMOVE THE PRECAST TOP AND FIRST RISER SECTION TO AN ELEVATION 4' TO 5' BELOW GRADE.
  - BACKFILL THE WET WELL WITH LSM TO AN ELEVATION WITHIN 6" OF FINISHED GRADE.
  - RESTORE ALL AREAS DISTURBED BY CONSTRUCTION AS PER PLAN SPECIFICATION. ALL COST FOR THE DECOMMISSIONING/ABANDONMENT OF THE PUMP STATION SHALL BE INCLUDED IN THE UNIT PRICE BID.
- PER NOTE 4, CONNECTION OF GLEN VALLEY SANITARY SYSTEM CANNOT OCCUR UNTIL AFTER CALVIN DRIVE AND CHIPPEWA ROAD SEWERS HAVE BEEN TESTED AND ACCEPTED BY THE CITY AND COUNTY.

**LEGEND**

- ASPH. PVMT. REMOVAL & CONC. REPLACEMENT
- ASPHALT DRIVE APRON REPLACEMENT
- CONCRETE APRON OR SIDEWALK REPLACEMENT



PROFILE B

CALVIN DRIVE



**PLAN AND PROFILE  
STA. 0+00 TO STA. 7+00  
CHIPPEWA RD. & CALVIN DR. SANITARY  
CITY OF BRECKSVILLE  
CUYAHOGA COUNTY, OHIO**

---

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 www.dgbonline.com

---

HORIZ. SCALE: 1"=20'  
 VERT. SCALE: 1"=5'  
 DRN. E.W. Ckd. G.W.  
 DATE: FEB, 2022  
 ORDER NO.: 3810-289-E

14  
20

GENERAL

SCOPE OF WORK

THESE IMPROVEMENTS INCLUDE THE INSTALLATION OF A SANITARY AND STORM SEWER, APPURTENANCES, AND PAVEMENT REPAIR AS DEPICTED IN THE PLANS. ALL WORK SHALL BE PERFORMED IN A MANNER TO SAFEGUARD THE ADJACENT RESIDENTS AND THE PUBLIC USING THE LOCAL ROADWAYS. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE IMMEDIATELY RESTORED UPON COMPLETION.

GEO-TECHNICAL/ENGINEERING REPORT

A GEO-TECHNICAL/ENGINEERING REPORT HAS BEEN PERFORMED AND INCLUDED IN THE CONTRACT. THE CONTRACTOR IS TO TOTALLY FAMILIARIZE HIMSELF WITH THIS REPORT PRIOR TO SUBMITTING A BID. ALL RECOMMENDATIONS WITHIN THE REPORT ARE TO BE FOLLOWED THROUGHOUT CONSTRUCTION.

SUBSOIL INVESTIGATION

ALL CONTRACTORS, PRIOR TO SUBMITTING BIDS FOR THESE IMPROVEMENTS WILL BE PERMITTED AND ARE ADVISED TO DIG TEST HOLES WITHIN THE LIMITS OF THIS PROPOSED WORK. ANY EXCAVATION REQUIRED FOR THIS PROJECT WILL BE DEEMED UNCLASSIFIED. UNIT PRICE BIDS SHALL INCLUDE BUT NOT BE LIMITED TO THE REMOVAL AND REPLACEMENT OF ALL ROCK, SHALE OR ORGANIC MATERIALS; DEWATERING; AND SHEETING, CRIBS OR COFFER DAMS AS MAY BE REQUIRED AT NO ADDITIONAL COST TO THE CITY.

AT LEAST 48 HOUR NOTICE MUST BE GIVEN TO THE CITY, AND THE LOCATION OF ALL TEST HOLES IS SUBJECT TO THE APPROVAL OF THE CITY ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM DIGGING THESE HOLES AND HE SHALL RESTORE ALL DISTURBED OR DAMAGED PROPERTY TO A CONDITION SIMILAR OR EQUAL TO THAT EXISTING BEFORE SUCH DIGGING WAS DONE.

CONSTRUCTION AND MATERIAL SPECIFICATIONS

WHERE IN ANY CASE THE PLANS AND SPECIFICATIONS DO NOT ENTIRELY COVER MATERIALS AND/OR WORKMANSHIP, THE "STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, CONSTRUCTION AND MATERIAL SPECIFICATIONS," LATEST EDITION AND THE COUNTY OF CUYAHOGA, SANITARY ENGINEER UNIFORM STANDARDS FOR SEWERAGE IMPROVEMENTS SHALL APPLY AND BE IN FORCE. THE UNIFORM STANDARDS SHALL GOVERN IN ANY CONFLICTS WITH THE ODOT CMS. THROUGHOUT THE PLANS THE REFERENCE TO SPECIFIC ODOT ITEM NUMBERS ARE INDICATED. MATERIAL AND WORKMANSHIP SHALL ALSO CONFORM TO THE CITY OF BRECKSVILLE STANDARDS, RULES, REGULATIONS. WHERE CONFLICTS OCCUR IN THE ABOVE, THE CITY OF BRECKSVILLE ENGINEER SHALL DETERMINE THE GOVERNING AUTHORITY. ANY DEFECTS IN THE CONSTRUCTION INCLUDING MATERIALS OR WORKMANSHIP SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE CITY ENGINEER. REFERENCES THROUGHOUT THESE PLANS TO "THE ENGINEER" SHALL BE THE ENGINEER OF THE CITY OF BRECKSVILLE.

ELEVATION DATUM

ALL ELEVATIONS SHOWN ON THESE PLANS ARE IN FEET ABOVE THE "U.S.G.S." DATUM PLANE.

UTILITIES

THE FOLLOWING IS BELIEVED TO BE THE LIST OF UTILITY OWNERS WITHIN THE LIMITS OF CONSTRUCTION:

CITY OF BRECKSVILLE
9069 BRECKSVILLE ROAD
BRECKSVILLE, OHIO 44141
PHONE: (440) 526-4351
DOMINION EAST OHIO GAS COMPANY
1201 E 55TH STREET
CLEVELAND, OHIO 44103
PHONE: (216) 432-3232

CLEVELAND WATER DEPARTMENT
DIVISION OF DISTRIBUTION AND MAINTENANCE
4600 HARVARD AVENUE
NEWBURGH HEIGHTS, OHIO 44105
PHONE: (216) 348-7277
THE ILLUMINATING COMPANY
6896 MILLER ROAD
BRECKSVILLE, OHIO 44141
PHONE: (440) 546-8748

ENGINEERING / PERMITS AND SALES
1201 LAKESIDE AVENUE
CLEVELAND, OHIO 44114
PHONE: (216) 664-2444
SPECTRUM / CHARTER COMM.
5520 WHIPPLE AVENUE, NW
NORTH CANTON, OHIO 44720
PHONE: (330) 630-6423

CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS
CUYAHOGA COUNTY ADMINISTRATIVE HEADQUARTERS
2079 E. 9TH STREET, 5TH FLOOR
CLEVELAND, OHIO 44115
PHONE: (216) 443-8205
CONTACT: LAURA WEBER
AT&T
13630 LORAIN AVENUE
4TH FLOOR
CLEVELAND, OHIO 44111
PHONE: (216) 476-6142

CUYAHOGA COUNTY PERMITS
AND INSPECTIONS DEPARTMENT
2501 HARVARD AVENUE
NEWBURGH HEIGHTS, OHIO 44105
PHONE: (216) 443-8209
CONTACT: JUSTIN PATRONITE

ANY AND ALL WORK REQUIRED FOR REMOVAL, RELOCATION AND/OR NEW CONSTRUCTION FACILITIES FOR PRIVATE OR PUBLIC UTILITIES WILL BE DONE BY AND AT THE EXPENSE OF THE RESPECTIVE OWNERS UNLESS OTHERWISE NOTED ON THE PLANS. THE PROCEDURE AS OUTLINED IN THE OHIO REVISED CODE SECTION 153.64, REGARDING UTILITY IDENTIFICATION SHALL BE FOLLOWED. NAMELY, THE OWNER WILL NOTIFY THE OWNERS OF UNDERGROUND UTILITY FACILITIES OF THE IMPENDING PROJECT. THE CONTRACTOR MUST NOTIFY THE UNDERGROUND UTILITY PROTECTION SERVICE AND THE INDIVIDUAL UTILITY TWO (2) WORKING DAYS PRIOR TO COMMENCING WORK. THE UNDERGROUND UTILITY OWNER MUST STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF ITS FACILITY. THE LOCATIONS OF UNDERGROUND UTILITIES SHOWN ON THESE PLANS HAVE BEEN OBTAINED BY DILIGENT FIELD CHECKS AND SEARCHES OF AVAILABLE RECORDS.

STATIONING AND LOCATIONS

STATIONING AND LOCATIONS INDICATED ON THESE PLANS ARE APPROXIMATE. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD "AS DIRECTED BY THE ENGINEER."

PRE-CONSTRUCTION CONFERENCE

AT LEAST FIVE DAYS PRIOR TO THE START OF ACTUAL CONSTRUCTION WORK, A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD AT THE DIRECTION OF THE CITY OF BRECKSVILLE ENGINEER AND APPROPRIATE CITY OFFICIALS. THE CONTRACTOR OR HIS AUTHORIZED SUPERINTENDENT SHALL BE PRESENT, ALONG WITH ANY AND ALL PRIVATE UTILITY COMPANY REPRESENTATIVES AS DEEMED NECESSARY BY AND ARRANGED BY THE CONTRACTOR. THIS MEETING WILL BE FOR COORDINATION AND PROCEDURE REVIEW PRIOR TO COMMENCING ANY PHYSICAL WORK.

INSPECTION

THE CITY OF BRECKSVILLE, THROUGH THE CITY ENGINEER, WILL PROVIDE AND PAY FOR FULL TIME CONSTRUCTION INSPECTION. THE COST OF ALL OTHER REQUIRED UTILITY INSPECTION (I.E. CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS, ETC.), PERMITS, OR TESTS SHALL BE PAID BY THE CONTRACTOR AND INCLUDED IN THE UNIT PRICE BID FOR "INSPECTION, PERMITS & TESTING FEES", UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL NOT COMMENCE WITH ANY FORM OF CONSTRUCTION WITHOUT GIVING TWO (2) WORKING DAYS NOTICE TO THE ENGINEER OF THE CITY OF BRECKSVILLE AND THE CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS TO ARRANGE FOR INSPECTION. IF ANY CHANGE IN THE WORK SCHEDULE BECOMES NECESSARY, IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE INSPECTOR TO AVOID UNNECESSARY INSPECTION COSTS. IF NO NOTIFICATION IS MADE IN REGARDS TO CANCELLATION OF WORK, THE CONTRACTOR WILL BE CHARGED FOR THE INSPECTION TIME INCURRED.

CONSTRUCTION LAYOUT AND AS-BUILTS

ONE-TIME CONSTRUCTION LAYOUT STAKING AS DEEMED NECESSARY BY THE ENGINEER TO COMPLETE THE PROJECT ACCORDING TO THE PLANS AND SPECIFICATIONS SHALL BE PROVIDED AS PART OF A SEPARATE CONTRACT BETWEEN THE ENGINEER AND THE CITY OF BRECKSVILLE. ANY RE-STAKING OR ADDITIONAL STAKING REQUIRED WILL BE PROVIDED UPON REQUEST BY THE CONTRACTOR AND INVOICED DIRECTLY TO THE CONTRACTOR.

AS-BUILTS SHALL BE PROVIDED AS PART OF A SEPARATE CONTRACT BETWEEN THE ENGINEER AND THE CITY OF BRECKSVILLE. THE CONTRACTOR SHALL COORDINATE NOTIFYING THE CITY ENGINEER SO THAT AS-BUILT MEASUREMENTS CAN BE OBTAINED.

WORKING HOURS

WORK ON THE PROJECT MAY TAKE PLACE FROM MONDAY THROUGH FRIDAY BETWEEN THE HOURS OF 7:00 A.M. AND 5:00 P.M.. NO WORK SHALL BE PERMITTED ON SATURDAYS, SUNDAYS OR HOLIDAYS UNLESS PRIOR WRITTEN PERMISSION IS OBTAINED FROM THE CITY ENGINEER. CONTRACTOR SHALL REIMBURSE THE CITY FOR ALL OVERTIME INCURRED BY CITY EMPLOYEES AND/OR CONSULTANTS.

