COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
CHESTNUT LANE
PUMP STATION IMPROVEMENTS
WEST BRADFORD TOWNSHIP, CHESTER COUNTY, PA

PRELIMINARY / FINAL LAND DEVELOPMENT PLAN
April 2024

I AM AN AUTHORIZED AGENT EMPLOYED BY THE OWNER THAT ACKNOWLEDGES AND CERTIFIES THAT THIS FINAL LAND DEVELOPMENT PLAN IS THE ACT AND DEED OF THE LANDOWNER AND AGREES THAT THE LAND DEVELOPMENT PLANS SHALL BE RECORDED AS SUCH.

SIGNATURE: _____

DATE: _____

CERTIFICATION BY ENGINEER OR SURVEYOR

a. I CERTIFY THAT THIS SURVEY AND PLAT ARE CORRECT:

_____

(SEAL)

OWNER'S CERTIFICATE AND ACKNOWLEDGEMENT OF SUBDIVISION AND LAND DEVELOPMENT PLANS

ON THIS, THE _____ DAY OF _____, 20___, BEFORE ME, THE UNDERSIGNED OFFICER, PERSONALLY APPEARED:

_____
(NAME OF OWNER)

WHO, BEING DULY SWORN ACCORDING TO LAW, DEPOSES AND SAYS THAT HE IS THE OWNER AND/OR EQUITABLE OWNER OF THE PROPERTY SHOWN ON THIS PLAN, AND THAT HE ACKNOWLEDGES THE SAME TO BE HIS ACT AND PLAN AND DESIRES THE SAME BE RECORDED AS SUCH ACCORDING TO LAW.

WITNESS MY HAND AND SEAL THE DAY AND DATE ABOVE WRITTEN.

MY COMMISSION EXPIRES:

_____ _____
(NOTARY PUBLIC OR OTHER OFFICER) (SEAL)

APPROVAL CERTIFICATE BY THE BOARD OF SUPERVISORS

APPROVED BY RESOLUTION OF THE BOARD OF SUPERVISORS OF WEST BRADFORD TOWNSHIP THIS _____ DAY OF _____, _____.

_____
CHAIRMAN

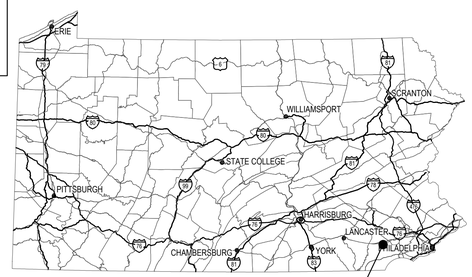
_____
VICE-CHAIRMAN

_____
MEMBER

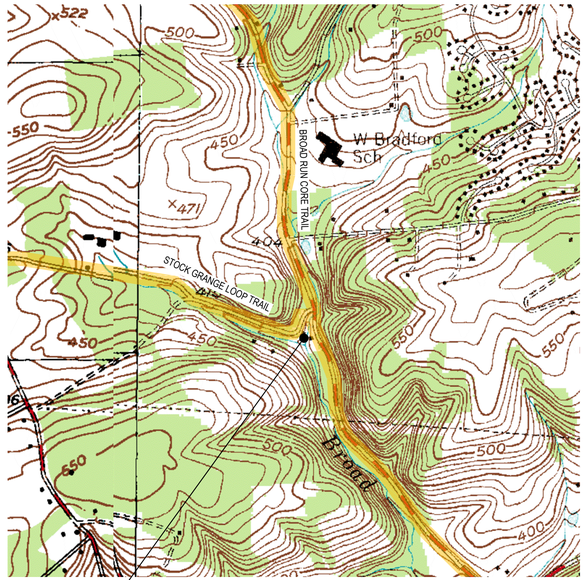
OWNER INFORMATION

COMMUNITY UTILITIES OF PA, INC. - BROAD RUN
ATTN: EMILY LONG PH (570) 213-1447
500 W MONROE STREET, SUITE 3600
CHICAGO, IL 60661
EMAIL: EMILY.LONG@UIWATER.COM

THE GHD PLANS ARE SUBMITTED IN ARCH D SIZE - WHICH IS 24" BY 36". THE WEST BRADFORD TOWNSHIP ORDINANCE REQUIRES ANSI D OR ANSI E.



AREA MAP



LOCATION MAP

SITE ADDRESS:

1802 CHESTNUT LANE
WEST BRADFORD TWP, PA 19335

CALL BEFORE YOU DIG

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

PENNSYLVANIA ONE CALL SYSTEM, INC.
1-800-242-1776 OR 811

POCS SERIAL NUMBER: 20222901874

PENNSYLVANIA ONE CALL SYSTEM, INC. 1-800-242-1776 OR 811 STOP-CALL BEFORE YOU DIG!

UNDERGROUND UTILITIES ACT:

THE CONTRACTOR SHALL COMPLY WITH THE PROVISIONS OF THE PENNSYLVANIA GENERAL ASSEMBLY UNDERGROUND UTILITY LINE PROTECTION ACT, PA ACT 287 OF 1974, AS AMENDED BY ACT 50 OF 2017, 73 P.S. § 176 ET SEQ., FOR NOTIFICATION OF UTILITIES BEFORE EXCAVATION IN THE CONTRACT AREA. THE ONE UNDERGROUND UTILITIES CALL NUMBER IS 800-242-1776 OR 811.

INDIVIDUAL LOCAL UTILITIES ARE AS FOLLOWS:

WEST BRADFORD TOWNSHIP OF
1385 CAMPUS DRIVE
DOWNINGTOWN, PA. 19335
CONTACT: ALEX JARVIS
EMAIL: AJARVIS@WESTBRADFORD.ORG

COLUMBIA GAS TRANSMISSION ELLWOOD
1470 POORHOUSE ROAD
DOWNINGTOWN, PA. 19335
CONTACT: TYLER CALDWELL
EMAIL: TYLER_CALDWELL@TCENERGY.COM

AQUA PENNSYLVANIA
762 LANCASTER AVE
BRYN MAWR, PA. 19010
CONTACT: THOMAS WADDY
EMAIL: TBWADDY@AQUAAMERICA.COM

COMCAST
1004 CORNERSTONE BLVD
DOWNINGTOWN, PA. 19335
CONTACT: TOM RUSSO
EMAIL: TOM_RUSSO@CABLE.COMCAST.COM

PECO AN EXELON COMPANY C/O USIC
450 S HENDERSON ROAD SUITE B
KING OF PRUSSIA, PA. 19406
CONTACT: NIKKIA SIMPKINS
EMAIL: NIKKIASIMPKINS@USICLLC.COM

COMMUNITY UTILITIES OF PENNSYLVANIA
1201 SAWMILL RD
DOWNINGTOWN, PA. 19335
CONTACT: PAUL THOMAS
EMAIL: PAUL.THOMAS@UIWATER.COM

No.	Issue	Drafting Check	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN		JS	CA	4/04/2024
Author	E. CAMACHO	Drafting Check	M. WIESTLING	Project Manager	C. AMER
Designer	D. KNAPTON	Design Check		Project Director	M. BISIGNANI

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

PROFESSIONAL REGISTERED CHARLES WOLF AMER ENGINEER PE-044192-R COMMONWEALTH OF PENNSYLVANIA

GHD Inc.
298 East 5th Street, Suite 1
Bloomsburg PA 17815 USA
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www.ghd.com

Client: COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
Project: CHESTNUT LANE PUMP STATION IMPROVEMENTS

Title: COVER SHEET

Size: ARCH D

Project No.: 12562338
Date:
Scale: AS SHOWN

Sheet No.: LD-001

Plot Date: 4 April 2024 - 10:34 AM Plotted By: Jake Strobert Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\564\12562338\Digital_Design\ACAD2020\Sheets\General\12562338-LD001.dwg

ABBREVIATIONS

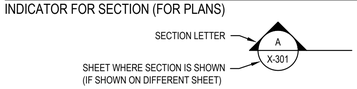
ADD'L	ADDITIONAL	HP	HORSEPOWER
AFF	ABOVE FINISHED FLOOR		
ADJ	ADJUSTABLE	ID	INSIDE DIAMETER
AGGR	AGGREGATE	IF	INSIDE FACE
ALLOW	ALLOWANCE	INV	INVERT
ALT	ALTERNATE	I/O	INPUT / OUTPUT
ALUM	ALUMINUM		
ARCH	ARCHITECT OR ARCHITECTURAL	LF	LINEAR FEET
ASSY	ASSEMBLY	LL	LIVE LOAD
APPROX	APPROXIMATE	LWL	LOW WATER LEVEL
BLDG	BUILDING	M	MOTOR
BLK	BLOCK	MGD	MILLION GALLONS PER DAY
BOT or B	BOTTOM	MH	MANHOLE
		MJ	MECHANICAL JOINT
CF	CUBIC FEET	MFR	MANUFACTURER
CFM	CUBIC FEET PER MINUTE	MIN	MINIMUM
CI	CAST IRON	MISC	MISCELLANEOUS
CIP	CAST IRON PIPE		
CMP	CORRUGATED METAL PIPE	NPT	NATIONAL PIPE THREAD
CO	CLEANOUT	NTS	NOT TO SCALE
CONN	CONNECTION		
CY	CUBIC YARD	OC	ON CENTER
CL	CLEAR	OD	OUTSIDE DIAMETER
℄	CENTER LINE	OF	OUTSIDE FACE
CONC	CONCRETE	OPNG	OPENING
CONT	CONTINUOUS		
CPVC	CHLORINATED POLYVINYL CHLORIDE	PRV	PRESSURE RELIEF VALVE
CL JT	CONTROL JOINT	PSI	POUNDS PER SQUARE INCH
		PVC	POLYVINYL CHLORIDE
DL	DEAD LOAD	POLY / PE	POLYETHYLENE
DIA, Ø	DIAMETER	℄	PLATE, PROPERTY LINE
DIP	DUCTILE IRON PIPE		
DWL	DOWEL	R	RADIUS
		REINF	REINFORCING
EF	EACH FACE	REQD	REQUIRED
EA	EACH		
EL or ELEV	ELEVATION	SF	SQUARE FOOT
ELEC	ELECTRIC	SS	STAINLESS STEEL
EQ	EQUAL	SCH	SCHEDULE
EX, EXIST	EXISTING	SPEC	SPECIFICATION
EXT	EXTERIOR	SQ	SQUARE
		STL	STEEL
FD	FLOOR DRAIN	STD	STANDARD
FF	FAR FACE/ FINISHED FLOOR	SYM	SYMBOL
FM	FORCE MAIN		
FLR	FLOOR	TEL	TELEPHONE
FT	FEET	TEMP	TEMPERATURE
FTG	FOOTING	TYP	TYPICAL
G	NATURAL GAS	UV	ULTRAVIOLET
GPM	GALLONS PER MINUTE		
GA	GAUGE	W	WATER
GAL	GALLON	WL	WATER LEVEL
GALV	GALVANIZED	W/O	WITHOUT
GC	GENERAL CONTRACTOR	WWF	WELDED WIRE FABRIC
HDPE	HIGH-DENSITY POLYURETHYLENE		
HWL	HIGH WATER LEVEL		

GENERAL LEGEND

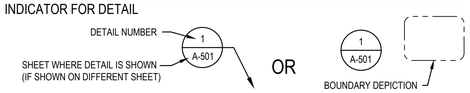
NEW GRAPHICS: EQUIPMENT, STRUCTURES, ETC., ARE SHOWN AS BOLD LINEWORK AND IN THIS TEXT FORMAT.

EXISTING GRAPHICS: EQUIPMENT, CONDITIONS STRUCTURES, ETC., ARE SHOWN AS LIGHT LINEWORK AND IN THIS TEXT FORMAT.

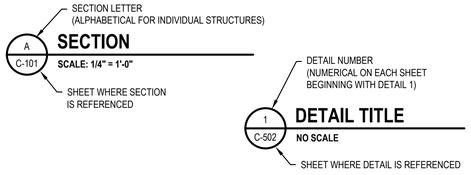
INDICATOR FOR SECTION (FOR PLANS)



INDICATOR FOR DETAIL

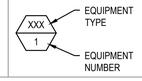


LABEL FOR VIEW / DETAIL

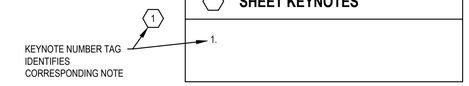


NORTH INDICATOR

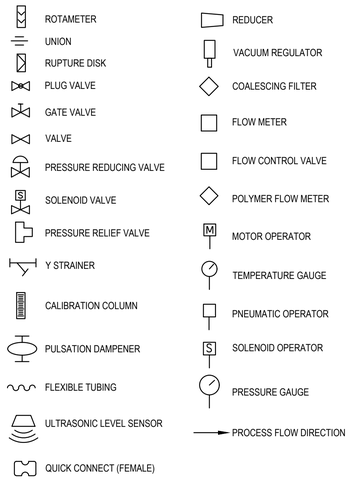
EQUIPMENT TAG



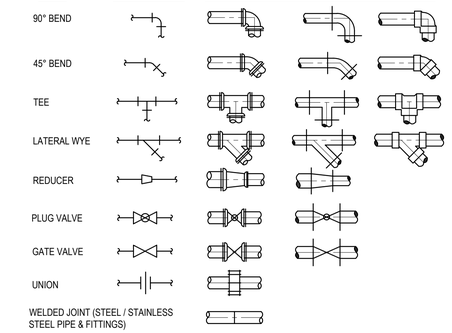
KEYNOTE INDICATOR



SCHEMATIC SYMBOLS / LEGEND



PIPING LEGEND



SHEET INDEX

GENERAL NOTES (APPLY TO ALL DRAWINGS)

1. EXISTING FACILITIES AND PIPING SHOWN LIGHT. NEW FACILITIES AND PIPING SHOWN DARK.
2. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING PIPING ELEVATIONS, LOCATIONS, SIZE AND TYPE OF MATERIAL WITH NEW PIPING PRIOR TO CONSTRUCTION. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE ALL EXISTING EQUIPMENT DIMENSIONS AND ELEVATIONS, AS REQUIRED, PRIOR TO ORDERING NEW EQUIPMENT.
3. CONTRACTOR SHALL COORDINATE ALL PIPING AND OTHER CONNECTIONS WITH THE APPROVED EQUIPMENT SHOP DRAWINGS.
4. TOPOGRAPHIC DATA IS BASED ON DRAWING M8226BASE BY METZ ENGINEERS 410 DERSTINE AVE., PO BOX 647 LANSDALE, PA 19446-0608, DATED 06-27-22. HORIZONTAL DATUM: NAD83 / VERTICAL DATUM: NAVD88
5. ALL BURIED PIPING TO BE MIN. 4' BELOW GRADE, UNLESS OTHERWISE NOTED.
6. FROM INVESTIGATIONS AND FIELD SURVEYS, IT IS ASSUMED THAT LOCATIONS OF PHYSICAL CONDITIONS, UTILITIES, ETC., ARE APPROXIMATE AND THE NATURE OF MATERIALS IS NOT GUARANTEED.
7. THE CONTRACTOR SHALL BE REQUIRED TO VERIFY ALL CONDITIONS AND DIMENSIONS ON THE JOB SITE BEFORE PROCEEDING WITH THE WORK AND SHALL MAKE MINOR ADJUSTMENTS AS REQUIRED ON THE JOB. SUCH ADJUSTMENTS ARE TO BE APPROVED BY THE ENGINEER AND THE OWNER.
8. LOCATION AND DEPTH OF EXISTING UTILITY LINES SHALL BE VERIFIED BY THE CONTRACTOR IN ADVANCE OF THE CONSTRUCTION. EXTREME CARE SHALL BE EXERCISED WHEN EXCAVATING EXISTING UTILITY LINES. HAND EXCAVATION ONLY WILL BE PERMITTED IN THE VICINITY OF EXISTING PIPES AND/OR CONDUITS. ANY DAMAGE TO UTILITIES SHALL BE REPAIRED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
9. ALL EROSION AND SEDIMENTATION CONTROL FACILITIES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PENNSYLVANIA "EROSION AND SEDIMENTATION POLLUTION CONTROL MANUAL" AND THE EROSION AND SEDIMENTATION CONTROL PLAN(S) PREPARED FOR THIS PROJECT.
10. THE CONTRACTOR SHALL MAINTAIN A RECORD SET OF "AS BUILT" DRAWINGS ON THE PROJECT SITE. AT THE COMPLETION OF THE PROJECT, THESE DRAWINGS SHALL BE TURNED OVER TO THE ENGINEER AND OWNER. THESE DRAWINGS SHALL INDICATE, BUT NOT BE LIMITED TO, CHANGES IN PIPING, INSTALLATIONS, VALVES, EQUIPMENT CHANGES, ELECTRICAL WORK, ETC.
11. DEMOLITION OF EXISTING PIPING AND EQUIPMENT MAY REQUIRE TEMPORARY SYSTEM SHUTDOWNS. CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL SHUTDOWN PROCEDURES WITH ENGINEER AND OWNER PRIOR TO ANY DEMOLITION WORK. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY EQUIPMENT, MATERIAL AND CONTROLS TO MAINTAIN SYSTEM OPERATIONS DURING CONSTRUCTION AS REQUIRED. ALL SHUTDOWNS AND STARTUPS TO BE COORDINATED WITH OWNER/OPERATOR DURING CONSTRUCTION. ONLY OWNER'S PERSONNEL SHALL PERFORM SYSTEM OPERATIONS, INCLUDING OPERATIONS OF VALVES AND PUMPS.
12. CONTRACTOR SHALL MAINTAIN SEWER FLOW AT ALL TIME DURING CONSTRUCTION. ALL BYPASS PIPING, CONNECTION, BULKHEADS, PLUGS, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
13. LOCATION OF SURFACE AND SUBSURFACE UTILITIES ARE PLOTTED FROM AS-BUILT DRAWINGS AND FROM ONE CALL INFORMATION. THOSE THAT WERE VISIBLE IN THE FIELD, WERE LOCATED AND MEASURED.
14. PROPERTY SITES DO NOT INCLUDE A BOUNDARY RETRACEMENT.
15. SITE EASEMENTS WERE RETRACED USING DOCUMENTATION PROVIDED BY THE CLIENT, ALONG WITH VERIFICATION OF MONUMENTATION USING CONVENTIONAL SURVEY PRACTICES.
16. ALL PROPERTY SURVEY PINS AND / OR STAKES MOVED, DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE REPLACED BY CONTRACTOR'S PROFESSIONAL SURVEYOR.
17. ALL PIPE AND MANHOLES SHALL BE TESTED IN ACCORDANCE WITH SPECIFICATIONS.
18. BRACING / SHORING OF EXISTING UTILITY POLES IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR TO COORDINATE AND PAY FOR BRACING / SHORING OF UTILITY POLES WITH UTILITY OWNER
19. PRIOR TO START OF WORK, CONTRACTOR TO COORDINATE AND HOLD EXISTING UTILITY PRE-CONSTRUCTION MEETING TO BE ATTENDED BY: OWNER, ENGINEER, CONTRACTOR AND UTILITY OWNERS WITHIN THE PROJECT AREA
20. TRAFFIC CONTROLS SHALL BE IN ACCORDANCE WITH PENNDOT PUB 213 AND ANY ROAD / CURB CUT PERMITS OBTAINED FOR THIS PROJECT
21. TEMPORARY END CAPS WILL BE REQUIRED FOR TESTING UP TO TIE-IN LOCATIONS
22. ACCESS TO CHESTNUT LANE PUMP STATION SHALL BE FROM CHESTNUT LANE.
23. WEST BRADFORD TOWNSHIP SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION OR MAINTENANCE OF THE PROPOSED IMPROVEMENTS.
24. THE ALTERATION AND/OR REMOVAL OF PERMANENT DRAINAGE SWALES OR STORMWATER MANAGEMENT FACILITIES ARE PROHIBITED.
25. THE OVERALL CONSTRUCTION SCHEDULE IS ESTIMATED TO BE SIX (6) MONTHS. SITE RESTORATION SHALL TAKE APPROXIMATELY ONE (1) WEEK. CONSTRUCTION MAY START SUMMER 2024.
26. THE OWNER GRANTS A BLANKET EASEMENT FOR THE ENTIRE PROPERTY TO WEST BRADFORD TOWNSHIP FOR THE PURPOSE OF A DRAINAGE EASEMENT AND FOR MAINTAINING THE STORMWATER MANAGEMENT FACILITIES, INCLUDING THE INFILTRATION TRENCH, IN THE EVENT THAT THE OWNER DOES NOT PROPERLY MAINTAIN SUCH FACILITIES.
27. THE OWNER SHALL GRANT WEST BRADFORD TOWNSHIP A 13.5-FOOT-WIDE EASEMENT PARALLEL TO BROAD RUN ROAD FOR THE BROAD RUN CORE TRAIL.

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author E. CAMACHO | Drafting Check M. WIESTLING | Project Manager C. AMER
Designer D. KNAPTON | Design Check | Project Director M. BISIGNANI

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL ENGINEER CHARLES WOLF AMER PE-041922-E

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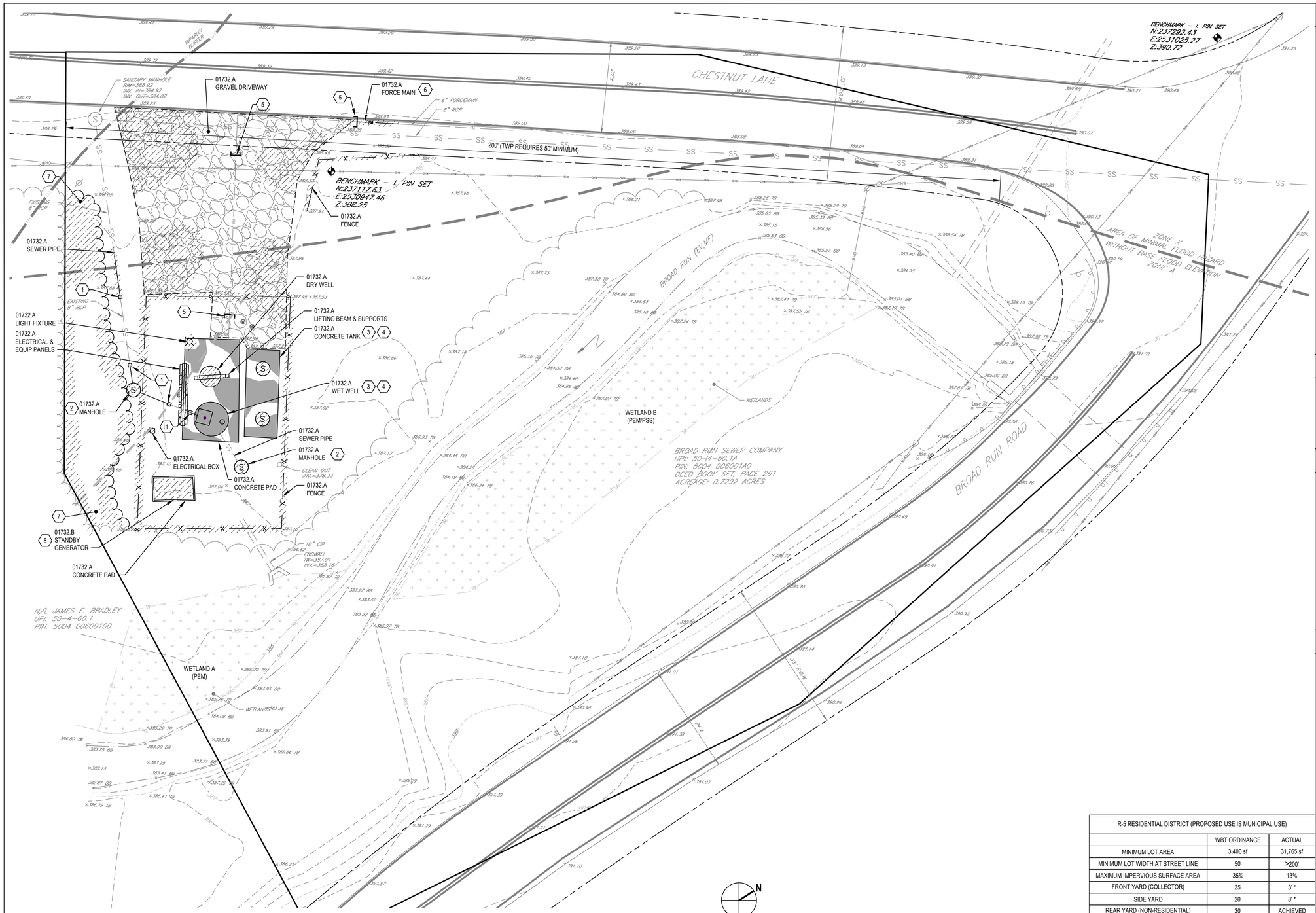
Client: COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
Project: CHESTNUT LANE PUMP STATION IMPROVEMENTS
Project No. 12562338 | Date | Scale: AS SHOWN

Title: SHEET INDEX, GENERAL NOTES AND LEGENDS
Size: ARCH D
Sheet No. G-002

Plot Date: 4 April 2024 - 10:35 AM | Plotted By: Jake Strobert | Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\664\12562338\Digital_Design\ACAD2020\Sheets\General\12562338-G002.dwg



LEGEND

- EXISTING COUNTOUR - MINOR
- EXISTING COUNTOUR - MAJOR
- EXISTING EDGE OF STREAM
- EXISTING WET LANDS
- 100-YEAR FLOOD PLAIN BOUNDARY (FEMA)
- FLOODWAY BOUNDARY (50 FT SETBACK)
- EXISTING OVERHEAD ELECTRIC
- EXISTING SANITARY SEWER
- EXISTING WATER PIPE
- EXISTING FENCE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF ROAD
- EXISTING GUARD RAIL
- EXISTING TREELINE
- EXISTING WATER VALVES
- EXISTING BURIED PIPE
- ITEM TO BE REMOVED
- CONCRETE / MASONRY TO BE REMOVED
- RIPARIAN BUFER

MATERIALS KEYING LEGEND

01732: SELECTIVE DEMOLITION
- .A TO BE REMOVED
- .B TO RE REMOVED AND RELOCATED

SHEET GENERAL NOTES

1. THIS DRAWING HAS BEEN PREPARED TO PROVIDE THE CONTRACTOR WITH A GENERAL SCOPE OF DEMOLITION WORK TO BE REQUIRED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ITEMS THAT MAY EFFECT DEMOLITION COSTS INCLUDING BUT NOT LIMITED TO EXACT EQUIPMENT AND PIPING LOCATIONS, ACTUAL EQUIPMENT AND PIPING SIZES, AND ALL INCIDENTAL EQUIPMENT OR PIPING NOT SHOWN BUT PART OF THE EQUIPMENT INDICATED TO BE REMOVED OR EFFECTING REMOVAL PROCESS.
2. FEMA FLOOD PLAIN BOUNDARY FROM FEDERAL EMERGENCY MANAGEMENT AGENCY DIGITAL FLOOD INSURANCE RATE MAP DATABASE OF CHESTER COUNTY, PENNSYLVANIA.
3. THE USE OF FERTILIZERS, PESTICIDES, AND/OR OTHER CHEMICALS ARE EXPRESSLY PROHIBITED IN THE RIPARIAN BUFFER EXCEPT UNDER CERTAIN CONDITIONS.

SHEET KEYNOTES

1. CONTRACTOR TO PLUG END OF EXISTING PIPE TO BE ABANDONED WITH GROUT ONE FOOT MINIMUM INTO PIPE.
2. CONTRACTOR TO REMOVE EXISTING MANHOLE IN ITS ENTIRETY.
3. PRESSURE WASH WET WELL INTERIOR WITH CLEAN WATER. REMOVE, HANDLE, TRANSPORT, AND DISPOSE OF WET WELL CONTENTS INCLUDING SLUDGE AND SEWAGE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. PRESSURE WASH WET WELL INTERIOR WITH 200 PPM CHLORINE SOLUTION. CHLORINE SOLUTION TO REMAIN IN WET WELL FOR 24 HOURS. REMOVE, HANDLE, TRANSPORT, AND DISPOSE OF ALL WASTEWATER IN THE WET WELL ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
4. CONTRACTOR TO CUT FOUR (4) 12" DRAIN OPENINGS IN EXISTING WALL (WITHIN 12" OF BOTTOM) OF STRUCTURE / MANHOLE AND BACKFILL REMAINING PORTIONS OF STRUCTURE / MANHOLE WITH AASHTO NO. 57 COARSE AGGREGATE. BACKFILL EXCAVATION WITH SUITABLE ONSITE MATERIAL TO 1 FOOT BELOW GRADE, FOLLOWED BY 1 FOOT OF COMPACTED PENNDOT 2A COARSE AGGREGATE.
5. CONTRACTOR TO CUT AND CAP END OF EXISTING PIPE.
6. CONTRACTOR TO REMOVE PORTION OF PIPE AS REQUIRED TO FACILITATE NEW PIPE CONNECTIONS.
7. CONTRACTOR TO CLEAR AND GRUB EXISTING TREES / SHRUBS BETWEEN EXISTING FENCE AND PROPERTY LINE. UNNECESSARY TREE REMOVAL SHALL BE PROHIBITED DURING CONSTRUCTION. PLACE 6" (MIN) OF TOPSOIL. SEED AND MULCH.
8. CONTRACTOR TO REMOVE EXISTING GENERATOR AND STORE ON-SITE FOR PICKUP BY OWNER.