STREET OPENING PERMITS

THE CONTRACTOR WILL BE RESPONSIBLE TO SECURE ALL NECESSARY STREET OPENING PERMITS FROM THE CITY OF BRECKSVILLE. THESE PERMITS WILL REQUIRE A "CONTRACTOR REGISTRATION" FEE OF \$75.00. "STREET OPENING" PERMIT(S) FEE(S) WILL BE WAIVED.

VIDEO TAPING OF EXISTING CONDITIONS

A PRE-CONSTRUCTION VIDEO SHALL BE PERFORMED AND SUBMITTED TO THE CITY PRIOR TO THE DELIVERY OF ANY MATERIALS OR THE START OF ANY CONSTRUCTION ACTIVITY. THE VIDEO SHALL CLEARLY SHOW THE EXISTING CONDITIONS WITHIN THE PROJECT LIMITS INCLUDING TO A POINT 25' PAST SUCH LIMITS. THE VIDEO SHALL BE DVD FORMAT AND INCLUDE A THOROUGH NARRATIVE DESCRIPTION OF ALL ITEMS WITHIN THE CONSTRUCTION LIMITS AND ALONG THE ACCESS AREAS.

THE VIDEO TAPING SHALL BE ACCOMPANIED BY A REPRESENTATIVE OF THE CITY AND A COPY SHALL BE PROVIDED TO THE CITY OF BRECKSVILLE ENGINEER. UPON COMPLETION OF THE PROJECT, ANYTHING FOUND DAMAGED AND NOT INCLUDED IN THE PRE-CONSTRUCTION VIDEO WILL BE CONSIDERED THE CONTRACTORS RESPONSIBILITY AND SHALL BE REPLACED OR REPAIRED AT HIS OWN EXPENSE.

THE COSTS FOR THESE ITEMS SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICES FOR "VIDEO TAPING EXISTING CONDITIONS".

CONSTRUCTION ACCESS AND STAGING

CONSTRUCTION ACCESS AND STAGING SHALL BE APPROVED BY THE CITY ENGINEER PRIOR TO COMMENCEMENT OF THE PROJECT. CONSTRUCTION STAGING SHALL BE LIMITED TO THE ROADWAY ALONG THE NORTH SIDE OF CHIPPEWA ROAD, THE WEST SIDE OF CALVIN DRIVE OR THE EASEMENT AREAS.

NO CONSTRUCTION ACCESS SHALL BE MADE VIA GLEN VALLEY DRIVE WITHOUT CITY OF BRECKSVILLE WRITTEN PERMISSION.

THE CONTRACTOR, AS HE DEEMS APPROPRIATE, IS RESPONSIBLE TO IMPLEMENT ALL NECESSARY PRECAUTIONS SO NOT TO DAMAGE ROADWAY AND DRIVEWAY PAVEMENTS IN ANY WAY. SUCH PRECAUTIONS MAY INCLUDE, BUT ARE NOT LIMITED TO, SHEETING OR PLATING THE PAVEMENT SURFACES, IMPLEMENTING LOAD LIMITATIONS AND/OR EQUIPMENT LIMITATIONS, ETC.

PARKING OF VEHICLES & CONSTRUCTION EQUIPMENT, AND STORAGE OF MATERIALS SHALL BE LIMITED TO THE STAGING AREA. DAMAGE TO GUARDRAIL, AGGREGATE BERM, CASTINGS, MONUMENTS, VEGETATED SLOPES, LAWNS, ETC. SHALL BE REPAIRED OR REPLACED.

ANY DAMAGE TO THE ROADWAY AND DRIVEWAYS, OUTSIDE AND WITHIN THE PROJECT LIMITS, RESULTING FROM THIS PROJECT CONSTRUCTION, AS DETERMINED BY THE CITY ENGINEER, SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE AND RESPONSIBILITY. REPAIR PAVEMENTS BY SAW CUTTING AND REMOVING ALL DAMAGED PAVEMENT AND REPLACING PER THE PLAN SPECIFICATIONS AND 'PAVEMENT OPENING, REMOVAL & REPLACEMENT DETAIL'.

THE CONTRACTOR SHALL COORDINATE WITH THE HOMEOWNERS TO MAINTAIN SAFE ACCESS TO AND FROM THEIR HOMES THROUGHOUT CONSTRUCTION.

ALL COSTS INCURRED BY THE CONTRACTOR IN REFERENCE TO CONSTRUCTION ACCESS AND STAGING SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS OTHER BID ITEMS AND NO ADDITIONAL PAYMENT WILL BE DUE TO THE CONTRACTOR.

MAINTAINING TRAFFIC

THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, LIGHTING, FLAGGERS, TEMPORARY SIGNAGE, HEAVY STEEL PLATES, TEMPORARY GUARDRAIL, AND SUCH OTHER TRAFFIC CONTROL DEVICES AS PROVIDED IN ODOT ITEM 614 "MAINTAINING TRAFFIC" SO AS TO AVOID DAMAGE AND/OR INJURY TO VEHICLES AND PERSONS USING THE ROADWAY DURING CONSTRUCTION. THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ABUTTING PROPERTY.

ALL CONSTRUCTION TRAFFIC CONTROL DEVICES USED FOR THIS PROJECT SHALL CONFORM TO THE LATEST EDITION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS AND SHALL BE PROVIDED, ERECTED, MAINTAINED, AND REMOVED BY THE CONTRACTOR PER THE MANUAL. ALL AREAS OF PAVEMENT REMOVAL WHICH HAVE NOT BEEN FULLY RESTORED SHALL BE PROTECTED WITH FLASHING BARRICADES OR DRUMS WITH STEADY BURNING LIGHTS AT NIGHT, AND DURING THE DAYLIGHT. PAYMENT FOR LABOR, MATERIAL, AND EQUIPMENT REQUIRED FOR CONSTRUCTION, MAINTENANCE AND SUBSEQUENT REMOVAL WHEREVER OF APPROACHES, BYPASSES, CROSSEOVERS, BARRICADES, LIGHTS, SIGNS, AND SIGN SUPPORTS, SHALL BE INCLUDED THE LUMP SUM PRICE FOR "MAINTAINING TRAFFIC".

ALONG CHIPPEWA ROAD (S.R. 82) THE CONTRACTOR WILL BE PERMITTED TO CLOSE LIMITED SEGMENTS OF THE WEST BOUND LANE WHILE MAINTAINING TWO-WAY TRAFFIC IN THE EASTBOUND LANE WITH THE USE OF TEMPORARY TRAFFIC SIGNALS. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT A MOT PLAN FOR CITY REVIEW AND APPROVAL PRIOR TO THE START OF CONSTRUCTION AND NO ZONE SHALL EXCEED A CLOSURE LENGTH LONGER THAN 1,000'. THE CITY HAS THE RIGHT TO REVIEW AND ALTER THE VARIOUS ZONES PENDING THE REVIEW OF THE CITY SAFETY DIRECTOR AND THE POLICE DEPARTMENT. ALONG CHIPPEWA ROAD, MOTORIST UTILIZING THE ROADWAY MUST STAY ON A PAVED SURFACE; THEREFORE, THE CONTRACTOR MUST COMPLETELY RESTORE THE PAVEMENT PRIOR TO MOBILIZING TO THE NEXT ZONE.

ALONG CALVIN DRIVE, THE CONTRACTOR CAN CLOSE THE ROAD TO LIMIT TRAFFIC TO LOCAL TRAFFIC ONLY. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN 2-WAY TRAFFIC VIA ONE LANE AT ALL TIMES, BUT DUE TO THE LESSER TRAFFIC VOLUME AND SPEED THE CONTRACTOR MAY MAINTAIN THE ROAD WITH AGGREGATE UNTIL THE ROAD IS PAVED.

ACCESS TO ALL RESIDENTIAL DRIVES MUST BE MAINTAINED FOR ALL DRIVES THROUGHOUT THE PROJECT WITH THE EXCEPTION WHEN PHYSICALLY CROSSING THE DRIVE DURING SEWER INSTALLATION AND REPLACING THE DRIVE APRON. IT IS THE CONTRACTOR'S RESPONSIBILITY TO INFORM THE PROPERTY OWNERS WITH LETTERS PRIOR THE CLOSING OF THEIR DRIVEWAYS.

MUD AND DUST CONTROL

THE CONTRACTOR SHALL SUPPLY ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY, SUCH AS CALCIUM CHLORIDE, WATER, OR A MOTORIZED JUST-FREE STREET SWEEPING DEVICE, AS DIRECTED BY THE ENGINEER, TO MAINTAIN ALL ROADWAYS BEING USED FOR ACCESS TO THE CONSTRUCTION SITE. PAYMENT FOR ALL MUD AND DUST CONTROL MEASURES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR OTHER VARIOUS ITEMS.

MAINTENANCE OF EXISTING SEWER SYSTEMS

PRIOR TO ANY CONNECTION INTO AN EXISTING SEWER MANHOLE OR CONDUIT THE CONTRACTOR SHALL TAKE SUCH MEASURES AS NECESSARY, "AS APPROVED BY THE ENGINEER", (I.E. TEMPORARY PLUGS, SAND BAGS, ETC.) DURING THE COURSE OF THE CONSTRUCTION OF THE PROPOSED SEWERS, TO GUARD AGAINST ANY DRAINAGE FROM ENTERING THE EXISTING SYSTEM AND POSSIBLY CONTAMINATING SUCH SYSTEM WITH SILT. ALL WORK AND MATERIALS NECESSARY TO GUARANTEE THIS CONDITION SHALL BE INCLUDED IN THE ITEMIZED UNIT PRICE FOR THE VARIOUS SEWER CONDUITS.

UTILITY ALLOWANCE AND COORDINATION

THE CONTRACTOR IS RESPONSIBLE TO DETERMINE ALL POTENTIAL CONFLICTS AND COORDINATE WITH THE OWNERS OF THE PRIVATE UTILITY COMPANIES TO RELOCATE, ADJUST, TEMPORARILY SUPPORT, AND/OR REPLACE PRIVATE UTILITIES THAT INTERFERE WITH CONSTRUCTION. WHERE INDICATED IN THE PLANS OR REQUIRED DUE TO THE CONTRACTORS METHOD OF OPERATION, THE CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL WORK WITH THE PRIVATE UTILITY COMPANIES AT NO ADDITIONAL COST OR DELAY TO THE CITY, THE FOLLOWING ESTIMATED ALLOWANCE IS INCLUDED IN THE CONTRACT FOR USE "AS DIRECTED BY THE ENGINEER":

ITEM SPECIAL UTILITY ALLOWANCE \$20,000.00

THE CONTRACTOR IS RESPONSIBLE FOR ALL PAYMENT TO THE UTILITY COMPANIES AND WILL ONLY BE REIMBURSED BY THE CITY UPON SUBMITTAL OF INVOICES FROM THE RESPECTIVE PRIVATE UTILITY COMPANIES. ALL COSTS INCURRED BY THE CONTRACTOR IN REFERENCE TO PRIVATE UTILITY COORDINATION SHALL BE INCLUDED IN THE PRICE BID FOR VARIOUS OTHER BID ITEMS AND NO ADDITIONAL PAYMENT WILL BE DUE TO THE CONTRACTOR.

PRECAUTION AGAINST UTILITY DAMAGE

THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE PROJECT, TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITY LINES DURING THE INSTALLATION OF THE PROPOSED IMPROVEMENTS. IT MAY BE NECESSARY TO CHANGE THE ALIGNMENT OR THE FLOW LINE ELEVATION OF PROPOSED SEWERS DUE TO VARIOUS EXISTING UTILITY MAINS. IT MAY ALSO BE NECESSARY TO ADJUST EXISTING SERVICE CONNECTION LATERALS FROM THE LINE OF FLOW OF THE PROPOSED SEWERS. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE SCHEDULE OF QUANTITIES FOR THE USE OF THE SERVICE LATERALS "AS DIRECTED BY THE ENGINEER":

ITEM SPECIAL 1" WATER SERVICE CONNECTION RELOCATED FOR GRADE 20 EA.
ITEM SPECIAL GAS SERVICE CONNECTION RELOCATED FOR GRADE 20 EA.