R-5 RESIDENTIAL DISTRICT (PROPOSED USE IS MUNICIPAL USE)		
	WBT ORDINANCE	ACTUAL
MINIMUM LOT AREA	3,400 sf	31,765 sf
MINIMUM LOT WIDTH AT STREET LINE	50'	>200'
MAXIMUM IMPERVIOUS SURFACE AREA	35%	13%
FRONT YARD (COLLECTOR)	25'	3' *
SIDE YARD	20'	8' *
REAR YARD (NON-RESIDENTIAL)	30'	ACHIEVED
BUILDING HEIGHT (MAX)	35'	NO BUILDING
*RELIEF TO HAVE PERMITTED STRUCTURE LOCATED WITHIN THE FLOODPLAIN (ZHB ON 05-19-2023)		
*RELIEF GRANTED BY ZONIG HEARING BOARD ON 05-19-2023.		
TOTAL ACREAGE : 0.7292 ACRES		

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/02/2024

Author S. MATTHEWS | Drafting Check M. WIESTLING | Project Manager C. AMER
Designer D. KNAPTON | Design Check | Project Director M. BISIGNANI

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL
CHARLES WOLF AMER
ENGINEER
PE-044102-R
COMMONWEALTH OF PENNSYLVANIA

GHD Inc.
298 East 5th Street, Suite 1
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www.ghd.com

Client COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
Project CHESTNUT LANE PUMP STATION IMPROVEMENTS

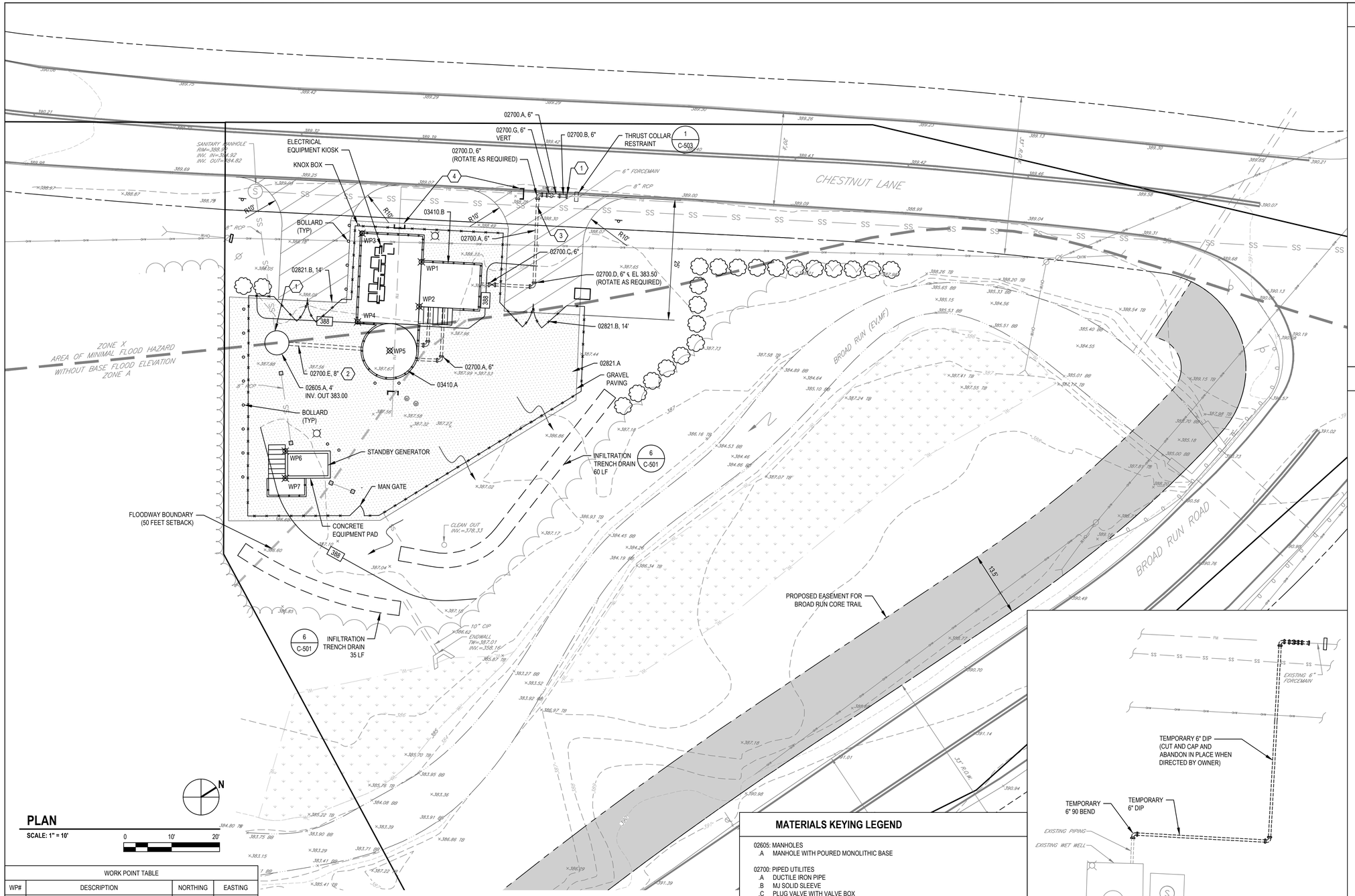
Title EXISTING SITE DEMOLITION PLAN

Size ARCH D

Project No. 12562338 | Date | Scale AS SHOWN

Sheet No. C-101

Plot Date: 4 April 2024 - 10:35 AM
Plotted By: Jake Strobert
Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\564\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-C101.dwg



PLAN

SCALE: 1" = 10'

0 10' 20'

WORK POINT TABLE			
WP#	DESCRIPTION	NORTHING	EASTING
1	CORNER OF VALVE VAULT	237102.3595	2530942.0088
2	CORNER OF VALVE VAULT	237096.9462	2530949.6119
3	CORNER OF ELETRICAL PLATFORM	237095.1325	2530930.3182
4	CORNER OF ELETRICAL PLATFORM	237084.4036	2530945.3894
5	CENTER OF WET WELL	237086.8223	2530954.0650
6	CORNER OF EQUIPMENT PAD	237057.1949	2530959.9900
7	CORNER OF EQUIPMENT PAD	237054.1554	2530964.7818

SHEET KEYNOTES

1. CONTRACTOR TO CONNECT TO EXISTING PIPING. TEST PITS REQUIRED.
2. CONTRACTOR TO INSTALL SEWER PIPE AT 3% SLOPE DOWN TO WET WELL.
3. PROVIDE 1' MINIMUM VERTICAL CLEARANCE AND 4' MINIMUM COVER.
4. CUT AND CAP EXISTING FORCE MAIN.

MATERIALS KEYING LEGEND

02605: MANHOLES
- .A MANHOLE WITH POURED MONOLITHIC BASE

02700: PIPED UTILITES
- .A DUCTILE IRON PIPE
- .B MJ SOLID SLEEVE
- .C PLUG VALVE WITH VALVE BOX
- .D MJ 90 BEND
- .E PVC PIPE
- .G MJ 45 BEND

02821: CHAIN-LINK FENCE AND GATES
- .A CHAIN-LINK FENCE
- .B DOUBLE SWING GATE

03410: PRECAST STRUCTURAL CONCRETE
- .A WET WELL (10'-0" DIA INSIDE)
- .B VALVE VAULT (8'-0" X 11'-0")

TEMPORARY PIPING PLAN

SCALE: 1" = 10'

0 10' 20'

LEGEND

- EXISTING COUNTOUR - MINOR (471)
- EXISTING COUNTOUR - MAJOR (472)
- EXISTING EDGE OF STREAM
- EXISTING WET LANDS (WL)
- 100-YEAR FLOOD PLAIN BOUNDARY (FEMA)
- FLOODWAY BOUNDARY (50 FT SETBACK)
- EXISTING OVERHEAD ELECTRIC (OHW)
- EXISTING SANITARY SEWER (SS)
- EXISTING WATER PIPE (W)
- EXISTING FENCE (X)
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF ROAD
- EXISTING GUARD RAIL
- EXISTING TREELINE
- EXISTING WATER VALVES
- EXISTING BURIED PIPE
- NEW STRUCTURE
- NEW GRAVEL PAVING
- NEW DRIVEWAY PAVED SURFACE
- NEW MINOR CONTOUR (388)
- NEW FENCE
- FLOW ARROW

SHEET GENERAL NOTES

1. FEMA FLOOD PLAIN BOUNDARY FROM FEDERAL EMERGENCY MANAGEMENT AGENCY DIGITAL FLOOD INSURANCE RATE MAP DATABASE OF CHESTER COUNTY, PENNSYLVANIA.
2. THE SITE IS NOT SUPPLIED WITH PUBLIC OR PRIVATE WATER.
3. THE CONTRACTOR SHALL ONLY GRADE/EXPOSE THE SMALLEST PRACTICAL AREA OF LAND AT ANY ONE TIME DURING CONSTRUCTION.
4. WHEN LAND IS EXPOSED DURING CONSTRUCTION, THE EXPOSURE SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
5. DURING EXCAVATION AND GRADING OPERATIONS, THE CONTRACTOR EMPLOY MEASURES FOR DUST CONTROL TO PREVENT PARTICULATE MATTER FROM BECOMING AIRBORNE.
6. DUST CONTROL MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, TIRE CLEANING, WATER OR CHEMICAL DUST SUPPRESSANTS, AND PROMPT REMOVAL OF EARTH FROM PAVED SURFACES.
7. EXCAVATIONS AND GRADING SHALL NOT ENCROACH UPON THE WETLANDS AND BROAD RUN.
8. THE SURFACE SHALL BE GRADED TO DRAIN AND PREVENT SURFACE WATER FROM PONDING.
9. THE APPLICANT/CONTRACTOR SHALL CONTACT THE TOWNSHIP ENGINEER AT 484-880-7342 A MINIMUM OF 48 HOURS PRIOR TO THE START OF WORK ON THE INFILTRATION TRENCH TO SCHEDULE AN INSPECTION OF THE CONSTRUCTION.
10. CONTRACTOR SHALL MATCH FINAL GRADE TO EXISTING GRADE FOR ALL IMPROVED AREAS INCLUDING PAVEMENT, GRAVEL AND TOPSOIL.
11. BURIED DUCTILE IRON PIPES SHALL BE RESTRAINED WITH RESTRAINING GASKETS ON ALL PUSH ON JOINTS.
12. DUCTILE IRON FITTINGS AND VALVES SHALL BE MECHANICAL JOINT, UNLESS OTHERWISE NOTED. MECHANICAL JOINT FITTINGS SHALL BE RESTRAINED WITH BOTH CONCRETE THRUST BLOCKS AND MEGALUG RETAINER GLANDS. MECHANICAL JOINT VALVES SHALL BE RESTRAINED WITH MEGALUG RETAINER GLANDS.
13. CONTRACTOR TO POLYWRAP ALL BURIED DUCTILE IRON PIPE, FITTINGS AND VALVES.
14. EXCAVATED PIPING SHALL BE CONTINUOUSLY SUPPORTED AT ALL TIMES.
15. INSTALL PLUG VALVES SO THAT THE PLUG SHAFT IS HORIZONTAL. PLUG IS AT THE UPSTREAM END OF THE VALVE WHEN CLOSED, AND THE PLUG IS IN THE UPPER PART OF THE VALVE WHEN OPEN.
16. ON A WEEKLY BASIS DURING ROUTINE MONITORING SITE VISITS TO THE PUMP STATION, REMOVE TRASH AND VEGETATIVE DEBRIS THAT IS ABUTTING AND/OR IS CAUGHT IN THE FENCE.
17. INSPECT THE FENCE AFTER FLOOD EVENTS AND REMOVE ANY DEBRIS THAT MAY HAVE BEEN DEPOSITED ADJACENT TO OR IN THE FENCE.
18. KEEP THE FENCE FREE OF VINES AND WOODY VEGETATION BY REMOVING UNWANTED GROWTH FROM THE FENCE ON A BIANNUAL BASIS AND AS NEEDED.
19. WASTE DISPOSAL AND RECYCLING:
    - REMOVE AND PROPERLY DISPOSE OF LITTER IN THE REGULAR TRASH.
    - DISPOSE OF VEGETATIVE DEBRIS AND TRIMMINGS IN A LOCAL COMPOSTING FACILITY.
    - DISPOSE OF HAND-PULLED NOXIOUS OR INVASIVE WEEDS IN ACCORDANCE WITH LOCAL RECOMMENDATIONS. IN THE ABSENCE OF LOCAL RECOMMENDATIONS, PLACE THEM IN BLACK PLASTIC BAGS AND LEAVE THEM IN THE SUN FOR SEVERAL DAYS TO ALLOW THE HEAT TO KILL SEEDS AND ANY ROOTS. FOLLOWING THIS, DISPOSE OF IN THE REGULAR TRASH.
20. THE OWNER GRANTS A BLANKET EASEMENT FOR THE ENTIRE PROPERTY TO WEST BRADFORD TOWNSHIP FOR THE PURPOSE OF A DRAINAGE EASEMENT AND FOR MAINTAINING THE STORMWATER MANAGEMENT FACILITIES, INCLUDING THE INFILTRATION TRENCH, IN THE EVENT THAT THE OWNER DOES NOT PROPERLY MAINTAIN SUCH FACILITIES.
21. THE OWNER/CONTRACTOR SHALL CONFIRM THAT THE FIRST 25 FEET OF THE PROPOSED, PAVED DRIVEWAY SHALL NOT EXCEED 5 PERCENT GRADE.

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author **S. MATTHEWS** Drafting Check **M. WIESTLING** Project Manager **C. AMER**

Designer **D. KNAPTON** Design Check Project Director **M. BISIGNANI**

Community Utilities of Pennsylvania

Bar is one inch on original size sheet

0 1"

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Client **COMMUNITY UTILITIES OF PENNSYLVANIA, INC.**

Project **CHESTNUT LANE PUMP STATION IMPROVEMENTS**

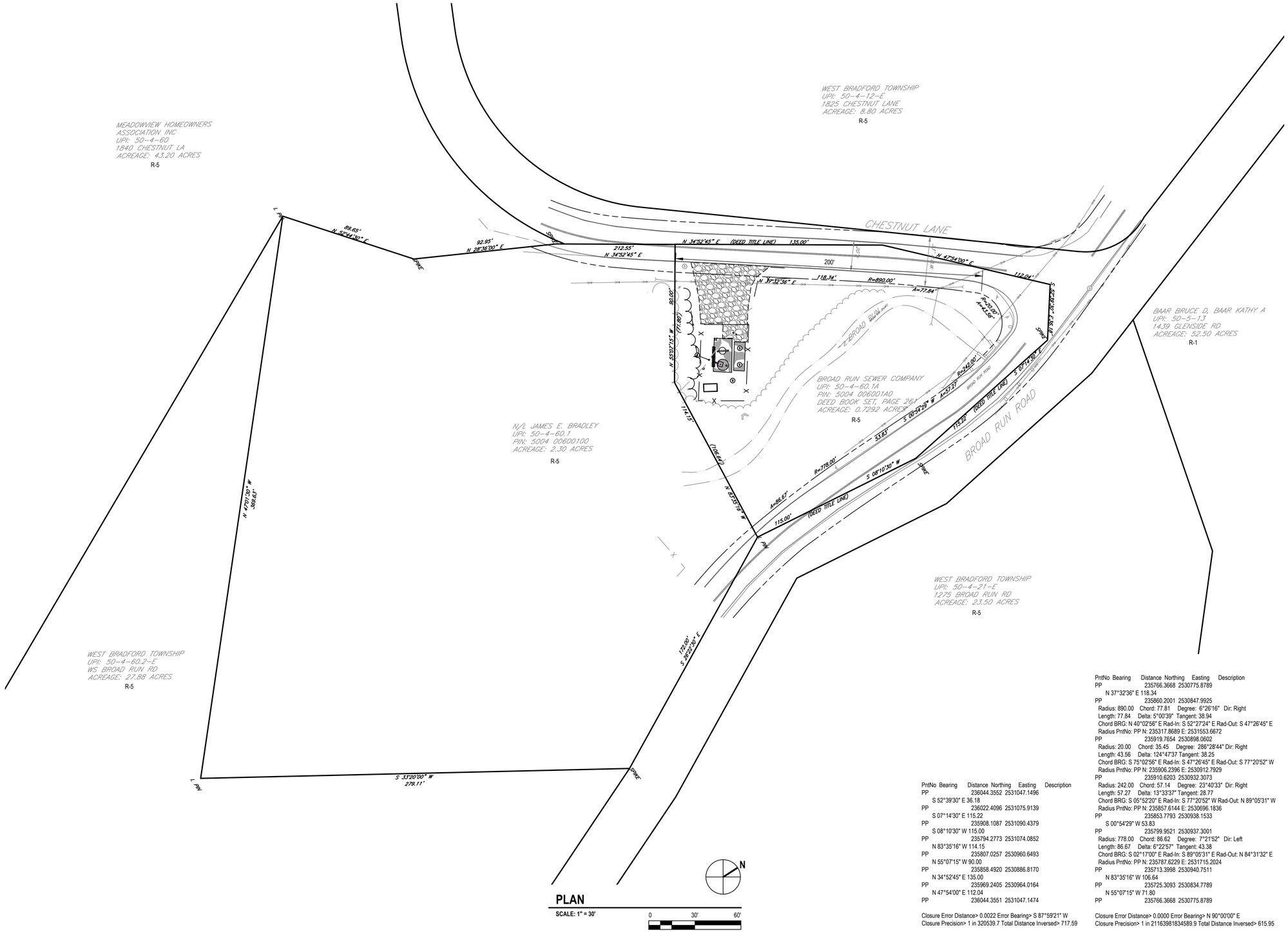
Title **SITE PLAN AND PROPOSED GRADING**

Size **ARCH D**

Project No. **12562338** Date Scale **AS SHOWN**

Sheet No. **C-102**

Plot Date: 4 April 2024 - 10:50 AM Plotted By: Jake Strobert Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\664\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-C102.dwg



PntNo Bearing Distance Northing Easting Description
PP 236044.3552 2531047.1496
S 52°39'30" E 36.18
PP 236022.4096 2531075.9139
S 07°14'30" E 115.22
PP 235908.1087 2531090.4379
S 08°10'30" W 115.00
PP 235794.2773 2531074.0852
N 83°35'16" W 114.15
PP 235807.0257 2530960.6493
N 55°07'15" W 90.00
PP 235858.4920 2530886.8170
N 34°52'45" E 135.00
PP 235969.2405 2530964.0164
N 47°54'00" E 112.04
PP 236044.3551 2531047.1474

Closure Error Distance> 0.0022 Error Bearing> S 87°59'21" W
Closure Precision> 1 in 320539.7 Total Distance Inversed> 717.59

Area: 31766 Sq.Ft., 0.7292 Acres, 3529.54 Sq. Yrds

PntNo Bearing Distance Northing Easting Description
PP 235766.3668 2530775.8789
N 37°32'36" E 118.34
PP 235860.2001 2530847.9925
Radius: 890.00 Chord: 77.81 Degree: 6°26'16" Dir: Right
Length: 77.84 Delta: 5°00'39" Tangent: 38.94
Chord BRG: N 40°02'56" E Rad-In: S 52°27'24" E Rad-Out: S 47°26'45" E
Radius PntNo: PP N: 235317.8689 E: 2531553.6672
PP 235919.7654 2530898.0602
Radius: 20.00 Chord: 35.45 Degree: 286°28'44" Dir: Right
Length: 43.56 Delta: 124°47'37 Tangent: 38.25
Chord BRG: S 75°02'56" E Rad-In: S 47°26'45" E Rad-Out: S 77°20'52" W
Radius PntNo: PP N: 235906.2396 E: 2530912.7929
PP 235910.6203 2530932.3073
Radius: 242.00 Chord: 57.14 Degree: 23°40'33" Dir: Right
Length: 57.27 Delta: 13°33'37" Tangent: 28.77
Chord BRG: S 05°52'20" E Rad-In: S 77°20'52" W Rad-Out: N 89°05'31" W
Radius PntNo: PP N: 235857.6144 E: 2530696.1836
PP 235853.7793 2530938.1533
S 00°54'29" W 53.83
PP 235799.9521 2530937.3001
Radius: 778.00 Chord: 86.62 Degree: 7°21'52" Dir: Left
Length: 86.67 Delta: 6°22'57" Tangent: 43.38
Chord BRG: S 02°17'00" E Rad-In: S 89°05'31" E Rad-Out: N 84°31'32" E
Radius PntNo: PP N: 235787.6229 E: 2531715.2024
PP 235713.3998 2530940.7511
N 83°35'16" W 106.64
PP 235725.3093 2530834.7789
N 55°07'15" W 71.80
PP 235766.3668 2530775.8789

Closure Error Distance> 0.0000 Error Bearing> N 90°00'00" E
Closure Precision> 1 in 211639818345 89.9 Total Distance Inversed> 615.95

Area: 21763 Sq.Ft., 0.4996 Acres, 2418.10 Sq. Yrds

LEGEND

- EXISTING COUNTOUR - MINOR
- EXISTING COUNTOUR - MAJOR
- EXISTING EDGE OF STREAM
- EXISTING WET LANDS
- 100-YEAR FLOOD PLAIN BOUNDARY (FEMA)
- FLOODWAY BOUNDARY (50 FT SETBACK)
- EXISTING OVERHEAD ELECTRIC
- EXISTING SANITARY SEWER
- EXISTING WATER PIPE
- EXISTING FENCE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF ROAD
- EXISTING GUARD RAIL
- EXISTING TREELINE
- EXISTING WATER VALVES
- EXISTING BURIED PIPE
- ITEM TO BE REMOVED
- CONCRETE / MASONRY TO BE REMOVED

SHEET GENERAL NOTES

1. ALL SHOWN PROPERTIES ARE LOCATED WITHIN THE BROAD RUN WATERSHED.

SHEET KEYNOTES

1.

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author **S. MATTHEWS** Drafting Check **M. WIESTLING** Project Manager **C. AMER**
Designer **D. KNAPTON** Design Check Project Director **M. BISIGNANI**

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

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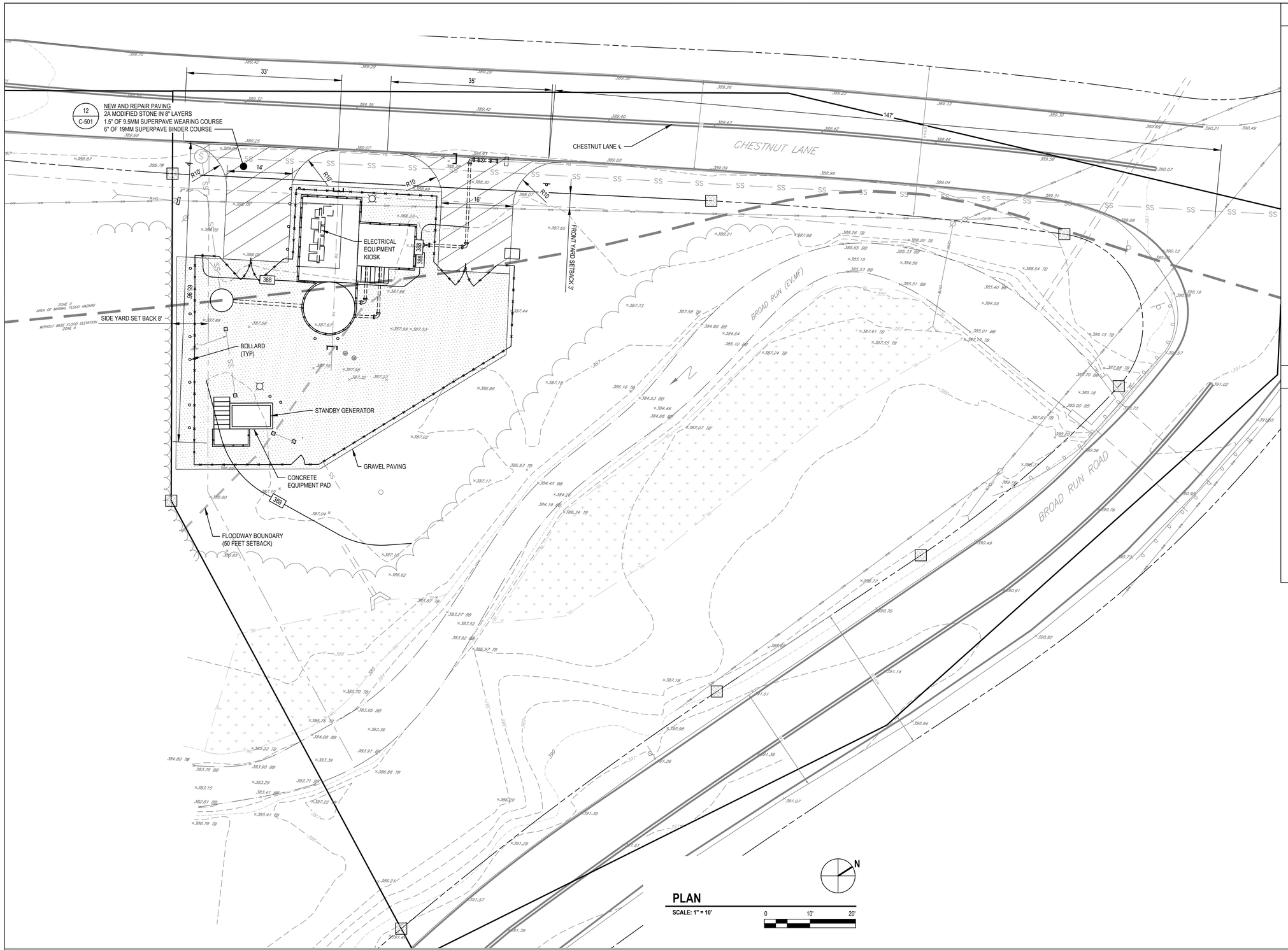
Client **COMMUNITY UTILITIES OF PENNSYLVANIA, INC.**
Project **CHESTNUT LANE PUMP STATION IMPROVEMENTS**

Title **ADJOINING PROPERTIES PLAN**
Size **ARCH D**

Project No. **12562338** Date Scale **AS SHOWN**
Sheet No. **C-103**

Plot Date: 4 April 2024 - 10:36 AM Plotted By: Jake Strobert Filename: \\ghdnetghd1\US\Bloomsburg\Projects\564\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-C103.dwg



PLAN

SCALE: 1" = 10'

0 10' 20'

LEGEND

- EXISTING COUNTOUR - MINOR
- EXISTING COUNTOUR - MAJOR
- EXISTING EDGE OF STREAM
- EXISTING WET LANDS
- 100-YEAR FLOOD PLAIN BOUNDARY (FEMA)
- FLOODWAY BOUNDARY (50 FT SETBACK)
- EXISTING OVERHEAD ELECTRIC
- EXISTING SANITARY SEWER
- EXISTING WATER PIPE
- EXISTING FENCE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF ROAD
- EXISTING GUARD RAIL
- EXISTING TREELINE
- EXISTING WATER VALVES
- EXISTING BURIED PIPE
- NEW STRUCTURE
- NEW GRAVEL PAVING
- NEW MINOR CONTOUR
- NEW FENCE
- EXISTING WETLANDS
- MONUMENT TO BE SET

SHEET GENERAL NOTES

1. PAVING SHALL CONSIST OF A BASE COURSE OF PADOT 3A STONE COMPACTED TO FOUR INCHES AND A WEARING COURSE OF 1.5 INCHES OF ID-2A BITUMINOUS CONCRETE.
2. WEST BRADFORD TOWNSHIP PROVIDED AN ORDER DATED MAY 25, 2023 THAT GRANTED VARIANCES FOR THE FRONT YARD AND SIDE YARD SETBACKS OF 3 FEET AND 8 FEET, RESPECTIVELY.
3. WEST BRADFORD TOWNSHIP PROVIDED AN ORDER DATED MAY 25, 2023 THAT GRANTED VARIANCES FOR PERMITTING PROPOSED STRUCTURES WITHIN THE FLOODPLAIN.

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author	S. MATTHEWS	Drafting Check	M. WIESTLING
Designer	D. KNAPTON	Design Check	
Project Manager	C. AMER	Project Director	M. BISIGNANI

Community Utilities of Pennsylvania

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Client: COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
Project: CHESTNUT LANE PUMP STATION IMPROVEMENTS

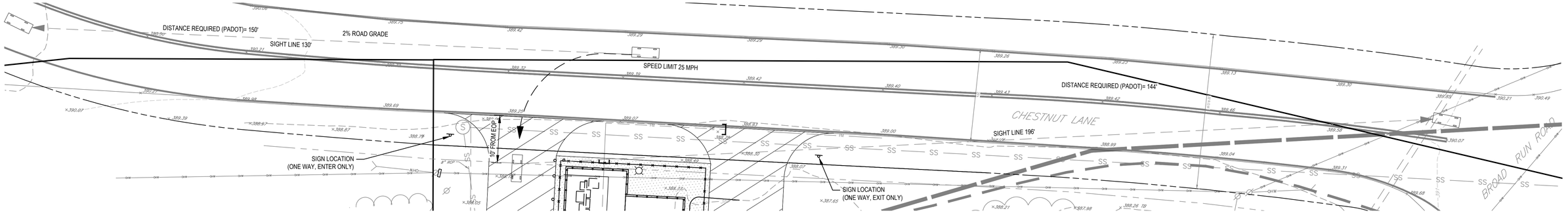
Title: SETBACKS

Size: ARCH D

Project No.	Date	Scale
12562338		AS SHOWN

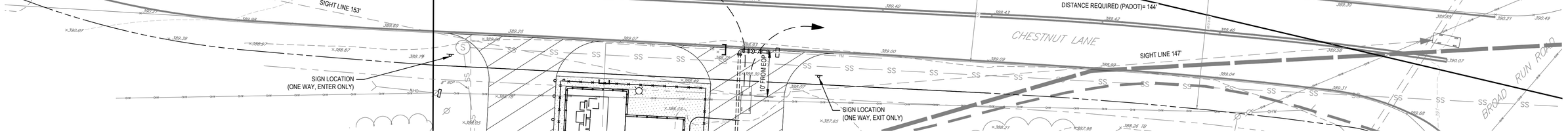
Sheet No. C-201

Plot Date: 4 April 2024 - 10:38 AM
Plotted By: Jake Strobert
Filename: \\ghdnetgha\US\Bloomsburg\Projects\564\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-C201.dwg



WESTERN PLAN

SCALE: 1" = 10'



EASTERN PLAN

SCALE: 1" = 10'

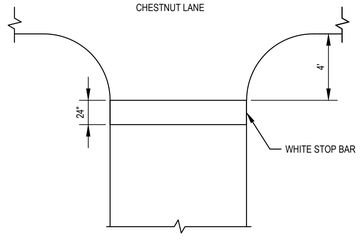
PADOT FORMULA SIGHT DISTANCE TABLE

Speed (V) (Miles Per Hour)	Average Grade (G) (Percent)										
	Use plus grades when approaching vehicle is travelling upgrade.										
	0.0	+1.0	+2.0	+3.0	+4.0	+5.0	+6.0	+7.0	+8.0	+9.0	+10.0
25	147	145	144	143	142	140	139	138	137	136	135
30	196	194	191	189	187	185	183	182	180	178	177
35	249	245	242	239	236	233	231	228	226	224	221
40	314	309	304	299	295	291	287	284	280	277	274
45	383	376	370	364	358	353	348	343	339	334	330
50	462	453	444	436	429	422	415	409	403	397	392
55	538	527	517	508	499	490	482	475	468	461	454
	Use negative grades when approaching vehicle is travelling downgrade.										
	0.0	-1.0	-2.0	-3.0	-4.0	-5.0	-6.0	-7.0	-8.0	-9.0	-10.0
25	147	148	150	151	153	155	157	159	161	164	166
30	196	199	201	204	207	210	214	217	221	226	230
35	249	252	256	260	265	269	275	280	286	292	299
40	314	319	325	331	338	345	352	360	369	379	389
45	383	390	398	406	415	425	435	447	459	472	487
50	462	471	481	492	504	517	531	546	563	581	600
55	538	550	562	576	590	606	622	641	661	682	706

NOTE : SIGNS SHALL BE 18" x 24" IN SIZE

TYPICAL SIGNAGE

SCALE: NO SCALE



NOTES:
1. STOP BAR SHALL BE ACROSS FULL WIDTH OF DRIVEWAY.
2. PAINT AND PLACEMENT OF STOP BAR SHALL MEET PENNDOT REGULATIONS.