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER AND APPROPRIATE UTILITY AUTHORITY ABOUT THE NEED TO CHANGE THE DESIGN OR MOVE A CONNECTION. THE CONTRACTOR SHALL NOT PROCEED WITH CONSTRUCTION WITHOUT RECEIVING WRITTEN APPROVAL AUTHORIZING A DESIGN CHANGE OR RELOCATING A CONNECTION.

THE CONTRACTOR SHALL MAKE INVESTIGATIONS TO DETERMINE THE LOCATION OF EXISTING UTILITY LINES PRIOR TO THE INSTALLATION OF THE PROPOSED IMPROVEMENTS. SUCH INVESTIGATIONS SHALL BE AT NO ADDITIONAL COST TO THE PROJECT.

CLEARING AND GRUBBING

ANY TREES, STUMPS, SHRUBS OR BRUSH WITHIN THE LIMITS OF THIS PROJECT OR THAT INTERFERE WITH THE CONSTRUCTION SHALL BE DESIGNATED BY THE CONTRACTOR AND APPROVED BY THE CITY PRIOR TO REMOVAL FROM THE SITE BY THE CONTRACTOR PER ODOT 201. ANY OVERHANGING LIMBS OR BRANCHES FROM TREES AND/OR BUSHES THAT INTERFERE WITH CONSTRUCTION SHALL BE NEATLY TRIMMED UNDER THE INSPECTION AND APPROVAL OF THE CITY ARBORIST. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE SITE AT THE CONTRACTORS EXPENSE AND RESPONSIBILITY. PAYMENT FOR THE ABOVE WORK SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR "CLEARING AND GRUBBING".

UNDERGROUND INSTALLATION

THE UNIT PRICE BID FOR THE VARIOUS UNDERGROUND INSTALLATION ITEMS SHALL INCLUDE, BUT NOT BE LIMITED TO, ALL EXCAVATION, MATERIAL, LABOR, BEDDING, BACKFILL, COMPACTION, EQUIPMENT, UTILITY PROTECTION, MAINTENANCE OF ROADWAYS AND DRIVES UNTIL FINAL REPLACEMENT, CONSTRUCTION AND REMOVAL OF ALL NECESSARY TRENCH PROTECTION AND ALL OTHER INCIDENTAL ITEMS NECESSARY TO INSTALL SUCH UTILITY. THE CONTRACTOR IS TO TOTALLY FAMILIARIZE HIMSELF WITH THE GROUND CONDITIONS THAT NOW DO OR MAY EXIST DURING THE CONSTRUCTION SO AS NOT TO ADVERSELY AFFECT THE INTEGRITY OF ANY UTILITY INSTALLATION OR STRUCTURE ON THE CONSTRUCTION SITE OR ADJACENT PROPERTIES.

ALL SANITARY SEWER CONSTRUCTION SHALL CONFORM WITH UNIFORM STANDARDS FOR SEWERAGE IMPROVEMENTS, CUYAHOGA COUNTY SANITARY ENGINEERING DIVISION, AND SHALL BE INSTALLED ON A FIRM BEDDING FOR ITS FULL LENGTH.

ANY UNSUITABLE MATERIAL, MATERIAL NOT APPROVED BY THE ENGINEER FOR BACKFILL AND MATERIAL IN EXCESS OF THAT REQUIRED FOR BACKFILLING SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-SITE, SUCH COST TO BE INCLUDED IN THE ITEMIZED UNIT PRICE FOR THE VARIOUS SEWER CONDUITS.

IF UTILIZED, THE CONTRACTOR'S METHOD OF DEWATERING, ASSOCIATED SILTATION CONTROL, AND DISPOSAL OF SUCH WATER SHALL BE SUBMITTED TO THE ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION FOR APPROVAL. ABATEMENT OF NOISE SHALL BE TAKEN INTO CONSIDERATION DURING NON-DAYLIGHT WORKING HOURS TO MINIMIZE DISTURBANCE TO THE LOCAL RESIDENTS.

TRENCH PROTECTION

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT ANY CAVING OR SETTLING OF EXCAVATION OR TRENCH WALLS WHICH COULD ENDANGER THE SAFETY OF ANY PERSON ENGAGED IN THE WORK OR THE PUBLIC OR IN ANY WAY DAMAGE THE UNDERGROUND INSTALLATIONS OF ADJACENT UTILITIES, ROADWAY OR PROPERTY, OR DIMINISH THE TRENCH WIDTH NECESSARY FOR THE PROPER CONSTRUCTION OF THE UNDERGROUND INSTALLATION OR OTHERWISE INJURE OR DELAY THE WORK. THE TYPE AND AMOUNT OF SUCH PROTECTION, SUCH AS TRENCH BOXES, SHEETING, SHORING, OR BRACING SHALL BE CONSISTENT WITH THE DEPTH AND WIDTH OF EXCAVATION, THE COMPOSITION AND WATER CONTENT OF THE SOIL, THE PROXIMITY OF STRUCTURES OR OTHER UTILITIES, THE VIBRATION FROM EQUIPMENT AND THE SPOIL PLACEMENT, AND SHALL BE IN ACCORDANCE WITH THE LATEST OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS.

IN ORDER TO REDUCE GROUND WATER SEEPAGE AND PROVIDE A STABLE TRENCH BOTTOM IT MAY BE NECESSARY TO DEWATER PRIOR TO EXCAVATION OF THE SEWER TRENCH AND/OR PROVIDE TEMPORARY DUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ADJACENT STRUCTURES, PAVEMENTS, OR UTILITIES, OR LOSS OF PRIVATE WELL WATER RESULTING FROM DEWATERING, LOSS OF GROUND, HEAVE, TRENCH CONSTRUCTION, OR ANY OTHER CONSTRUCTION METHODS. THE CONTRACTOR SHALL PROTECT ALL EXISTING SEWERS AND UTILITIES THAT THE PROPOSED INSTALLATION CROSSES BY COMPACTING THE BACKFILL UNDER SUCH EXISTING FACILITY OR SHALL PROTECT THE EXISTING FACILITY IN A MANNER AS APPROVED BY THE ENGINEER. IF SHEETING IS USED, IT MAY BE NECESSARY TO DRIVE THE SHEETING SEVERAL FEET BELOW THE BOTTOM OF THE PIPE. WHEN USING MOVABLE TRENCH SUPPORTS OR SHEETING, CARE SHALL BE EXERCISED SO AS NOT TO DISTURB THE PIPE LOCATION, JOINTING, OR BEDDING MATERIAL. IF STEEL PILE SHEETING IS USED, IT SHALL BE HELD IN PLACE BY LONGITUDINAL BEAMS AND CROSS BRACES OR STRUTS AS REQUIRED TO RESTRAIN THE TOP OF THE SHEETING. IF TIMBER SHEETING AND BRACING IS USED, IT MUST BE OF GOOD QUALITY AND OF HARDWOOD CONSTRUCTION. AFTER THE PIPE HAS BEEN INSTALLED AND THE BALANCE OF THE BEDDING MATERIAL HAS BEEN PLACED OVER THE PIPE, THE REMOVAL OF ANY TRENCH PROTECTION SHALL BE CAREFULLY CONTROLLED. THE CONTRACTOR SHALL DEMONSTRATE THAT THE REMOVAL OF THE TRENCH PROTECTION WILL NOT ADVERSELY AFFECT THE PIPE LOCATION AND BEDDING. IF SHEETING CANNOT BE REMOVED WITHOUT ADVERSELY AFFECTING THE PIPE LOCATION, THE ENGINEER MAY ORDER THE SHEETING CUT OFF AT SOME POINT, AT LEAST ONE FOOT ABOVE THE TOP OF THE PIPE AND LEFT IN PLACE AT NO ADDITIONAL COST.

TEMPORARY MAILBOX AND RE-INSTALLATION

EXISTING MAIL BOXES AND PAPER BOXES SHALL BE CAREFULLY REMOVED AND TEMPORARILY RELOCATED TO A LOCATION ACCEPTABLE TO THE UNITED STATES POSTAL SERVICE AND THE CITY ENGINEER. IF THE CONDITION OF THE POST OR SUPPORT DOES NOT ALLOW FOR ITS TEMPORARY REUSE, THE CONTRACTOR SHALL SUPPLY AND INSTALL A NEW POST OR SUPPORT AS DIRECTED BY THE ENGINEER. UPON COMPLETION OF THE WORK ALONG A PROPERTY FRONTAGE, THE EXISTING MAILBOX SHALL BE RE-INSTALLED IN ITS ORIGINAL LOCATION. THE COST OF THE TEMPORARY RELOCATION AND RE-INSTALLATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "TEMPORARY MAILBOX AND RE-INSTALLATION." THE UNIT PRICE BID TO TEMPORARILY RELOCATE AND RE-INSTALL A MAIL BOX AND/OR PAPER BOX SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE SUCH WORK.

SUBBEDDING MATERIAL

THE SUBBEDDING MATERIAL FOR THE SEWERS SHALL BE A SEPARATE PAY ITEM. IN SECTIONS WHERE UNSTABLE SOILS CONSTITUTE THE TRENCH BOTTOM AND FIRM SUPPORT CANNOT BE ESTABLISHED TO CONSTRUCT THE PIPE BEDDING, THE UNSTABLE SOIL SHALL BE UNDERCUT IN DEPTH AS APPROVED BY THE ENGINEER. THIS UNDERCUT AREA IS TO BE BACKFILLED WITH A COMPACTED NUMBER 4 CRUSHED LIMESTONE AGGREGATE, OR OTHER MATERIAL AS APPROVED BY THE ENGINEER, TO A DEPTH OF SIX INCHES BELOW THE BOTTOM OF THE PIPE. THE UNIT PRICE BID FOR SUBBEDDING MATERIAL SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, EXCAVATION AND OFF-SITE DISPOSAL OF UNSUITABLE SOILS, AND INCIDENTAL ITEMS TO COMPLETE THIS WORK. THE USE AND DIRECTION OF THE ENGINEER FOR THIS ITEM DOES NOT REMOVE THE CONTRACTOR'S RESPONSIBILITY FOR THE SAFETY OF HIS LABOR FORCE OR THE INTEGRITY OF SUCH CONDUIT INSTALLATION FOR MEETING ALL TESTING AND INSPECTION REQUIREMENTS. CALCULATIONS OF THE NUMBER OF TONS OF THIS ITEM USED SHALL BE MADE FROM LOAD SLIPS SUPPLIED TO THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY IS INCLUDED IN THE CONTRACT FOR USE "AS DIRECTED BY THE ENGINEER":

ITEM SPECIAL SUBBEDDING MATERIAL 400 TONS

COMPACTED BACKFILL

WHERE THE PROPOSED IMPROVEMENTS CROSS EXISTING OR PROPOSED DRIVEWAY AND ROADWAY PAVEMENTS INCLUDING TO A POINT FIVE (5) FEET BEYOND SUCH CROSSINGS, THE ENTIRE TRENCH BACKFILL SHALL BE PREMIUM FILL USING ODOT ITEM 304 MATERIAL INSTALLED IN 8" LIFTS COMPACTED TO 98% OF THE MAXIMUM LABORATORY DRY DENSITY AT ±2% OF OPTIMUM MOISTURE CONTENT. CRUSHED SLAG, GRANULATED SLAG, OR SLACKER AGGREGATE ARE NOT PERMITTED. CRUSHED CONCRETE MEETING ODOT 304 GRADATION SPECIFICATIONS AS APPROVED BY THE ENGINEER IS ALLOWED. THE ENTIRE COST OF PROVIDING COMPACTED BACKFILL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS ITEMS.

WHERE THE PROPOSED IMPROVEMENTS ARE OUTSIDE THE EXISTING ROADWAY PAVEMENTS AND DRIVEWAYS BUT WITHIN THE PUBLIC RIGHT-OF-WAY, THE ENTIRE TRENCH SHALL BE COMPACTED WITH ON-SITE MATERIAL INSTALLED IN 8" LIFTS COMPACTED PER ODOT 203.07-1.