EASTERN DRIVEWAY

SCALE: NO SCALE

SHEET GENERAL NOTES

1. NO BUILDING OR OBSTRUCTION THAT WOULD OBSCURE THE VISION OF A MOTORIST SHALL BE PERMITTED WITHIN THE CLEAR SIGHT TRIANGLES.
2. THE OWNER SHALL INSTALL SIGNS ("ONE-WAY" AND "DO NOT ENTER") AND PAVEMENT MARKINGS (ARROWS AND STOP BARS) AT EACH DRIVEWAY ENTRANCE FOR THE ONE-WAY DRIVEWAY OPERATION.

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author S. MATTHEWS | Drafting Check M. WIESTLING | Project Manager C. AMER
Designer D. KNAPTON | Design Check | Project Director M. BISIGNANI

Community Utilities of Pennsylvania

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0 1"

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Client: COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
Project: CHESTNUT LANE PUMP STATION IMPROVEMENTS

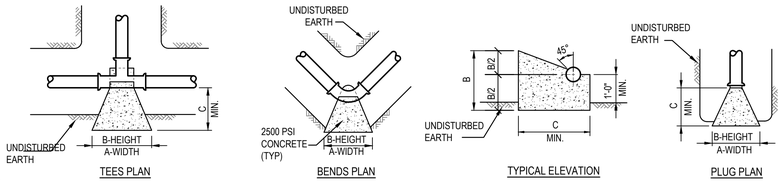
Title: DRIVEWAY SIGHT DISTANCE MEASUREMENTS PLAN

Size: ARCH D

Project No. 12562338 | Date | Scale: AS SHOWN

Sheet No. C-401

Plot Date: 4 April 2024 - 10:38 AM | Plotted By: Jake Strobert | Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\664\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-C201.dwg



TEES PLAN | BENDS PLAN | TYPICAL ELEVATION | PLUG PLAN

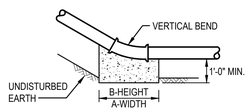
REACTION BACKINGS INFORMATION

PIPE DIAMETER (INCHES)	11.25°			22.5°			45°			90°			PLUG OR TEE		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
4	2'-0"	2'-0"	1'-9"	2'-0"	2'-0"	1'-9"	2'-0"	2'-0"	1'-9"	2'-0"	2'-0"	1'-9"	2'-0"	2'-0"	1'-9"
6	2'-6"	2'-6"	2'-0"	2'-6"	2'-6"	2'-0"	2'-6"	2'-6"	2'-0"	3'-0"	2'-6"	2'-0"	2'-6"	2'-6"	2'-0"
8	3'-0"	2'-6"	2'-3"	3'-0"	2'-6"	2'-3"	3'-0"	2'-6"	2'-3"	5'-0"	3'-0"	2'-3"	3'-6"	2'-6"	2'-3"
10	3'-0"	3'-0"	2'-6"	3'-0"	3'-0"	2'-6"	3'-6"	3'-0"	2'-6"	5'-0"	3'-0"	2'-0"	3'-6"	3'-0"	2'-6"
12	3'-0"	3'-0"	2'-6"	3'-0"	3'-0"	2'-6"	3'-6"	3'-0"	2'-6"	5'-0"	3'-6"	2'-6"	4'-0"	3'-6"	2'-6"
16	4'-0"	3'-6"	2'-9"	4'-0"	4'-0"	2'-9"	4'-6"	4'-0"	2'-9"	7'-6"	5'-0"	2'-9"	5'-6"	5'-0"	2'-9"
18	4'-0"	4'-0"	3'-0"	4'-0"	4'-0"	3'-0"	5'-0"	4'-0"	3'-0"	7'-6"	5'-6"	3'-0"	6'-0"	5'-0"	3'-0"
20	4'-0"	4'-0"	3'-3"	4'-0"	4'-0"	3'-3"	6'-0"	4'-6"	3'-3"	8'-0"	6'-6"	3'-3"	6'-6"	5'-6"	3'-3"
24	5'-0"	4'-6"	3'-6"	5'-0"	4'-6"	3'-6"	6'-6"	5'-6"	3'-6"	10'-0"	7'-0"	3'-6"	7'-0"	6'-6"	3'-6"

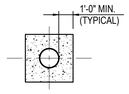
FITTING SIZE (INCHES)	Cu Yd OF CONCRETE (MIN) FOR VERTICAL BENDS - DOWN		
	11.25°	22.5°	45°
4	0.1	0.3	0.5
6	0.3	0.5	1.1
8	0.5	0.9	1.8
10	0.7	1.4	2.7
12	1.0	2.0	3.9
16	1.7	3.4	6.7
18	2.0	4.0	7.9
20	2.7	5.3	10.4
24	3.8	7.6	14.8

NOTES:

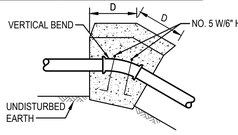
A. ALL BLOCKING SHALL BE POURED AGAINST FIRM, UNDISTURBED SOIL.
B. BEARING AREA AT FITTINGS NOT GIVEN IN BEARING TABLE SHALL BE DIRECTED BY THE ENGINEEER.
C. WHEN POURING AGAINST PLUGS AND BLIND FLANGES, SET A PIECE OF 3 MIL PLASTIC AGAINST FITTING TO KEEP CONCRETE OFF BOLTS. ALL MJ FITTINGS TO BE POLYWRAPPED PRIOR TO POURING REACTION BACKINGS.
D. LAYOUT TO BE APPROVED BY ENGINEER PRIOR TO CONCRETE POUR.



VERTICAL REACTION BACKING DETAIL

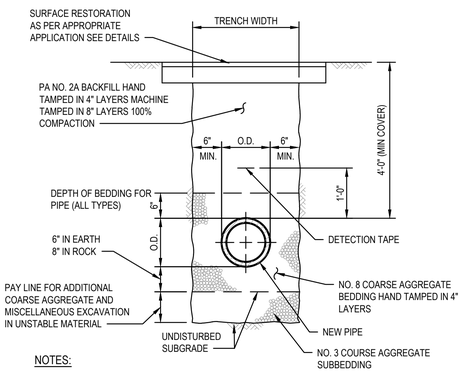


CONCRETE ENCASEMENT DETAIL



VERTICAL REACTION BACKING DETAIL

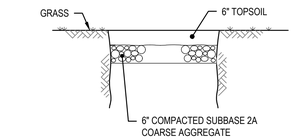
1 THRUST BLOCK DETAIL
NO SCALE



NOTES:

1. ALL STONE GRADATIONS ARE AASHTO CLASSIFICATION.
2. PAVEMENT MUST BE SAW-CUT FOR TRENCHING AND AGAIN FOR 1 FOOT CUTBACK AT FINAL RESTORATION.

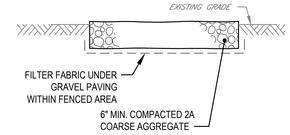
2 TRENCH DETAIL OUTSIDE TOWNSHIP RIGHT-OF-WAY
NO SCALE



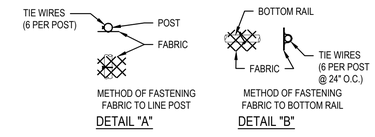
NOTES:

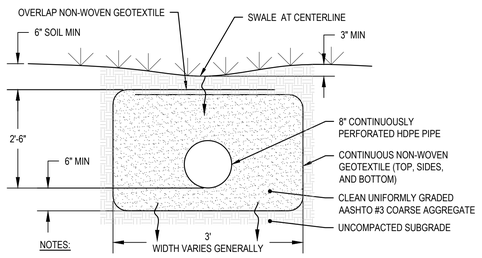
A. FOR LAWN RESTORATION WITHIN 3'-0" OF PAVED AREAS, PROVIDE COMPACTED 2A COURSE AGGREGATE.

3 LAWN RESTORATION DETAIL
NO SCALE



4 GRAVEL PAVING DETAIL
NO SCALE

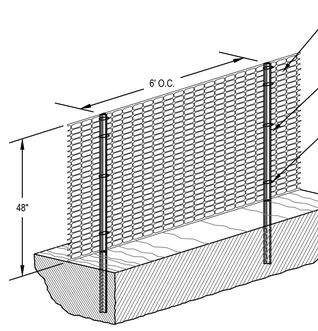




NOTES:

1. PROTECT INFILTRATION TRENCH AREA FROM COMPACTION DURING AND AFTER CONSTRUCTION.
2. CONSTRUCT INFILTRATION TRENCHES AFTER ALL EARTH DISTURBANCE ASSOCIATED WITH THE PUMP STATION PROJECT IS STABILIZED TO AVOID CLOGGING.
3. INFILTRATION TRENCHES ARE 35 AND 60 FEET.
4. THE APPLICANT/CONTRACTOR SHALL CONTACT THE TOWNSHIP ENGINEER AT 484-880-7342 A MINIMUM OF 48 HOURS PRIOR TO THE START OF WORK ON THE INFILTRATION TRENCH TO SCHEDULE AN INSPECTION OF THE CONSTRUCTION.

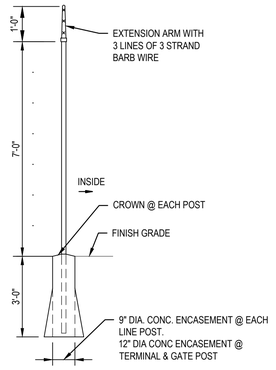
5 INFILTRATION TRENCH
NO SCALE



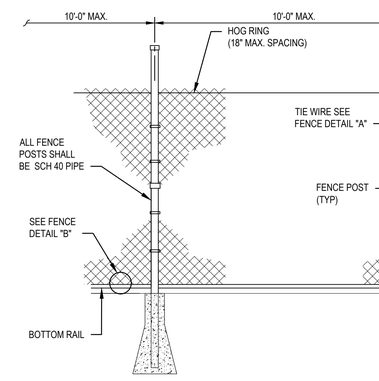
NOTES:

1. THE FENCE SHALL BE ATTACHED TO SIX-FOOT HIGH POSTS (TWO INCHES STEEL "U"CHANNEL.) SET INTO THE GROUND AT A MINIMUM OF SIX-FOOT INTERVALS.
2. THE FENCE SHALL BE ATTACHED TO EACH POST IN AT LEAST THREE PLACES, AND ITS BOTTOM SHALL BE PLACED THREE INCHES ABOVE GROUND HEIGHT.
3. THE FENCING MUST REMAIN IN PLACE DURING ALL PHASES OF CONSTRUCTION; ANY CHANGE OF THE FENCING MUST BE APPROVED BY AN AUTHORIZED REPRESENTATIVE.
4. INSTALL FENCE AROUND OPEN EXCAVATIONS FOR THE INFILTRATION BED, TRENCHES, AND AS NECESSARY TO PROTECT RESOURCES, RESTRICT ACCESS, AND LIMIT DISTURBANCE.

6 HIGH VISIBILITY CONSTRUCTION FENCE
NO SCALE

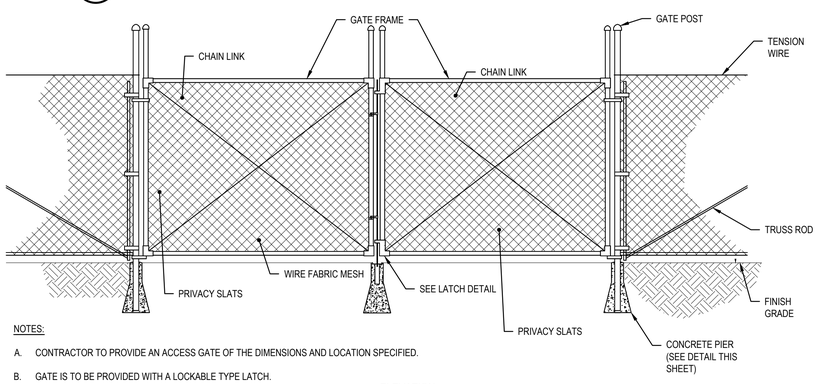


7 FENCE POST DETAIL
NO SCALE



NOTE: THE CHAIN LINK FENCE FACING CHESTNUT LANE SHALL HAVE OPAQUE SLATS INTER WOVEN INTO THE WIRE FABRIC MESH TO SCREEN THE PUMP STATION.

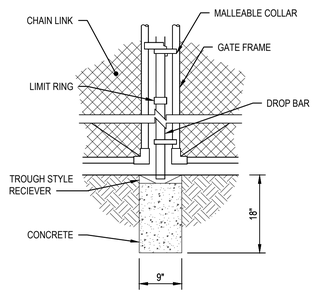
8 CHAIN-LINK FENCE DETAIL
NO SCALE



NOTES:

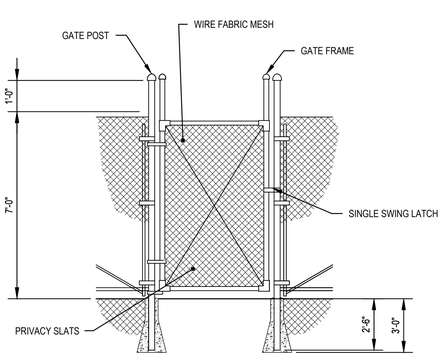
A. CONTRACTOR TO PROVIDE AN ACCESS GATE OF THE DIMENSIONS AND LOCATION SPECIFIED.
B. GATE IS TO BE PROVIDED WITH A LOCKABLE TYPE LATCH.

ELEVATION

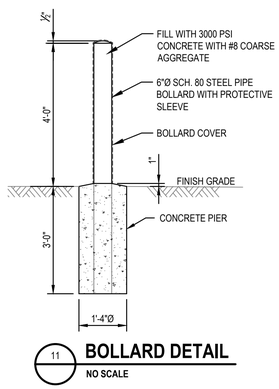


LATCH

9 CHAIN-LINK FENCE - DOUBLE SWING GATE DETAIL
NO SCALE



10 PERSONNEL GATE DETAIL
NO SCALE



11 BOLLARD DETAIL
NO SCALE

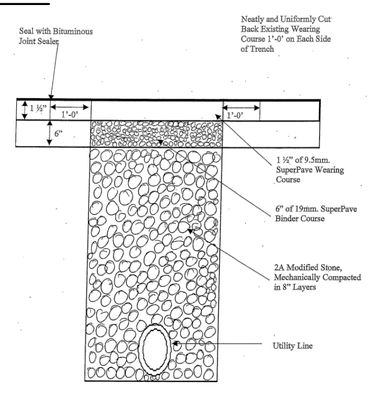


Exhibit "A"

12 WEST BRADFORD TOWNSHIP TRENCH RESTORATION DETAIL
NO SCALE

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author **E. CAMACHO** | Drafting Check **M. WIESTLING** | Project Manager **C. AMER**
Designer **D. KNAPTON** | Design Check | Project Director **M. BISIGNANI**

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL CHARLES WOLF AMER ENGINEER PE-044102-R COMMONWEALTH OF PENNSYLVANIA

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Client **COMMUNITY UTILITIES OF PENNSYLVANIA, INC.**
Project **CHESTNUT LANE PUMP STATION IMPROVEMENTS**

Title **CIVIL DETAILS 1**

Size **ARCH D**

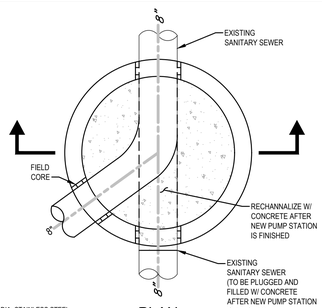
Project No. **12562338** | Date | Scale **AS SHOWN**

Sheet No. **C-501**

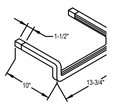
Plot Date: 4 April 2024 - 10:39 AM | Plotted By: Jake Strobert | Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\564\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-C501.dwg

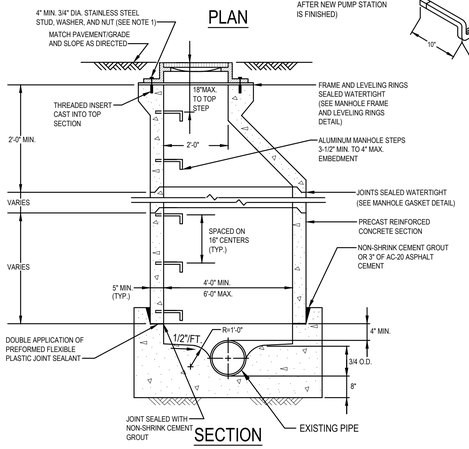
NOTES:

1. BOLTING OF MANHOLE FRAME AND COVER NOT REQUIRED FOR MANHOLES INSTALLED IN PAVED SURFACES.
2. 3/4" DIA. STAINLESS STEEL EXPANSION ANCHOR BOLTS MAY BE USED IN PLACE OF THREADED STUDS AND INSERTS.
3. MANHOLE THREADED INSERT SPACING TO MATCH HOLE CENTER SPACING ON SPECIFIED FRAME AND COVER FOR EACH MANHOLE.
4. ALL STONE GRADATIONS ARE AASHTO CLASSIFICATION.
5. PIPES SHALL PROTRUDE 2" INSIDE MANHOLE WALL.
6. ALL MANHOLES TO BE PROVIDED WITH MANHOLE DISHES.



PLAN

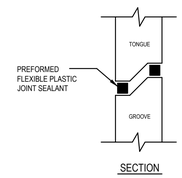




SECTION

1 PRECAST CONCRETE MANHOLE WITH POURED MONOLITHIC CONCRETE BASE

NO SCALE

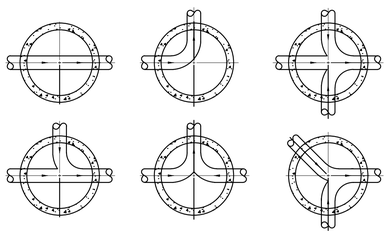


SECTION

PRECAST CONCRETE MANHOLE GASKET SECTION

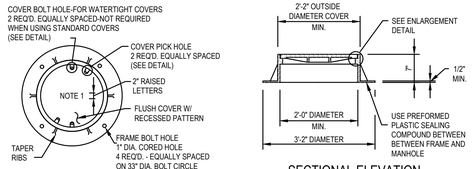
5 MANHOLE FRAME AND LEVELING RINGS

NO SCALE



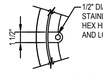
8 TYPICAL PLAN OF MANHOLE CHANNELS

NO SCALE



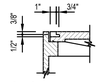
PLAN

SECTIONAL ELEVATION

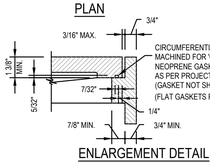


PLAN

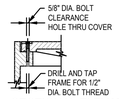
PLAN



SECTIONAL ELEVATION
COVER PICK HOLE



ENLARGEMENT DETAIL



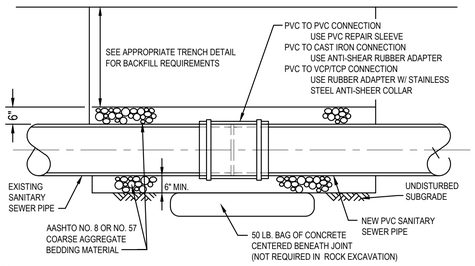
SECTIONAL ELEVATION
COVER BOLT HOLE

NOTES:

1. LETTERING SHALL BE "SEWER" FOR INFLUENT SEWER.
2. ALL MANHOLE FRAMES AND COVERS SHALL BE FOR HEAVY DUTY TRAFFIC, AASHTO HIGHWAY LOADING CLASS HS-20.
3. USE NEENAH, EAST JORDAN IRON WORKS, OR APPROVED EQUIVALENT.
4. APPLY LUBRICANT TO COVER BOLTS. USE 20 - 30 FT/LBS. MAXIMUM TORQUE.
5. APPLY ANTI-SEIZE COMPOUND TO ALL THREADED SURFACES.

2 HEAVY DUTY MANHOLE FRAME AND COVER

NO SCALE

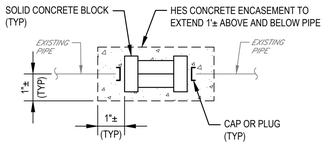


NOTES:

1. RECONNECTIONS TO BE AIR TESTED IN ACCORDANCE WITH SPECIFICATIONS.
2. JOINT COUPLINGS TO BE SMITH-BLAIR OR APPROVED EQUAL.

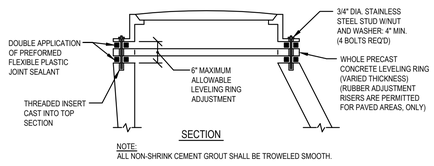
3 PIPE CONNECTION

NO SCALE



6 CUT AND CAP DETAIL

NO SCALE

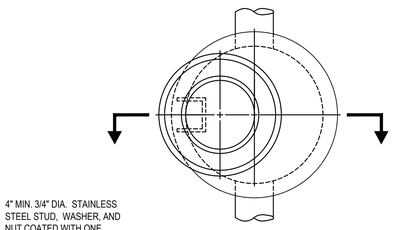


SECTION

NOTE:
ALL NON-SHRINK CEMENT GROUT SHALL BE TROWELED SMOOTH.

9 MANHOLE GASKETS, LEVELING RINGS AND BOLTED FRAME DETAILS

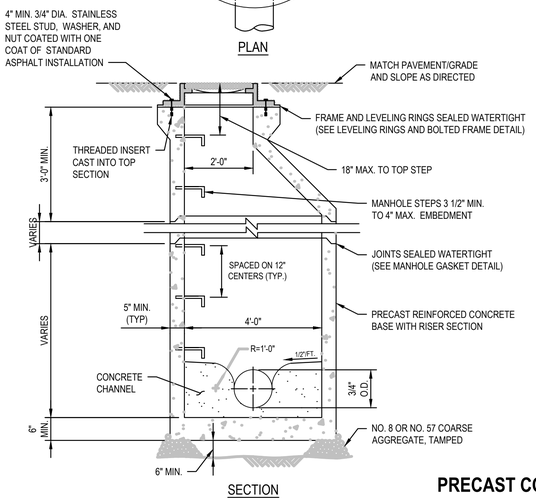
NO SCALE



PLAN

NOTES:

1. BOLTING OF MANHOLE FRAME AND COVER NOT REQUIRED FOR MANHOLES INSTALLED IN PAVED SURFACES.
2. ALL STONE GRADATIONS ARE AASHTO CLASSIFICATION.
3. PIPES SHALL PROTRUDE 2" INSIDE MANHOLE WALL.
4. MANHOLE FRAMES SHALL BE SET WITH PREFORMED PLASTIC GASKET (RUB-R-NEK) PRIOR TO RESTORATION TO PREVENT FILTRATION.



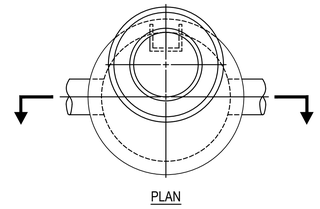
SECTION

4 PRECAST CONCRETE MANHOLE WITH PRECAST CONCRETE BASE

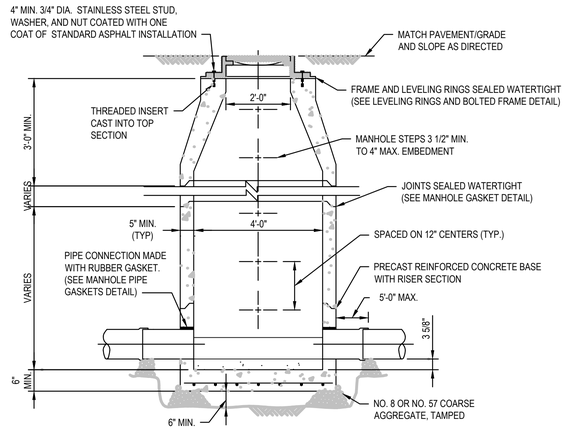
NO SCALE

NOTES:

1. BOLTING OF MANHOLE FRAME AND COVER NOT REQUIRED FOR MANHOLES INSTALLED IN PAVED SURFACES.
2. ALL STONE GRADATIONS ARE AASHTO CLASSIFICATION.
3. PIPES SHALL PROTRUDE 2" INSIDE MANHOLE WALL.
4. MANHOLE FRAMES SHALL BE SET WITH PREFORMED PLASTIC GASKET (RUB-R-NEK) PRIOR TO RESTORATION TO PREVENT FILTRATION.



PLAN



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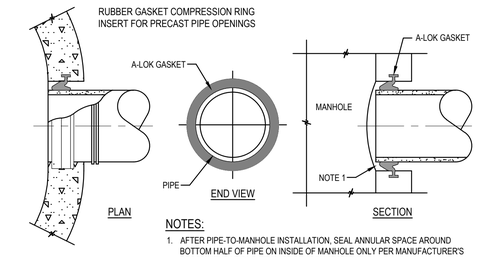
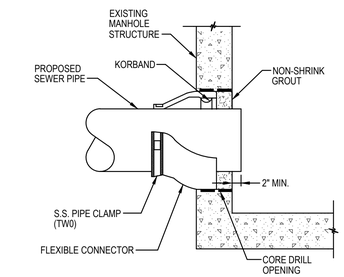


NOTES:

1. AFTER PIPE-TO-MANHOLE INSTALLATION, SEAL ANNULAR SPACE AROUND BOTTOM HALF OF PIPE ON INSIDE OF MANHOLE ONLY PER MANUFACTURER'S RECOMMENDATIONS. (TYP. OF ALL CONNECTIONS).

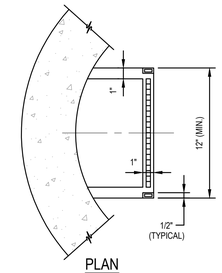
7 MANHOLE PIPE GASKETS

NO SCALE



10 MANHOLE PIPE ADAPTERS

NO SCALE



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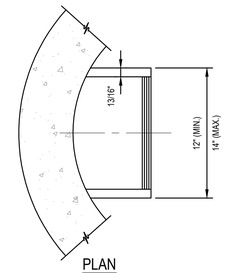

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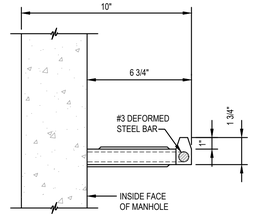
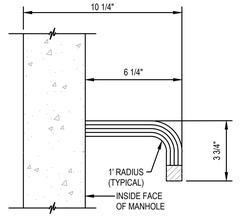


SECTIONAL ELEVATION
REINFORCED PLASTIC



SECTIONAL ELEVATION
ALUMINUM

11 MANHOLE STEPS

NO SCALE

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author **E. CAMACHO** Drafting Check **M. WIESTLING** Project Manager **C. AMER**
Designer **D. KNAPTON** Design Check Project Director **M. BISIGNANI**

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL
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ENGINEER
PE-044195-E
COMMONWEALTH OF PENNSYLVANIA

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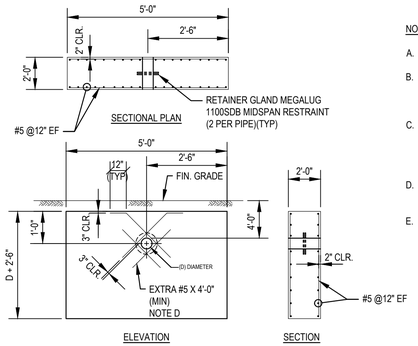
Client **COMMUNITY UTILITIES OF PENNSYLVANIA, INC.**
Project **CHESTNUT LANE PUMP STATION IMPROVEMENTS**

Title **CIVIL DETAILS 2**
Size **ARCH D**

Project No. **12562338** Date Scale **AS SHOWN**
Sheet No. **C-502**

Plot Date: 4 April 2024 - 10:40 AM Plotted By: Jake Strobert Filename: \\ghdnetgha\US\Bloomsburg\Projects\564\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-C502.dwg



NOTES:

A. INSTALL HES CONCRETE WITH SLUMP LESS THAN 4".

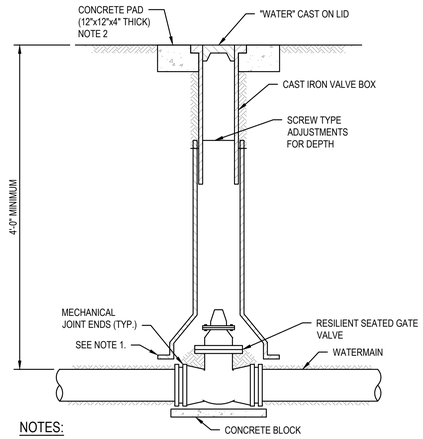
B. THRUST BLOCK DETAIL APPLIES TO ALL PIPE INCLUDING CONCRETE, DUCTILE IRON, STEEL AND PVC.

C. BACKFILL EACH SIDE OF REACTION BACKING WITH FLOWABLE FILL PER PENNDOT PUBLICATION 408, SECTION 220, TYPE A OR B. FLOWABLE BACKFILL NEED NOT EXCEED TOP OF REACTION BACKING.

D. EXTRA REBAR MAY BE OMITTED FOR PIPE DIAMETERS 10" OR SMALLER.

E. COLLARS ARE TO BE PLACED ON SAME PIPE AS CAPS AND PLUGS WHERE POSSIBLE. WHERE THIS IS NOT POSSIBLE COLLAR MUST BE PLACED WITHIN AREA OF RESTRAINED PIPE ASCLOSE AS PRACTICAL TO THE CAP OR PLUG.