IN AREAS WHERE AS DEEMED BY THE CITY WHERE COMPACTION CANNOT BE ACHIEVED WITH PREMIUM AND/OR ONSITE FILL, THE CITY RESERVES THE RIGHT TO REQUIRE THE CONTRACTOR TO UTILIZE LOW STRENGTH MORTAR BACKFILL. ALL COST FOR BACKFILL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS ITEMS.

LINE AND GRADE CONTROL

THE LINE AND GRADE OF SEWER MAINS SHALL BE CONTROLLED DURING THE SEWER CONSTRUCTION BY USE OF AN APPROVED LASER DEVICE.

RESTORATION OF DISTURBED AREAS

ALL AREAS WITHIN THE LIMITS OF THIS PROJECT OUTSIDE OF PAVEMENT CONSTRUCTION AND ALL AREAS DISTURBED BY THE CONTRACTOR SHALL BE RE-VEGETATED PER ODOT ITEM 659. SEED MIX SHALL BE CLASS 1 - LAWN MIXTURE, APPLIED AT DOUBLE THE SEED RATE SPECIFIED IN 659.09. ALL NATURAL STONES 1" OR LARGER AND ALL CONSTRUCTION AGGREGATE OR DEBRIS SHALL BE REMOVED FROM THE PLANTING BED AREA PRIOR TO PLACING TOPSOIL. THE CONTRACTOR SHALL FURNISH AND PLACE CLEAN, SIFTED TOPSOIL PER ODOT 653 TO A MINIMUM DEPTH OF 4" OVER ALL AREAS TO BE SEEDED. THIS ITEM INCLUDES ALL TOPSOIL, LIME, FERTILIZERS, SEED, MULCH, WATER, ETC., AND PLACING ALL MATERIALS ON A PREPARED BED PER ODOT 659. THE CONTRACTOR IS REQUIRED TO ESTABLISH A MINIMUM DENSITY OF 80 PERCENT GRASS COVER OF UNIFORM COLOR AND DENSITY TO THE SATISFACTION OF THE ENGINEER. THE PRICE BID FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

BASED ON THE CONTRACTOR'S METHOD OF OPERATION, IT MAY BE NECESSARY FOR THE CONTRACTOR TO IMPLEMENT TEMPORARY SEEDING AND MULCHING. A CONTINGENT QUANTITY HAS BEEN INCLUDED IN THE BID FOR USE AS DIRECTED BY THE CITY. TEMPORARY SEEDING AND MULCHING SHALL BE PER ODOT 659 USING TYPE 7 TEMPORARY SEED MIX. THE PRICE BID FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIAL, TOLLS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

MISCELLANEOUS METAL

EXISTING CASTINGS AS PART OF THIS PROJECT MAY PROVE TO BE UNSUITABLE FOR REUSE, BROKEN, OR MISSING, AS DETERMINED BY THE ENGINEER, DURING THE CONSTRUCTION OF THIS PROJECT. TO PROVIDE FOR THIS CONTINGENCY, AN ESTIMATED QUANTITY OF MISCELLANEOUS METAL HAS BEEN INCLUDED IN THE CONTRACT TO BE USED AS DIRECTED BY THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIALS ARE TO MEET UTILITY OWNERS SPECIFICATIONS AND HAVE THE PRIOR APPROVAL OF THE ENGINEER. WHEN IT IS NECESSARY TO COMPLETELY REPLACE EXISTING MANHOLE CASTINGS, CATCH BASIN FRAME AND/OR LIDS, MONUMENT BOX CASTINGS, OR WATER VALVE BOX CASTINGS THEY SHALL BE REPLACED USING CASTINGS APPROVED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE SCHEDULE OF QUANTITIES FOR USE "AS DIRECTED BY THE ENGINEER":

ITEM SPECIAL MISCELLANEOUS METAL 3000 LBS.

THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTING BY THE CONTRACTOR, AT NO EXPENSE TO THE PROJECT. THE CONTRACTOR SHALL NOT ORDER ANY OF THE ABOVE CASTINGS UNTIL DIRECTED BY THE ENGINEER, AND IN THE EVENT NO REPLACEMENT CASTINGS ARE REQUIRED, THE ITEM SHALL BE NON-PERFORMED.

GAS OR WATER SERVICE STOP BOX OR VALVE BOX ASSEMBLY ADJUSTED TO GRADE

WHERE INDICATED ON THE CONTRACT DRAWINGS, OR WHERE ORDERED, THE CONTRACTOR SHALL RESET EXISTING VALVE BOX, EXISTING CURB SHUT-OFF VALVE BOX, OR EXISTING VAULT/MANHOLE FRAME AND COVER TO ESTABLISHED GRADE BY RAISING OR LOWERING THE EXISTING CASTINGS OR BY EITHER ADDING OR DELETING OR CUTTING THE APPROPRIATE VALVE BOX STEM SECTIONS OR BY ADDING OR REMOVING BRICK RISERS. IN RAISING OF THE CASTINGS, NO INSERTS WILL BE PERMITTED. ANY VALVE BOXES, CURB SHUT-OFF VALVE BOXES AND/OR VAULT/MANHOLE FRAME AND COVER FOUND TO BE DAMAGED OR UNSUITABLE FOR REUSE SHALL BE REPLACED BY THE CONTRACTOR. THE CONTRACTOR SHALL PERFORM ALL WORK NECESSARY AT THE LOCATIONS SHOWN ON THE CONTRACT DRAWINGS OR WHERE ORDERED INCLUDING PAVEMENT CUTTING, PAVEMENT REMOVAL, EXCAVATION, BACKFILLING, SEEDING AND SODDING, AND REPAVING, ALL AS REQUIRED OR AS ORDERED TO COMPLETE THE WORK. AS NEEDED THE CONTRACTOR SHALL EXCAVATE TO THE BASE FLANGE, ADJUST THE FLANGE TO GRADE, AND BACKFILL UNDER THE FLANGE AND THE EXCAVATION WITH CLASS C CONCRETE TO PAVEMENT SUBGRADE. THE PRICE BID FOR THIS ITEM SHALL INCLUDE ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM.

UTILITY COORDINATION AND POLE SUPPORT

BASED ON MEANS AND METHODS, THE CONTRACTOR SHALL REVIEW THE PLANS AND SITE TO DETERMINE THE METHOD OF CONSTRUCTION FOR SAFEGUARDING/SUPPORTING ALL UTILITY POLES AS THEY DEEM NECESSARY. CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY AND OBTAIN ANY REQUIRED PERMITS NECESSARY. ALL COORDINATION IS THE RESPONSIBILITY OF THE CONTRACTOR AND THE CITY SHALL NOT BE RESPONSIBLE FOR ANY DELAYS IN CONSTRUCTION. THE COST FOR COORDINATION AND SUPPORT OF UTILITY POLES THROUGHOUT CONSTRUCTION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VARIOUS ITEMS.

MAILBOX REPLACED

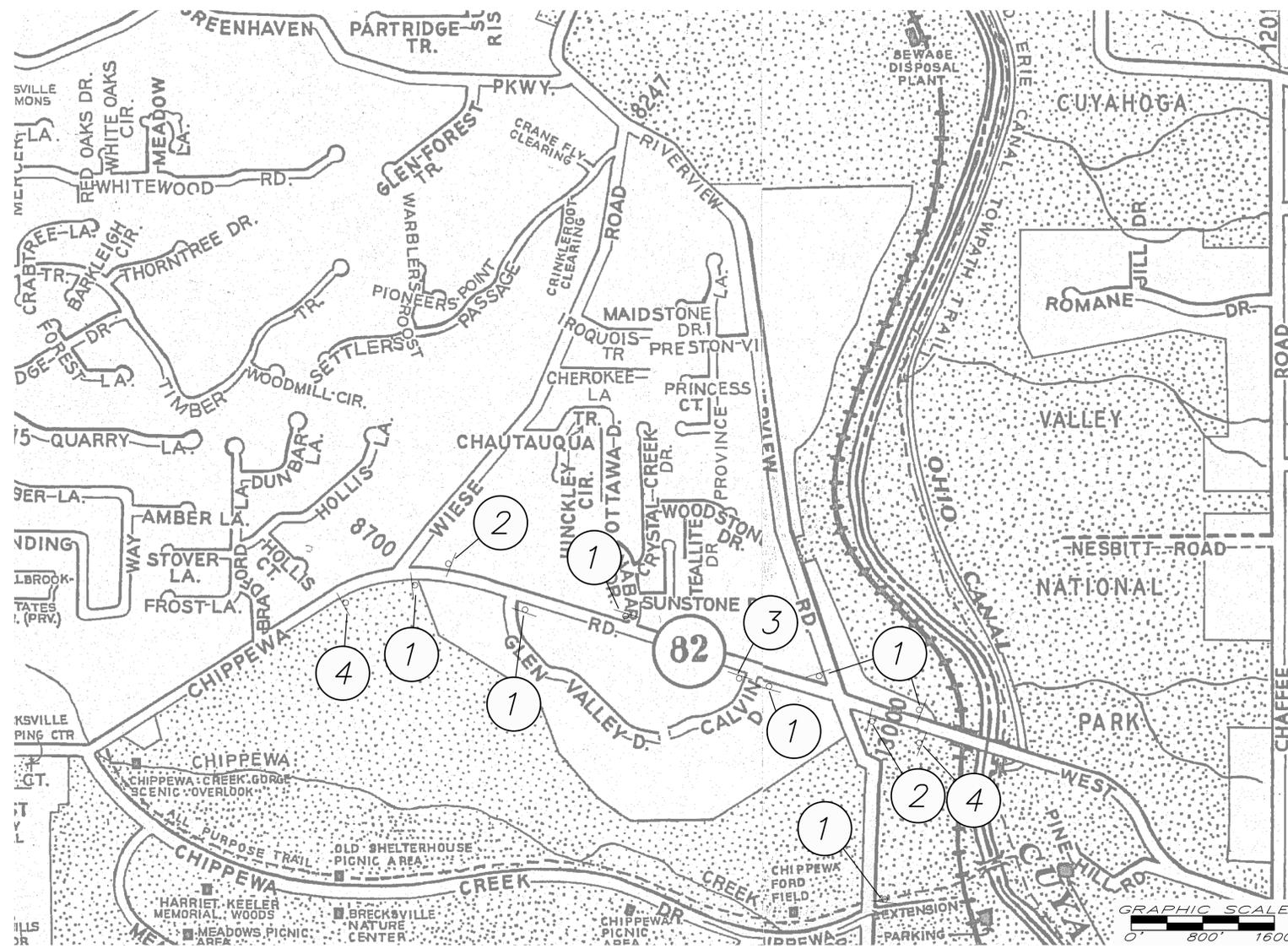
MAIL BOX, PAPER BOX, POSTS AND SUPPORTS SHALL BE REUSED WHERE POSSIBLE. IF AN EXISTING MAILBOX IS DEEMED UNSUITABLE FOR RE-INSTALLATION BY THE CITY ENGINEER, THE CONTRACTOR SHALL INSTALL A NEW MAILBOX AS SPECIFIED:

- STEP 2 MAILMASTER PLUS MAILBOX (BLACK)

ALL COST SHALL BE INCLUDED IN THE UNIT PRICE BID FOR "MAILBOX REPLACEMENT." THE UNIT PRICE BID TO INSTALL A REPLACEMENT MAIL BOX SHALL INCLUDE ALL LABOR, MATERIAL, EQUIPMENT, AND OTHER INCIDENTAL ITEMS NECESSARY TO COMPLETE SUCH WORK.