1 **THRUST RESTRAINT COLLAR FOR DEAD ENDS DETAIL**
NO SCALE



NOTES:

1. BOTTOM OF VALVE BOX TO BE PLACED ON COMPACTED PIPE COVER BUT NOT IN CONTACT WITH THE PIPE OR VALVE.
2. CONCRETE PAD IS NOT REQUIRED FOR VALVE BOXES LOCATED WITHIN ASPHALT PAVING.

2 **VALVE BOX DETAIL**
NO SCALE

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author	E. CAMACHO	Drafting Check	M. WIESTLING	Project Manager	C. AMER
Designer	D. KNAPTON	Design Check		Project Director	M. BISIGNANI

Community Utilities of Pennsylvania

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Client **COMMUNITY UTILITIES OF PENNSYLVANIA, INC.**
Project **CHESTNUT LANE PUMP STATION IMPROVEMENTS**

Title **CIVIL DETAILS 3**

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Project No. **12562338**
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NOTES AND SEQUENCE OF CONSTRUCTION

1. REMOVAL OF EXISTING GROUND COVER, SITE DEVELOPMENT, AND FINAL STABILIZATION OF THE SITE WILL BE PERFORMED WITHIN THE LOD.
2. CONTRACTOR SHALL ADD MARKINGS (STAKES, FENCING, ETC.) TO DELINEATE THE LIMITS OF DISTURBANCE (LOD), THE COMPOST FILTER SOCKS, AND THE ROCK CONSTRUCTION ENTRANCE.
3. ALL TEMPORARY AND PERMANENT CONTROL MEASURES WILL BE INSTALLED, MAINTAINED, AND REMOVED IN ACCORDANCE WITH THE PROCEDURES OUTLINED IN THE "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL," PUBLISHED BY PADEP, BUREAU OFSOIL AND WATER CONSERVATION.
4. THE OVERALL CONSTRUCTION SCHEDULE IS ESTIMATED TO BE APPROXIMATELY 6 MONTHS. SITE RESTORATION SHALL TAKE APPROXIMATELY ONE WEEK. IT IS ANTICIPATED THAT CONSTRUCTION MAY START DURING THE SUMMER 2024.
5. AT LEAST 3 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT (800) 242-1776 FOR BURIED UTILITY LOCATIONS.
6. AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE CONTRACTOR SHALL NOTIFY THE CONSERVATION DISTRICT.
7. BEFORE IMPLEMENTING ANY REVISIONS TO THE APPROVED EROSION AND SEDIMENTATION CONTROL FEATURES, THE CONTRACTOR MUST RECEIVE APPROVAL OF THE REVISIONS FROM THE TOWNSHIP AND/OR THE CONSERVATION DISTRICT.
8. BEFORE DISPOSING OF SOIL, THE CONTRACTOR MUST ASSURE THAT EACH SPOIL AREA HAS AN APPROVED EROSION AND SEDIMENTATION CONTROL PLAN, WHICH WAS DEVELOPED IN ACCORDANCE WITH PADEP CHAPTER 102 REGULATIONS.
9. THE CONTRACTOR SHALL ESTABKLISH BYPASS PUMPING BEFORE DEMOLISHING THE EXISITNG STRUCTURES.
10. THE CONTRACTOR SHALL REMOVE FROM SITE, RECYCLE OR DISPOSE OF ALL MATERIALS AND WASTES IN ACCORDANCE WITH PADEP'S SOLID WASTE MANAGEMENT REGULATIONS AT PA CODE 260.1 ET. SEQ. AND 287.1 ET. SEQ. THE CONTRACTOR SHALL NOT BURY, DUMP OR DISCHARGE ANY WASTES AT THE SITE.
11. ALL DEMOLITION WASTE AND CONSTRUCTION DEBRIS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.
12. THE CONTRACTOR SHALL TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR DAMAGE ACCORDING TO THE APPROPRIATE UTILITYCOMPANY STANDARDS, AND AT THE CONTRACTOR'S EXPENSE.
13. ALL UTILITY DISCONNECTION, REMOVAL, RELOCATION, CUTTING, CAPPING, AND/OR ABANDONMENT SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANY.
14. THE BURNING OF CLEARED MATERIAL AND DEBRIS, SHALL NOT BE ALLOWED.
15. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PROPERLY INSTALLED, AND SHALL FUNCTION PROPERLY PRIOR TO INITIALIZATION OF DEMOLITION ACTIVITIES.
16. CONTRACTOR SHALL ADHERE TO ALL LOCAL, STATE, FEDERAL, AND OSHA REGULATIONS DURING ALL DEMOLITION ACTIVITIES.
17. NO TREES SHALL BE REMOVED, NOR VEGETATION DISTURBED BEYOND THE LIMITS OF CONSTRUCTION WITHOUT THE EXPRESS WRITTEN APPROVAL OF THE TOWNSHIP.
18. TREE PROTECTION FENCING SHALL BE INSTALLED. DO NOT OPERATE OR STORE EQUIPMENT, NOR HANDLE OR STORE MATERIALS WITHIN THE DRIP LINES OF THE TREES.
19. CONTRACTOR SHALL USE SUITABLE METHODS TO CONTROL DUST AND DIRT CAUSED BY DEMOLITION.
20. THE CONTRACTOR SHLL CLEAN CHESTNUT LANE FREE OF DIRT AND MUD. A STREET SWEEPER WITH WATER APPLICATION SHALL BE USED TO ACHIEVE CLEAN ASPHALT.
21. INSTALL ROCK CONSTRUCTION ENTRANCE AS SHOWN ON THE PLANS.
22. THE CONTRACTOR SHALL PROTECT THE INFILTRATION TRENCHES FROM COMPACTION DURING CONSTRUCTION.
23. INITIAL CLEARING SHALL BE LIMITED TO THAT WHICH IS NECESSARY TO INSTALL PERIMETER BMPS.
24. INSTALL COMPOST FILTER SOCKS AND ALL OTHER PERIMETER EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PROJECT AREA AS INDICATED ON THE DRAWINGS.
25. FINISH CLEARING AND GRUBBING.
26. TOPSOIL SHALL BE STRIPPED AND STOCKPILED.
27. INSTALL ANY REMAINING EROSION AND SEDIMENTATION CONTROL MEASURES.
28. TEMPORARY SEED AND MULCH ANY DISTURBED AREA WITHIN TWO DAYS MAXIMUM. DO NOT TEMPORARY SEED ANY ACCESSES BEING USED.
29. THE CONTRACTOR SHALL CHECK EXISTING GRADES, DIMENSIONS, AND INVERTS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE PRIOR TO BEGINNING WORK.
30. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. RELOCATE EXISTING UTILITIES AS INDICATED OR AS NECESSARY FOR CONSTRUCTION.
31. THE CONTRACTOR IS CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF THE EXISTING UTILITIES SHOWN, HEREON, ARE BASED ON TOPOGRAPHIC SURVEY. THE CONTRACTOR SHALL NOT RELY UPON THIS INFORMATION AS BEING EXACT OR COMPLETE. SHOULD UNCHARTED UTILITIES BE ENCOUNTERED DURING EXCAVATION OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS PRIOR TO AN EXCAVATION AND REQUEST FIELD VERIFICATION OF UTILITY LOCATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO RELOCATE EXISTING UTILITIES CONFLICTING WITH IMPROVEMENTS SHOWN, HERON, IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS GOVERNING SUCH OPERATIONS.
32. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION.
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES, SO THAT WATER LINES, GAS LINES, AND UNDERGROUND ELECTRIC DO NOT CONFLICT WITH SANITARY SEWERS OR STORM SEWERS.
34. INSTALL UTILITIES PRIOR TO PAVEMENT CONSTRUCTION.
35. ROUGH GRADE AS APPROPRIATE IN SEQUENCING SCHEME.
36. GRADE AND CONSTRUCT THE DRIVEWAY, WHEN APPROPRIATE.
37. CONSTRUCT STORMWATER MANAGEMENT AND CONTROL FACILITIES AS SHOWN IN THE PLANS.
38. PERFORM ALL UTILITY CONNECTIONS.
39. DOZER SHALL TRACK ALL SLOPES.
40. ALL DAMAGE TO EXISTING PAVEMENT TO REMAIN, WHICH RESULTS FROM THE CONTRACTOR'S OPERATIONS, SHALL BE REPLACED WITH LIKE MATERIALS AT THE CONTRACTOR'S EXPENSE.
41. RESTORE SITE IN ACCORDANCE WITH THESE RESTORATION PLANS AND DETAILS.
42. CONTRACTOR SHALL MAINTAIN ONE SET OF AS-BUILT/RECORD DRAWINGS ON THE JOB SITE DURING CONSTRUCTION, FOR DISTRIBUTION TO THE OWNER, AND/OR OWNER'S REPRESENTATIVE, UPON COMPLETION.
43. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL GRADING, SEEDING, REVEGETATION, BACKFILLING, AND ROUGH GRADING.
44. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL RESTORATION AND ACHIEVING THE 70% MINIMUM THRESHOLD FOR ESTABLISHED, VEGETATIVE COVER.
45. ONCE STABILIZATION HAS BEEN ACHIEVED AND APPROVED, REMOVE ALL PERIMETER SILT SOCKS AND ALL OTHER EROSION CONTROL MEASURES.
46. PERMANENTLY SEED AND MULCH WITHIN TWO DAYS ALL REMAINING DISTURBED AREAS AND AREAS DISTURBED DURING REMOVAL OF EROSION AND SEDIMENTATION CONTROL MEASURES.
47. THE TEMPORARY ROCK CONSTRUCTION ENTRANCE SHALL BE REMOVED AND RESTORED. ANY AREAS OF SETTLEMENT, WASHOUT, OR ACCELERATED EROSION SHALL BE REPAIRED.
48. PAVE ALL AREAS DESIGNATED TO BE PAVED.
49. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE INSTALLATION, INSPECTION, TESTING AND FINAL ACCEPTANCE OF ALL NEW STORMWATER MANAGEMENT FACILITIES. CONTRACTOR SHALL COORDINATE WITH THE TOWNSHIP AND/OR ALL APPLICABLE REGULATING AGENCIES CONCERNING INSTALLATION, INSPECTION AND APPROVAL OF STORM DRAINAGE SYSTEM CONSTRUCTION.
50. ALL STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL AND STATE CODES, AND REGULATIONS.
51. MAINTENANCE OF THE STORMWATER CONTROL FACILITIES SHALL BE INTEGRATED INTO ROUTINE LANDSCAPING MAINTENANCE TASKS.
52. IF THERE ARE ANY CLOGS, REPAIR OR REPLACE, AS APPROPRIATE.
53. ENSURE THAT THE CONTRIBUTING DRAINAGE AREA AND THE FACILITY SURFACE ARE CLEAR OF LEAVES AND DEBRIS.
54. ENSURE THAT THE CONTRIBUTING DRAINAGE AREA IS STABILIZED.
55. POST-STORM EVENT INSPECTIONS SHALL BE CONDUCTED WITHIN 24 HOURS AFTER THE CONCLUSION OF EACH MEASURABLE STORM EVENT (I.E., PRECIPITATION IN AN AMOUNT OF 0.25 INCH OR GREATER OVER A 24-HOUR PERIOD) OR THE OCCURRENCE OF SNOWMELT SUFFICIENT TO CAUSE A DISCHARGE.
56. DO NOT PLANT TREES OR BUSHES, UNLESS IN CONFORMANCE WITH THIS PLAN.
57. PROMPTLY REMOVE LEAVES AND TWIGS NEAR THE STORMWATER MANAGEMENT FACILITIES IN ORDER TO MINIMIZE THE POTENTIAL FOR CLOGGING.
58. PERFORM ANNUAL SITE INSPECTIONS FOR THE STORMWATER MANAGEMENT FACILITIES TO ENSURE PERFORMANCE AND LONGEVITY.

OPERATION AND MAINTENANCE OF INFILTRATION TRENCHES

1. MAINTENANCE OF THE INFILTRATION TRENCHES SHALL BE INTEGRATED INTO ROUNTINE MAINTENANCE OF THE PUMP STATION.
2. PREVENT THE BUILDUP OF A LEAF MAT, THICK GRASS CLIPPINGS, BRUSH, DEBRIS, ETC. ON THE TOP OF THE INFILTRATION TRENCHES.
3. IF THE INFILTRATION TRENCHES DO NOT APPEAR TO BE OPERATING PROPERLY, FIRST NOTIFY THE THE TOWNSHIP. IF ACCEPTABLE TO THE TOWNSHIP, REPLACE THE STONE AND RECONSTRUCT THE INFILTRATION TRENCHES.
4. ENSURE THAT THE DRAINAGE INFLUENT TO THE INFILTRATION TRENCHES ARE CLEAR OF LEAVES AND DEBRIS.
5. DO NOT PLANT TREES OR BUSHES NEAR OR ON TOP OF THE INFILTRATION TRENCHES.
6. PERFORM ROUTINE INSPECTIONS, ESPECIALLY AFTER STORM EVENTS, TO VERIFY PROPER OPERATION.
7. NO ALTERATION OF THE STORMWATER TRENCHES CAN OCCUR UNLESS SUCH APPROVAL BY THE TOWNSHIP IS PROVIDED IN WRITING.

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Community Utilities of Pennsylvania

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Client: COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
Project: CHESTNUT LANE PUMP STATION IMPROVEMENTS

Project No. 12562338
Date
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Title: EROSION AND SEDIMENTATION CONTROL NOTES AND SEQUENCE OF CONSTRUCTION

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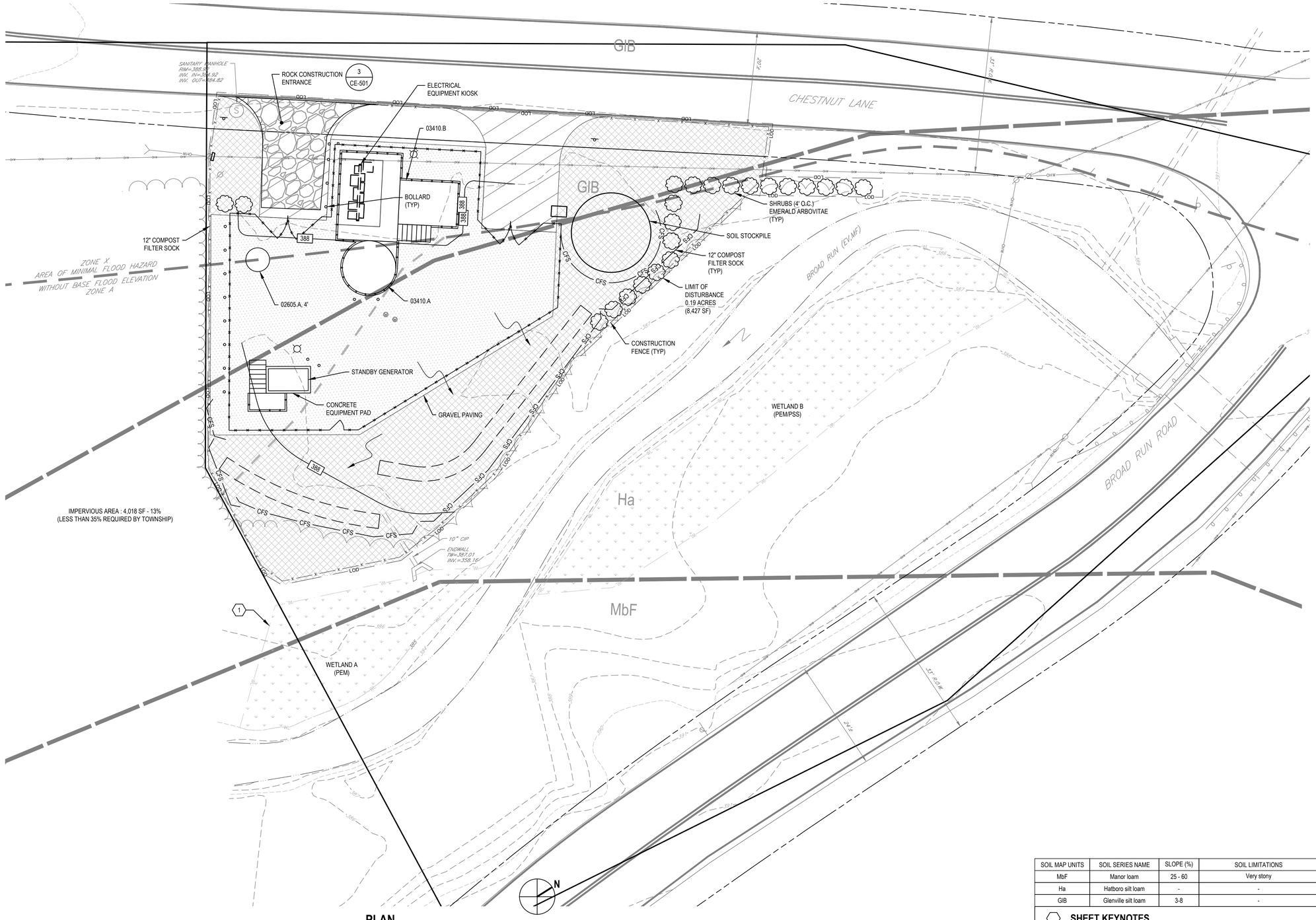