REVISIONS
GENERAL NOTES
DONALD G. BOHNING & ASSOCIATES, INC.
CIVIL ENGINEERING & SURVEYING
7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125
PHONE: (216) 640-1130 FAX: (216) 642-1132
www.dgbohning.com



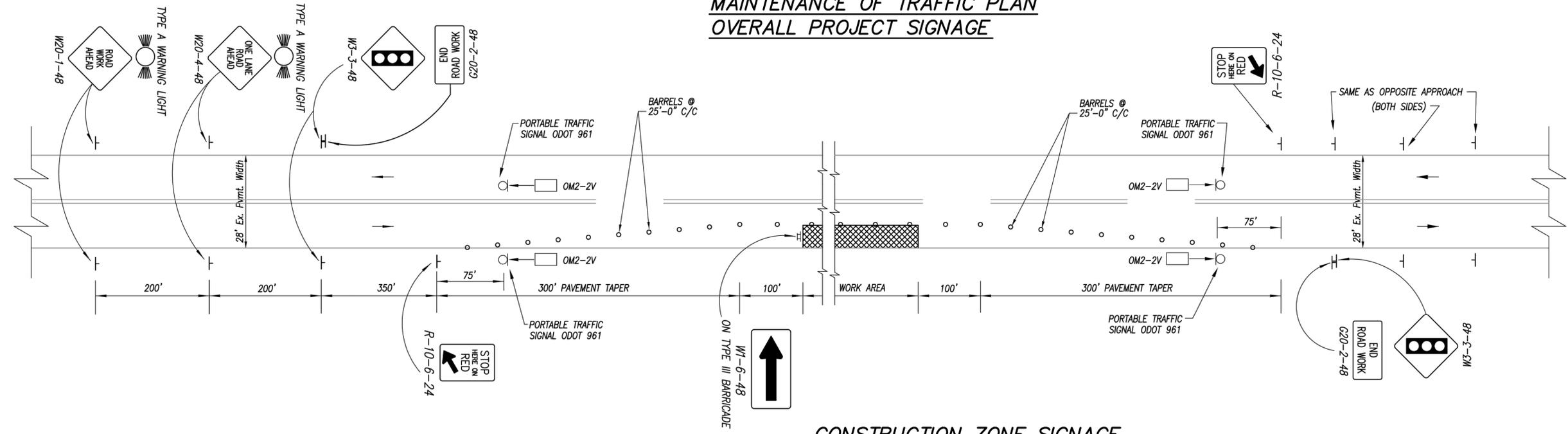


**TRAFFIC CONTROL SIGN LEGEND**

- 1 CHIPPEWA ROAD D3-1  
7 EA
- 2 ROAD WORK AHEAD W20-1
- 2 END ROAD WORK G20-2
- 3 ROAD CLOSED TO THROUGH TRAFFIC R11-4  
DO NOT ENTER R5-1  
1 EA
- 4 ELECTRONIC MESSAGING BOARDS  
2 EA

- NOTES:**
- 1.) ALL WORK SHALL BE PER THE MAINTAINING TRAFFIC NOTE PAGE 15
  - 2.) MOT SHALL BE DEVELOPED BY THE CONTRACTOR BASED ON THEIR METHOD OF OPERATION AND SUBMITTED TO THE CITY FOR REVIEW AND APPROVAL
    - A) MAXIMUM 1000-FOOT ZONE BETWEEN SIGNALS
    - B) FLAGGER REQUIRED FOR VEHICLES ENTERING ZONE BETWEEN SIGNALS
    - C) ZONE SHALL REMAIN IN PLACE UNTIL PAVEMENT ALONG CHIPPEWA ROAD RESTORED
    - D) FLAGGERS REQUIRED TO DIRECT TRAFFIC FOR WORK ON RIVERVIEW ROAD. ROADWAY SHALL BE BROUGHT BACK TO NORMAL TWO-WAY TRAFFIC DURING NON-WORK HOURS.
  - 3.) CONTRACTOR REQUIRED TO PROVIDE 2 ELECTRONIC MESSAGING BOARDS FOR 2-MONTHS EACH. THE INTENT WOULD BE TO POST ADVANCED NOTIFICATION PRIOR TO CONSTRUCTION AND PROVIDE NOTIFICATION AT THE ONSET OF CONSTRUCTION. NOTIFICATIONS MUST BE APPROVED BY THE CITY PRIOR TO POSTING.

**MAINTENANCE OF TRAFFIC PLAN  
OVERALL PROJECT SIGNAGE**



**CONSTRUCTION ZONE SIGNAGE  
ODOT STANDARD PARTIAL CLOSING OF 1 LANE OF A 2 LANE HIGHWAY  
AND MAINTENANCE OF TWO-WAY TRAFFIC**

REVISIONS

**MAINTENANCE OF TRAFFIC PLAN  
CHIPPEWA RD. & CALVIN DRIVE SANITARY  
(WISE RD. TO RIVERVIEW RD.)  
CITY OF BRECKSVILLE  
CUYAHOGA COUNTY, OHIO**

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 M. L. BOHNING, INC. 10000 W. 120th St., Liberty, OH 43115

HORIZ. SCALE	AS NOTED
VERT. SCALE	AS NOTED
DRN	E. W.
CKD	G. W.
DATE	FEB, 2022
ORDER NO.	3810-289-E

**STANDARD SPECIFICATIONS - SEWER MAINS AND APPURTENANCES**

**DEVELOPER/ENGINEER PROCEDURES**

All Developer/Engineering Procedures as established by Cuyahoga County Department of Public Works (CCDPW) shall be followed, which include: Latest ODOT Specifications, Municipality standards, Uniform Standards For Sewerage Improvements and Uniform Standards Sewer Details, Cuyahoga County Sanitary Engineering Division Rules and Regulations, and Contractor Permit Information. **In the case of conflicts between written specifications and drawings, the written specification shall apply.** One (1) electronic copy in pdf format, and six (6) paper set of detail drawings on 22" x 34" sheets signed by the City Engineer and Design Engineer, (including plan and profile, applicable sewer details, proposed and existing topography and all buried utilities) and specifications of all proposed sewers and shall be submitted for review and approval to: Cuyahoga County Department of Public Works, c/o Permit Department, 2501 Harvard Ave., Newburgh Heights, OH 44105. Upon the Sanitary Engineer's approval of the detail drawings and specifications for construction, the developer/engineer will have eighteen (18) months from the date of the approval of plans to begin construction or plans must be resubmitted to the CCDPW for approval. The cost to record any and all easements and/or plats for Developer's projects for sewer lines, water lines, or pump stations to be dedicated to Cuyahoga County or a given community for ownership, operation and maintenance shall be at the cost of the Developer/Engineer.

**COLLECTION SYSTEM IMPROVEMENTS**

The CCDPW and/or Municipality shall determine whether or not the County sewer collection and tributary system has available capacity to allow for a development to proceed. Gravity sewers shall consist of a minimum size of eight (8) inch diameter for mainline sewers and six (6) inch diameter for service laterals at minimum slope of 1% (for laterals) and full flow minimum velocities of two (2) fps. The CCDPW shall require sewers and pump stations to be sized and to be installed at depths for the ultimate development of the entire tributary service area. Gravity sewers and service laterals shall be required in place of force mains/pressure sewers when the CCDPW determines it is in the public interest to do so. The requirements herein shall generally supersede any other requirements and any conflict in requirements shall be ultimately determined by CCDPW.

Generally, design shall be in accordance with Ohio E.P.A. regulations, the latest version of "Ten State Standards" and shall conform to the latest Uniform Standards For Sewerage Improvements, Uniform Standards Sewer Details, and ODOT Specifications.

The Developer and/or Engineer shall not allow other new utilities to be installed within six (6) feet horizontally of an installed new sanitary sewer or in the same trench as the sewer except at crossings. Should this occur, the Developer will be responsible for maintaining the sanitary sewer mains and the CCDPW will not permit taps to said line until the other utility lines are relocated six (6) feet away from the sanitary sewer. Sewer lines shall be located within the public road right-of-way, or within an approved easement. Water mains shall be installed with at least a ten (10) feet horizontal and eighteen (18) inch vertical separation from any sanitary sewers per Uniform Standards For Sewerage Improvements. The County also requires eighteen (18) inch vertical separation from any sanitary or storm sewers, measured from out-to-out.

**COLLECTION MATERIAL MINIMUM REQUIRED SPECIFICATIONS AND INSTALLATION STANDARDS**

**LINE CONSTRUCTION STAKING**

Gravity sanitary sewers and force mains shall be staked prior to the installation of new pipe. A State of Ohio Registered Professional Surveyor shall be required for the mainline staking and offsets. Staking shall be for both line and grade no greater spacing than every fifty (50) feet plus at all fittings and off-set at ten (10) feet. All public gravity sewers shall be installed with the use of a laser to insure that they are installed properly to grade.

**MAIN LINE AND SERVICE LATERAL SEWER PIPE**

All sewer pipe and laterals shall be buried below the frost line consisting of a minimum of at least three (3) feet of cover over the top of the pipe; for this requirement, the Designer shall consider both the existing grade and any anticipated future grade. All sewers (storm and sanitary) crossing a creek shall have six (6) inches of concrete (3000 PSI) encasement. Depths for sewers mains, laterals and force mains with less than three (3) feet of cover shall be approved in writing by the CCDPW prior to the construction phase; additional requirements for such situations may be mandated by the CCDPW.

Flexible PVC sewer pipe buried with less than thirteen (13) feet of cover shall be solid wall pipe; PVC compounds shall meet the requirements of ASTM F-789, SDR 35, six (6) inch through fifteen (15) inch diameter and ASTM F-679 (eighteen (18) inch through thirty (30) inch diameter pipe), conforming to ASTM D-3034, with joints conforming to ASTM D-3212. Fittings shall conform to ASTM D-3034. Gaskets shall conform to ASTM F-477. Pipe bedding shall conform to the Uniform Standards For Sewerage Improvements.

Flexible PVC sewer pipe buried with more than thirteen (13) feet of cover shall be solid wall pipe; PVC compounds shall meet the requirements of ASTM F-949. Pipe shall meet minimum pipe stiffness rating of PS-115 and shall consist of SDR 26 or thicker walled pipe as needed, as recommended by the manufacturer for the actual buried depth, conform to ASTM D-3034 through fifteen (15) inch diameter and ASTM F-679 for larger sizes. Fittings shall conform to ASTM D-3034. Pipe bedding shall conform to the Uniform Standards For Sewerage Improvements.

Alternate pipe different than those specified above for gravity sewer installations may be used, but piping material shall conform to the latest Uniform Standards For Sewerage Improvements and Uniform Standards Sewer Details.

All new gravity sewers 8-inch and larger shall be CCTV inspected by a CCDPW approved company regularly engaged in this type of work upon completion of installation. Costs shall be paid for by the contractor unless otherwise noted in the specifications. All sewers and laterals in the near vicinity of borings, drilling, and/or jacking of any piping shall also be CCTV inspected by the contractor at his cost to assure that no damage has been done to the piping. A copy of the video(s) and accompanying report(s) shall be submitted to the CCDPW.

All existing sewers, existing sewer laterals, and/or other existing facilities to be re-used shall be located by the contractor and CCTV inspected prior to beginning of construction at the contractor's expense. The CCTV inspection shall be submitted to the CCDPW and approved before the re-use of any existing facilities may be incorporated into the project.

Service lateral pipe shall be six (6) inch diameter consisting of PVC (solid wall pipe) and shall conform to the Uniform Standards For Sewerage Improvements. If the design necessitates a larger service lateral pipe for larger usage customers, the increased size shall be subject to CCDPW approval. **Service lateral pipes shall not be installed without a Permit from the County and without calling at least 24 hours in advance for inspection at (216) 443-8209. County service lateral inspections will only be performed during normal County work hours.** Service laterals shall only serve gravity drains in the customer's structure, including if possible basement or lower level, such as floor drains, toilet, sink, showers, slop sinks, clothes washer drains, etc. Service laterals which cannot be gravity shall utilize an approved grinder pump system. Service laterals for residential customers shall have a test-tee installed within three (3) feet of the right-of-way line. Service laterals for commercial customers shall have a test-tee installed within five feet (5') of the building foundation exterior, and at the right-of-way line. Service laterals shall not have any bends other than 45-degree or 22.5-degree bends. **Ninety (90) degree bends (Horizontal or Vertical) are not acceptable.** Test Tees are to be installed behind bends (upstream of) greater than 22.5-degree. One Test Tee should be installed for every one hundred (100) feet of pipe installed and spaced and located to allow access for easy cleaning. All Cleanouts shall be straight cleanouts or Test Tees, no swiping cleanouts. Clean water connections of the sanitary sewer are prohibited, including, but not limited to, storm water drains, yard drains, driveway drains, roof water drains, exterior footer or foundation by gravity or with interior sump pump, etc. In developments where connection to a service lateral will not occur for more than thirty (30) days, the Developer's contractor shall install a watertight cap and lateral 2x2 markers including a metal rod so the ends can be located or unless approved by the Engineer. When a building(s) is abandoned, existing service laterals shall be cut and capped with a watertight cap adjacent to the sewer main. All new lateral riser shall conform to Uniform Standards Detail No. 10 (with two 45 deg bends instead of one 90 deg bend as shown) and the lateral should be installed vertical to the surface. All Test Tees shall conform to the Uniform Standards Sewer Detail. All lateral connections to existing cleanouts and/or Test Tees shall be made at the lowest point in the Cleanout or Test Tee; connections above this point are prohibited. Solvent cement type joints or glued joints are prohibited or unless approved by the Engineer.

In all communities where the CCDPW issues permits, the installation of Bentonite Clay Dams (per the Uniform Standard Detail) on sanitary sewers, storm sewers, and sanitary and storm laterals may be required by the CCDPW. Where sewers and laterals cross creeks and/or ditches, two additional Dams may be required on the pipe, one on either side of the crossing. **In addition, in Olmsted Township, the installation of Bentonite Clay Dams shall be required on all sanitary and storm laterals; plus, where sewer laterals cross creeks and/or ditches, a minimum of two Dams shall be required on every pipe, one Dam on either side of the crossing.**

Connections of service laterals and/or sewers to existing and/or proposed sewer pipe mains shall be as follows:

a. **To PVC Sewer Mains** - cut out a section of the existing sewer main, install a manufactured PVC wye (with six (6) inch or appropriate size branch) with water tight PVC no-hub couplings, or approved equal, pipe adaptors for connections on sewer mains 18-inch and smaller. Where sewer mains are larger than 18-inch, inserta-tees maybe used, manufactured by Inserta Fittings Company, or approved equal. In no case shall the connections for other than six (6) inch lateral connections exceed 2/5 the diameter of the main sewer. PVC to PVC piping connections should be completed using a manufactured PVC No-Hub coupling or unless approved by the Engineer. Pipe bedding and installation shall conform to the Uniform Standards or Sewerage Improvements.

b. **To Concrete Sewer Mains** - cut out a section of the existing sewer main, install a manufactured RCP wye (with six (6) inch or appropriate size branch) with water-tight Strongback Femco type, or approved equal, pipe adaptors. Where sewer mains are larger than 10-inch, core pipe and install a manufactured flexible watertight six (6) inch rubber boot with stainless steel band(s), Model NPC Kor-N-Tee (as manufactured by NPC) or approved equal. Pipe bedding and installation shall conform to the Uniform Standards For Sewerage Improvements. RCP to PVC piping connections should be completed using a Strongback Femco connection or equal.

c. **To Vitrified Clay Pipe Sewer Mains** - remove one (1) section of existing pipe (joint-to-joint), install a manufactured watertight PVC wye (with six (6) inch or appropriate size branch) with water-tight Strongback Femco type, or approved equal, pipe adaptors on sewer mains 18-inch and smaller. Where sewer mains are larger than 18-inch, inserta-tees maybe used, manufactured by Inserta Fittings Company, or approved equal. In no case shall the connections (for other than six (6) inch lateral) connections exceed 2/5 the diameter of the main sewer. Pipe bedding and installation shall conform to the Uniform Standards For Sewerage Improvements.

Service lateral connections to manholes shall use a KOR-N-SEAL or approved equal (connections are only allowed in special cases and only one (1) inside drop per manhole allowed). Service laterals from the public sewer main to the building foundation shall not be installed until the building foundation and basement construction has been completed.

~~External grease interceptors shall be installed in services for all food service businesses and oil/grit interceptors on all services for customers with floor drains in garage/warehouse type buildings. Interceptors are to be sized as required by CCDPW Rules and Regulations with a minimum effective grease interceptor size of 750 gallons. The customer shall be responsible for maintenance by cleaning/pumping their interceptor on a regular schedule. Interceptors shall be constructed water-tight and shall meet the requirements of CCDPW standards. The inlet and outlet pipes shall be sized from the building foundation to the grease trap shall be six-inch (6") diameter minimum with a six (6) inch minimum diameter outlet to three (3) feet outside the tank. There shall be cleanouts installed in the inlet pipe and outlet pipes outside the grease interceptor.~~

**PRESSURE SEWER/FORCE MAIN PIPE**

Pressure sewer/force main pipe shall be designed for a minimum pressure of 150 p.s.i. and shall consist of:

- a. PVC conforming to AWWA C900-DR 18 (solid wall pipe with PVC compounds meeting the requirements of SDR 26 ASTM D-2241), pipe shall include rubber gaskets or o-rings conforming to the requirements of ASTM D-3429;
- b. Ductile Iron Pipe (DIP) shall have a minimum wall thickness of Class 52, with push-on type joints, cement lined (AWWA C104), and shall meet the requirements of AWWA C150 and C154;
- c. HDPE, conforming to SDR 11 (ASTM F714 and D3035). Pipe joints shall be joined by use of the heat fusion technique of butt fusion resulting in a monolithic pipe.

- All joints shall be fully restrained and as strong as the pipe in both tension and hydrostatic loading;
- Pressure sewer pipe shall be pressure tested per manufacturer's recommendations;
- Restrained joints shall be used at a minimum at all joint fittings and at the next pipe joint from each fitting in all directions;
- Restrained joints shall consist of Meg-a-Lugs, Model Ebbe Series 100 or equal as approved by CCDPW;
- Thrust blocks shall be used at all change of direction fittings in addition to the restrained joints, and shall be 4,000 psi concrete;
- Commercial and non-residential force mains shall have minimum cover of six (6) feet;
- Grinder pump pressure sewer/force mains shall be flexible HDPE SDR 11, jointless. The sewer shall be installed with a minimum of six (6) feet of cover;
- All high points in force main shall have an air release valve installed in a standard manhole conforming to the Uniform Standards Sewer Details;
- Two (2) No. 8 stranded wires shall be buried with all PVC and HDPE pressure sewer pipes located at the 10:00 and 2:00 positions and terminated in valve boxes;
- along with four (4) inch wide tape noting "SEWER/FORCE MAIN BURIED BELOW" buried over pipe twelve (12) inch below finish grade.

**GENERAL PIPE REQUIREMENTS & TESTING**

All manufacturer's recommendations for unloading, installation, trench preparation, assembly, backfill, pressure or infiltration test, deflection tests, etc. shall be followed unless in conflict with these specifications, the latest version of Ten State Standards, Ohio EPA, or the Uniform Standards For Sewerage Improvements standards. If there is a conflict, the more restrictive requirements shall govern, unless approved in writing by the CCDPW. The use of recycled concrete or slag for bedding and backfill is not approved by the CCDPW.

Installed sanitary sewer pipe eight (8) inch to twenty four (24) inch shall require an air testing conforming with ASTM F-1417; concrete pipe shall be tested per ASTM C-969, ASTM C-1103 or ASTM C-1214; clay pipe shall be tested per ASTM C-828 or ASTM C-1091. Installed sanitary sewer pipe twenty seven (27) inch to forty eight (48) inch shall require weir testing per the Uniform Standards For Sewerage Improvements.

All flexible pipe 8-inch and larger (Sanitary, Combined & Storm) shall meet maximum five (5) percent deflection (Mandrel) testing at 60-days from the time of backfilling the sewer trench. The mandrel shall be as specified in the Uniform Standards. When the use of the specified mandrel is not possible, laser profiling per ODOT 611.12 and 611.13 is required and shall be used in lieu of the mandrel testing. All testing above shall be performed by a certified independent agency paid by the contractor and witnessed by a representative (Inspector) of the CCDPW.

**SEWER PIPEBACKFILL**

Material used for bedding and backfilling along the sides of the sewer and cover to a height of 12 inches over the top of the sewer shall consist of coarse interlocking aggregate No. 57, 6, 67, 68, 7, 78, or 8 and as per Uniform Standard Sewer Details. Slag or recycled concrete is not permitted. **Backfill above the pipe shall be premium backfill using Low Strength Mortar (LSM) when within five (5) feet of pavement or within city right-of-way or unless indicated differently in the specifications. All material shall be compacted to 95% Proctor in maximum 12-inch lifts.**

**MANHOLES/STRUCTURES**

All manholes/structures shall be watertight structures made of precast concrete sections with full depth channels and shall meet the requirements of ASTM C-478 and Uniform Standards For Sewerage Improvements and Details. Chimney seals shall be installed on all new sanitary manholes. All manhole/structure frames and castings shall conform to the Uniform Standards For Sewerage Improvements and Details. Openings in ALL Structure Section for ALL pipes (Sanitary, Combined & Storm) shall be prefabricated. Flexible connections shall be provided for sanitary, storm and combined sewers. Premium seals shall meet ASTM C-923.

All new sanitary manholes shall be vacuum tested in accordance with the procedures of ASTM C-1244. No bricks shall be used as grade rings. The testing shall be performed by a certified independent agency paid by the contractor and witnessed by a representative (Inspector) of the CCDPW.

*NOTES STRICKEN BY CITY OF BRECKSVILLE TO AVOID CONTRADICTING NOTES*

**GENERAL COUNTY SEWER NOTES**

REVISIONS:

SCALE  
NO SCALE

DATE: OCTOBER 2021

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO

SHEET NO. 4

**DETAILS  
CHIPPEWA RD. & CALVIN DR. SANITARY  
(WIESE RD. TO RIVERVIEW RD.)  
CITY OF BRECKSVILLE  
CUYAHOGA COUNTY, OHIO**

**DONALD G. BOHNING & ASSOCIATES, INC.**  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY - VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 M. LUTHEMANN, LICENSED SURVEYOR - 12016, (MAY 1987) 2011, (MAY 6/7/2019) 34,479 (M. D.T.)



HORIZ. SCALE  
**AS NOTED**

VERT. SCALE  
**AS NOTED**

DR'N. **E. W.** OKD. **G. W.**

DATE  
**MAR, 2022**

ORDER NO.  
**3810-289-E**



SANITARY MANHOLE - E-W 1700 SOLID COVER, STAMPED "SANITARY"  
 STORM MANHOLE - E-W 1700 VENTED COVER OR APPROVED EQUAL, STAMPED "STORM"  
 STORM INLET MANHOLE - E-W 5105 W/ TYPE M1 GRATE OR APPROVED EQUAL  
 INLET MANHOLE W/ CURB BOX - E-W 7045 W/ TYPE M1 GRATE & TYPE T1 BACK

CHIMNEY SEALS SHALL BE REQUIRED AND INSTALLED ON ALL NEW SANITARY MANHOLES AND ALL EXISTING SANITARY MANHOLES ADJUSTED TO GRADE

NOTES

Sections of the precast manhole shall be cast and assembled with either all tongue or all groove ends up. Lift holes may be provided in each section for handling.

TOP AND TRANSITION /or reducer/ Sections may be either eccentric cone, concentric cone or flat slab.

BASES for Manholes are shown with monolithic floor and riser which may be cast in one or two operations. A permissible alternate is to cast and ship the floor and barrel separately. Openings for inlet and outlet pipes shall be provided, either when the unit is cast or later, to meet project requirements. Bottom channels may be formed of concrete precast in the base or by field construction. Floors may also be poured in place.

OPENINGS IN RISER SECTIONS for ALL pipes (Sanitary, Combined & Storm) shall be prefabricated. Flexible connections shall be provided for sanitary, storm and combined sewers. Premium seals shall meet A.S.T.M C-923.

JOINT SEALS between precast manhole sections and sewers shall be resilient and flexible gasket joints shall meet A.S.T.M C-443, FEDERAL SPECIFICATIONS SS-S-00210 (210 A) and AASHTO M-198

MANHOLE JOINTS and GRADE RINGS shall be sealed externally and between the grade rings with a layer of mastic compound such as Faberlite, Kent Seal or equal.

MATERIALS for bases and other precast sections including reinforcement not specified hereon, shall comply with the specifications.

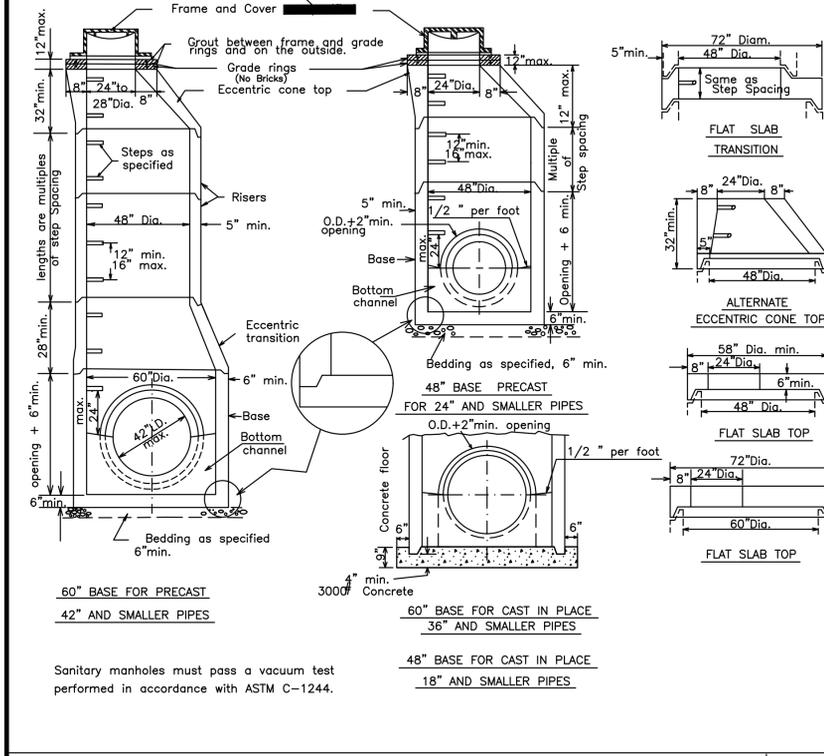
PRECAST MANHOLES shall conform to the requirements of A.S.T.M C-478.

SEAL all lift holes with approved concrete plugs.

LANDING PLATFORMS as shown on the LANDING DETAILS shall be installed in manholes that are over 28 feet deep to the invert with a maximum vertical spacing of 20 feet.

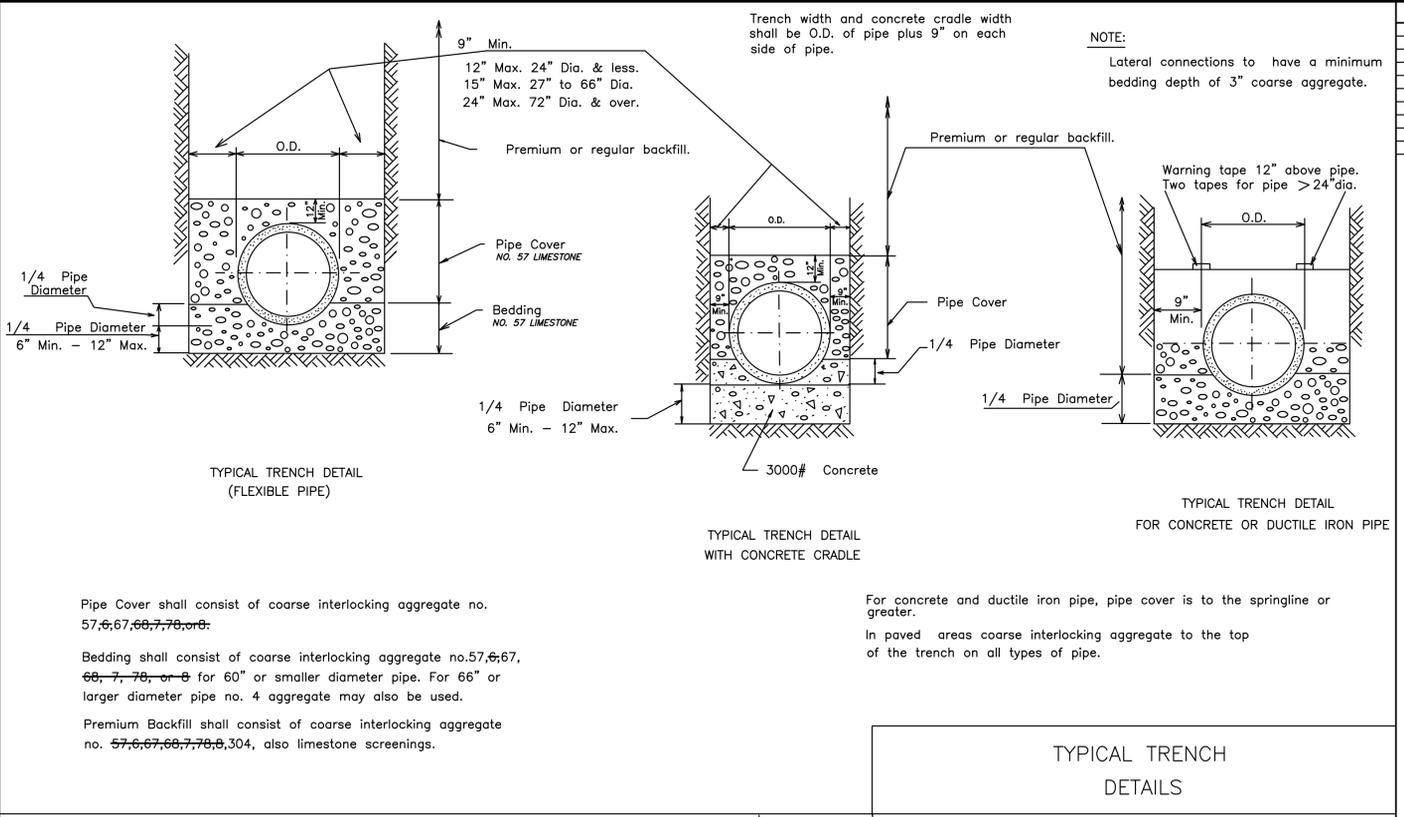
MANHOLE FRAMES - chimney seals will be required on all new sanitary manholes.

SANITARY MANHOLES shall have a minimum 3" vertical drop from casting elevations.



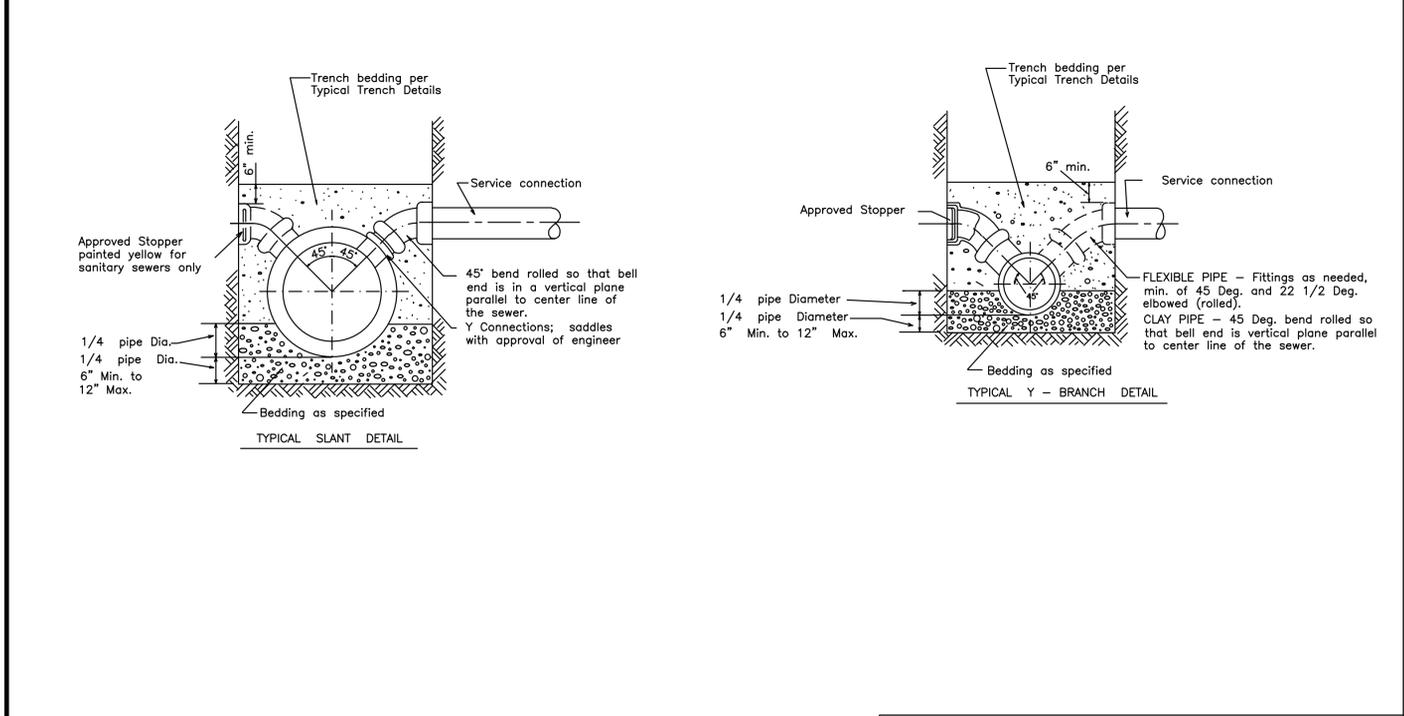
REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	----------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 5



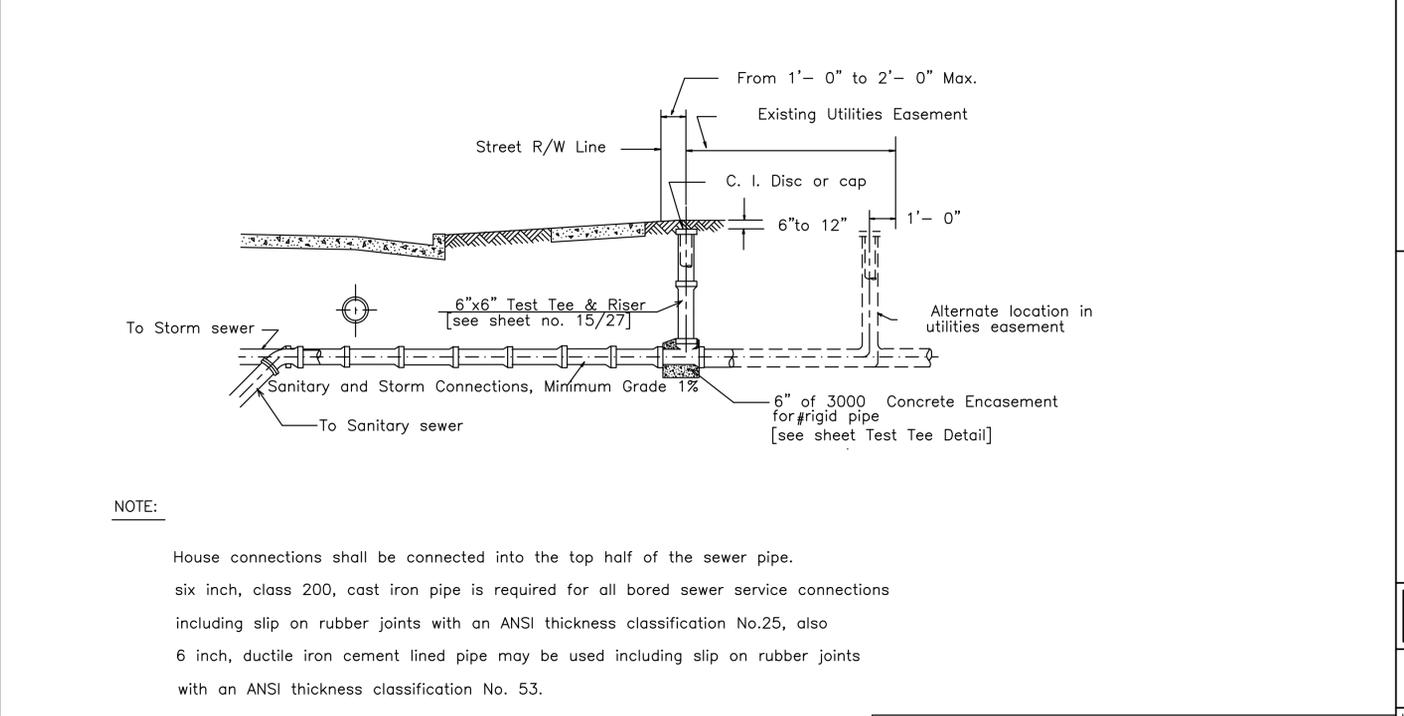
REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	----------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 12



REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	----------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 11



REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	----------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 15

REVISIONS

DETAILS  
 CHIPPEWA RD. & CALVIN DR., SANITARY  
 (WIESE RD. TO RIVERVIEW RD.)  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

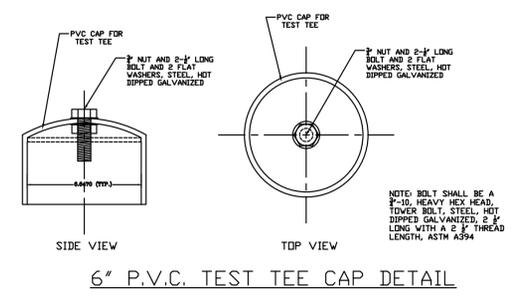
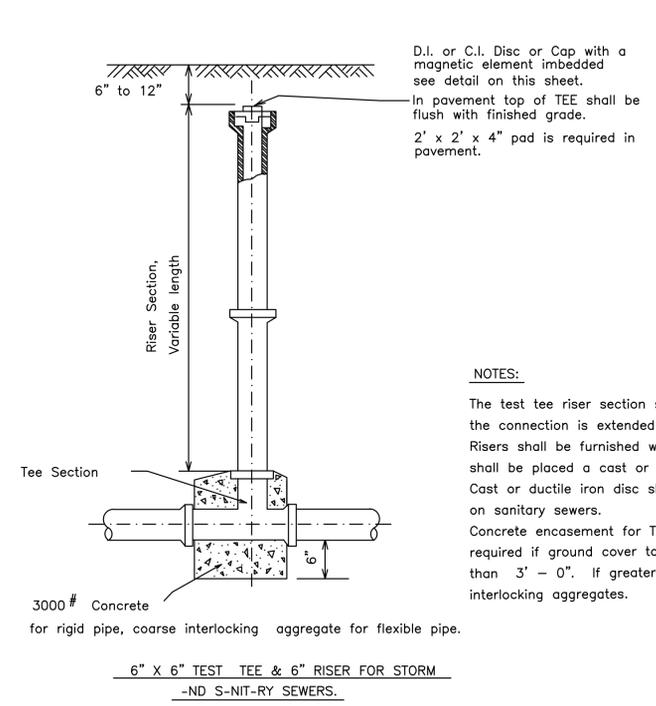
DONALD G. BOHNING & ASSOCIATES, INC.  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY - VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 M. L. LINDSEY, P.E., 18870, 18910, 18920, 18930, 18940, 18950, 18960, 18970, 18980, 18990, 19000, 19010, 19020, 19030, 19040, 19050, 19060, 19070, 19080, 19090, 19100, 19110, 19120, 19130, 19140, 19150, 19160, 19170, 19180, 19190, 19200, 19210, 19220, 19230, 19240, 19250, 19260, 19270, 19280, 19290, 19300, 19310, 19320, 19330, 19340, 19350, 19360, 19370, 19380, 19390, 19400, 19410, 19420, 19430, 19440, 19450, 19460, 19470, 19480, 19490, 19500, 19510, 19520, 19530, 19540, 19550, 19560, 19570, 19580, 19590, 19600, 19610, 19620, 19630, 19640, 19650, 19660, 19670, 19680, 19690, 19700, 19710, 19720, 19730, 19740, 19750, 19760, 19770, 19780, 19790, 19800, 19810, 19820, 19830, 19840, 19850, 19860, 19870, 19880, 19890, 19900, 19910, 19920, 19930, 19940, 19950, 19960, 19970, 19980, 19990, 20000

REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	----------------	--------------------

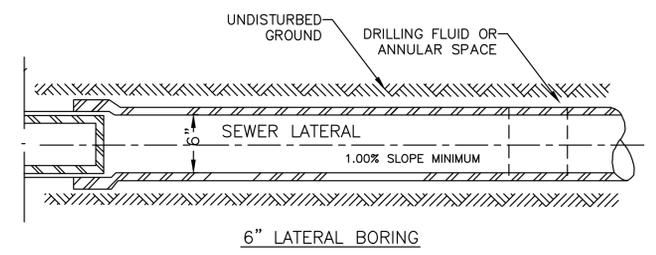
UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 15

HORIZ. SCALE AS NOTED  
 VERT. SCALE AS NOTED  
 DRN. E.W. OKD. G.W.  
 DATE MAR, 2022  
 ORDER NO. 3810-289-E

19  
20



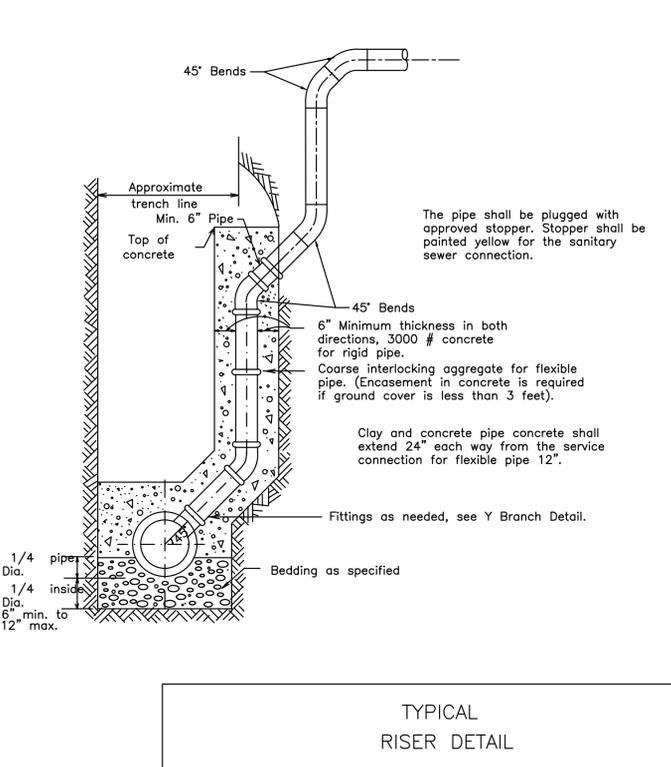
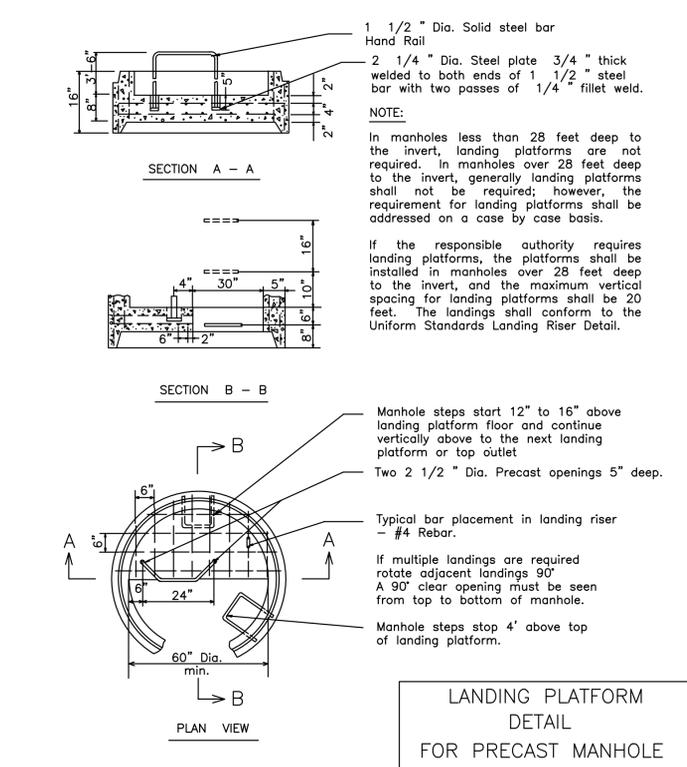
**NOTES:**  
 The test tee riser section shall be installed when the connection is extended to the building.  
 Risers shall be furnished with stoppers upon which shall be placed a cast or ductile iron disc.  
 Cast or ductile iron disc shall be painted yellow on sanitary sewers.  
 Concrete encasement for Test Tees is required if ground cover to "T" elevation is less than 3' - 0". If greater than 3' - 0" use coarse interlocking aggregates.



**NOTE:**  
 DRILLING FLUID TO REMAIN OR ANNULAR SPACE TO BE GROUTED.  
**TYPES OF ACCEPTABLE PIPE:**  
 1. FUSIBLE PVC CONFORMING TO AWWA C900 OR C905; MINIMUM SDR 21 PRESSURE CLASS 200 PSI.

REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	-------------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 16

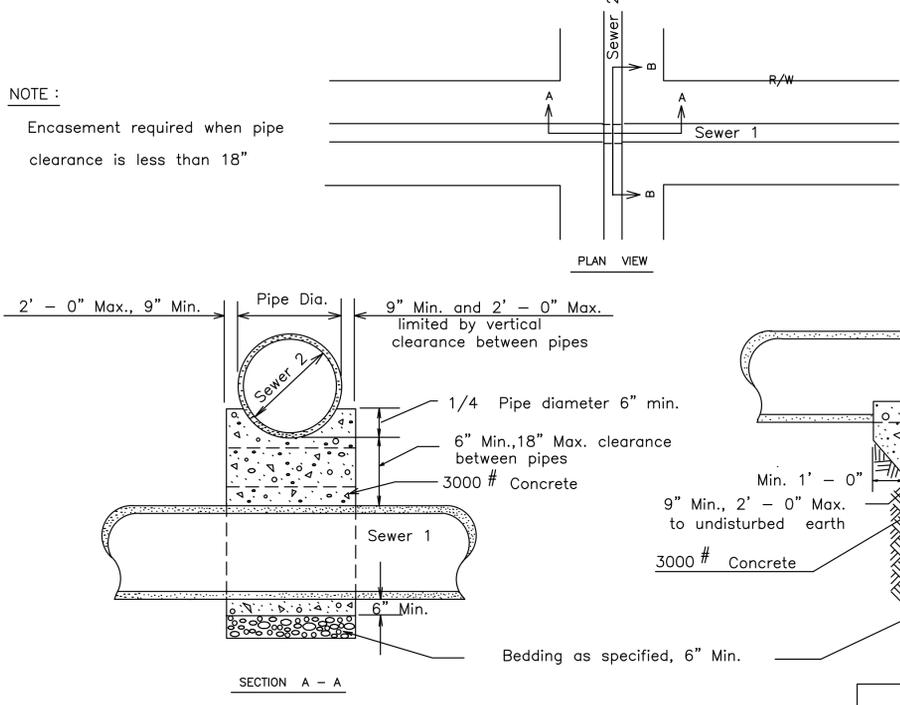


REVISIONS:	SCALE NO SCALE	DATE: JANUARY 2020
------------	-------------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 10

REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	-------------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 29



REVISIONS:	SCALE NO SCALE	DATE: OCTOBER 2021
------------	-------------------	--------------------

UNIFORM STANDARDS: CUYAHOGA COUNTY DEPARTMENT OF PUBLIC WORKS --- MUNICIPAL ENGINEERS ASSOCIATION OF NE OHIO SHEET NO. 14

DETAILS  
 CHIPPEWA RD. & CALVIN DR. SANITARY  
 (WIESE RD. TO RIVERVIEW RD.)  
 CITY OF BRECKSVILLE  
 CUYAHOGA COUNTY, OHIO

DONALD G. BOHNING & ASSOCIATES, INC.  
 CIVIL ENGINEERING & SURVEYING  
 7979 HUB PARKWAY - VALLEY VIEW, OHIO 44125  
 PHONE: (216) 642-1130 FAX: (216) 642-1132  
 M. Licensed in OH, IA, IL, IN, MI, MN, MO, ND, SD, WI, WY



HORIZ. SCALE	AS NOTED
VERT. SCALE	AS NOTED
DRN.	E. W.
CKD.	G. W.
DATE	MAR, 2022
ORDER NO.	3810-289-E

20  
20