PLAN

SCALE: 1" = 10'

0 10' 20'

SOIL MAP UNITS	SOIL SERIES NAME	SLOPE (%)	SOIL LIMITATIONS
MbF	Manor loam	25 - 60	Very stony
Ha	Haltboro silt loam	-	-
GIB	Glenville silt loam	3-8	-

SHEET KEYNOTES

1. PRIOR TO ANY EARTH DISTURBANCE ACTIVITIES, MARK LIMITS OF DISTURBANCE AND WETLAND BOUNDARIES USING ORANGE CONSTRUCTION FENCE FOR THE PURPOSE OF LIMITING ACCESS.

LEGEND

- EXISTING COUNTOUR - MINOR
- EXISTING COUNTOUR - MAJOR
- EXISTING EDGE OF STREAM
- EXISTING WET LANDS
- SOIL TYPE BOUNDARY
- SOIL TYPE (MbF)
- 100-YEAR FLOOD PLAIN BOUNDARY (FEMA)
- FLOODWAY BOUNDARY (50 FT SETBACK)
- EXISTING OVERHEAD ELECTRIC
- EXISTING SANITARY SEWER
- EXISTING WATER PIPE
- EXISTING FENCE
- EXISTING PROPERTY LINE
- EXISTING RIGHT-OF-WAY LINE
- EXISTING EDGE OF GRAVEL
- EXISTING EDGE OF ROAD
- EXISTING GUARD RAIL
- EXISTING TREELINE
- EXISTING WATER VALVES
- EXISTING BURIED PIPE
- NEW STRUCTURE
- NEW GRAVEL PAVING
- NEW MINOR CONTOUR (388)
- NEW FENCE
- COMPOST FILTER SOCK (CFS)
- LIMIT OF DISTURBANCE (LOD)
- EXISTING WETLANDS
- EROSION CONTROL BLANKET
- FLOW ARROW

MATERIALS KEYING LEGEND

02605: MANHOLES
- .A MANHOLE WITH POURED MONOLITHIC BASE

03410: PRECAST STRUCTURAL CONCRETE
- .A WET WELL (10'-0" DIA INSIDE)
- .B VALVE VAULT (8'-0" X 11'-0")

SHEET GENERAL NOTES

1. FEMA DATA: FEMA FLOOD PLAIN BOUNDARY FROM FEDERAL EMERGENCY MANAGEMENT AGENCY DIGITAL FLOOD INSURANCE RATE MAP DATABASE OF CHESTER COUNTY, PENNSYLVANIA.
2. NO EXISTING TREES SHALL BE CUT OR REMOVED UNLESS PRIOR APPROVAL IS GRANTED.
3. NO TOPSOIL SHALL BE DISPOSED OF. THE TOPSOIL SHALL BE STOCKPILE AS SHOWN.
4. THE INFILTRATION TRENCHES SHALL BE PROTECTED FROM COMPACTION DURING CONSTRUCTION.
5. A MINIMUM OF SIX INCHES OF TOPSOIL COVER SHALL BE REPLACED ON ALL DISTURBED AREAS OF THE SITE.
6. SUBSOIL SHALL BE DISPOSED OF OFF SITE AT A PERMITTED DISPOSAL SITE.
7. PERMANENT VEGETATION AND EROSION CONTROL STRUCTURES SHOULD BE INSTALLED AS SOON AS PRACTICAL DURING CONSTRUCTION ACTIVITIES.
8. NATURAL VEGETATION AND TREES SHALL BE RETAINED AND PROTECTED.
9. NATURAL GRADE ALTERATIONS SHALL BE MINIMIZED.
10. THE TEMPORARY OR PERMANENT EROSION CONTROL AND STORMWATER MANAGEMENT STRUCTURES AND SYSTEMS SHALL BE INSTALLED WITHIN 2 DAYS OF THE INITIAL GROUNDBREAKING.
11. ALL DISTURBED SURFACES SHALL BE STABILIZED, WHETHER PERMANENT OR TEMPORARY, AND SHALL BE WATERED, TENDED AND MAINTAINED UNTIL GROWTH IS WELL ESTABLISHED.
12. LIMITS OF DISTURBANCE SHALL REMAIN IN EFFECT DURING ALL CONSTRUCTION ACTIVITIES ON THE SITE AND SHALL BE DELINEATED PRIOR TO ANY CLEARING OR GRADING ON THE SITE. THIS DELINEATION SHALL CONSIST OF THE PLACEMENT OF A 4-FOOT HIGH CONSTRUCTION FENCE MADE OF HIGHLY VISIBLE COLOR.
13. NO STREET LIGHTING IS PROPOSED.
14. AN AREA LIGHT ON BOTH SIDES OF THE ELECTRICAL KIOSK SHALL BE INCLUDED.
15. CONTRACTOR SHALL INSTALL ALL LANDSCAPING BY THE FIRST PLANTING SEASON FOLLOWING COMPLETION OF THE PROJECT.
16. ALL SHRUBS SHALL BE A MINIMUM HEIGHT OF 18 INCHES ABOVE THE TOP OF THE ROOT BALL WHEN PLANTED.
17. THE LANDSCAPED STREET BUFFER SHALL CONSIST OF S-3 SCREEN MATERIALS OTHER THAN TREES, BUT SHALL NOT INCLUDE ANY PLANTINGS THAT WILL OBSTRUCT ANY REQUIRED SIGHT DISTANCES.
18. THE PERSON RESPONSIBLE FOR THE OPERATION AND MAINTENANCE OF A BMP OR CONVEYANCE SHALL MAKE RECORDS OF THE INSTALLATION AND OF ALL MAINTENANCE AND REPAIRS, AND SHALL RETAIN THE RECORDS FOR AT LEAST 15 YEARS. THESE RECORDS SHALL BE SUBMITTED TO THE MUNICIPALITY, IF REQUESTED BY THE MUNICIPALITY.

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Project: CHESTNUT LANE PUMP STATION IMPROVEMENTS

Project No. 12562338 | Date | Scale AS SHOWN

Title: EROSION AND SEDIMENTATION CONTROL PLAN AND LANDSCAPING / LIGHTING PLAN

Size ARCH D

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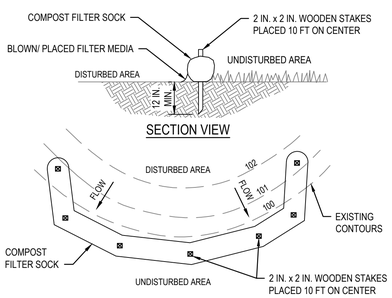

NOTES:

A. SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

B. COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURE. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

C. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

D. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

E. BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

F. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IF LEFT IN PLACE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

Table 4.1 COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-filament Polypropylene (MFPP)	Heavy Duty Multi-filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply systems					
Inner Containment Netting				HDPE biaxial net	
				Continuously wound	
				Fusion-welded junctures	
				3/4" x 3/4" Max. aperture size	
Outer Filtration Mesh				Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch)	
				3/16" Max. aperture size	
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					

Table 4.2 COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM

1 COMPOST FILTER SOCK DETAIL

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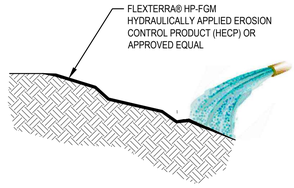

SPECIFICATION: 31 25 14.13 - HIGH-PERFORMANCE FLEXIBLE GROWTH MEDIUM (FGM):

THIS SECTION SPECIFIES A HYDRAULICALLY-APPLIED, 100% BIODEGRADABLE, HIGH PERFORMANCE-FLEXIBLE GROWTH MEDIUM (HP-FGM) THAT IS MANUFACTURED IN THE UNITED STATES AND IS COMPOSED OF 100% RECYCLED THERMALLY REFINED (WITHIN A PRESSURE VESSEL) WOOD FIBERS, CRIMPED INTERLOCKING MAN-MADE BIODEGRADABLE FIBERS, MICRO-PORE GRANULES, NATURALLY DERIVED CROSSLINKED BIOPOLYMERS AND WATER ABSORBENTS. THE HP-FGM IS PHYTOSANITIZED, FREE FROM PLASTIC NETTING.
REQUIRES NO CURING PERIOD AND UPON APPLICATION FORMS AN INTIMATE BOND WITH THE SOIL SURFACE TO CREATE A CONTINUOUS, POROUS, ABSORBENT AND FLEXIBLE EROSION RESISTANT BLANKET THAT ALLOWS FOR RAPID GERMINATION AND ACCELERATED PLANT GROWTH. ALL COMPONENTS OF THE FGM SHALL BE PRE-PACKAGED BY THE MANUFACTURER TO ASSURE BOTH MATERIAL PERFORMANCE AND COMPLIANCE WITH THE FOLLOWING VALUES. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT.

1. THERMALLY PROCESSED (WITHIN A PRESSURE VESSEL) WOOD FIBER - 80% ± 3%. HEATED TO A TEMPERATURE GREATER THAN 380 DEGREES FAHRENHEIT (193 DEGREES CELSIUS) FOR 5 MINUTES AT A PRESSURE GREATER THAN 50 PSI (345 KPA) CROSS-LINKED BIOPOLYMERS AND WATER ABSORBENTS - 10% CRIMPED, MAN-MADE BIODEGRADABLE INTERLOCKING FIBERS - 5% ± 1%. MICRO-PORE GRANULES - 5% ± 1%.

INSTALLATION:

STRICTLY COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION INSTRUCTIONS AND RECOMMENDATIONS. USE APPROVED HYDRO-SPRAYING MACHINES WITH FAN-TYPE NOZZLE (50-DEGREE TIP). TO ACHIEVE OPTIMUM SOIL SURFACE COVERAGE, APPLY HP-FGM FROM OPPOSING DIRECTIONS TO SOIL SURFACE. ROUGH SURFACES (ROCKY TERRAIN, CAT TRACKS AND RIPPED SOILS) MAY REQUIRE HIGHER APPLICATION RATES TO ACHIEVE 100%% COVER. SLOPE INTERRUPTION DEVICES OR WATER DIVERSION TECHNIQUES ARE RECOMMENDED WHEN SLOPE LENGTHS EXCEED 100 FEET (30 M). MAXIMUM SLOPE LENGTH IS FOR PRODUCT APPLICATIONS ON A 3H:1V SLOPE. FOR APPLICATION ON STEEPER SLOPES, SLOPE INTERRUPTION LENGTHS MAY NEED TO BE DECREASED BASED ON ACTUAL SITE CONDITIONS. NOT RECOMMENDED FOR CHANNELS OR AREAS WITH CONCENTRATED WATER FLOW. NO CHEMICAL ADDITIVES WITH THE EXCEPTION OF FERTILIZER, LIMING AND BIOSTIMULANT MATERIALS SHOULD BE ADDED TO THIS PRODUCT: TO ENSURE PROPER APPLICATION RATES, MEASURE AND STAKE AREA. FOR MAXIMUM PERFORMANCE, APPLY HP-FGM IN A TWO-STEP PROCESS AS FOLLOWS:

STEP ONE: APPLY FERTILIZER WITH SPECIFIED PRESCRIPTIVE AGRONOMIC FORMULATIONS AND 50% OF SEED WITH A SMALL AMOUNT OF HP-FGM FOR VISUAL METERING.
STEP TWO: MIX BALANCE OF SEED AND APPLY HP-FGM AT A RATE OF 50 LB PER 125 GALLONS (23 KG / 475 LITERS) OF WATER OVER FRESHLY SEEDED SURFACES. CONFIRM LOADING RATES WITH EQUIPMENT MANUFACTURER. DO NOT LEAVE SEEDED SURFACES UNPROTECTED, ESPECIALLY IF PRECIPITATION IS IMMINENT.

APPLICATION RATES: THESE APPLICATION RATES ARE FOR STANDARD CONDITIONS. DESIGNERS MAY WISH TO REDUCE RATES TO ENCOURAGE FASTER VEGETATION ESTABLISHMENT OR MAY NEED TO INCREASE APPLICATION RATES ON ROUGH SURFACES. CONSULT APPLICATION AND LOADING CHARTS TO DETERMINE NUMBER OF BAGS TO BE ADDED FOR DESIRED AREA AND APPLICATION RATE.

SLOPE GRADIENT / CONDITION	ENGLISH	SI
≤ 4H TO 1V	2500 LB / AC	2800 KG / HA
> 4H TO 1V AND ≤ 3H TO 1V	3000 LB / AC	3400 KG / HA
≥ 3H TO 1V AND ≤ 2H TO 1V	3500 LB / AC	3900 KG / HA
> 2H TO 1V AND ≤ 1H TO 1V	4000 LB / AC	4500 KG / HA
> 1H TO 1V	4500 LB / AC	5100 KG / HA
BELOW ECB OR TRM	1500 LB / AC	1700 KG / HA
AS INFILL FOR TRM	3500 LB / AC	3900 KG / HA

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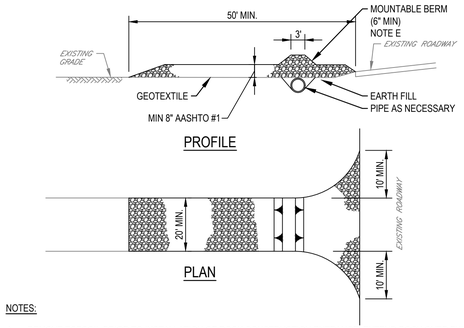
SEE COMPREHENSIVE CSI FORMATTED SPECIFICATION FOR FURTHER DETAILS

2 EROSION CONTROL BLANKET DETAIL (HYDRAULICALLY-APPLIED)

SCALE: NTS



NOTES:

A. REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

B. RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

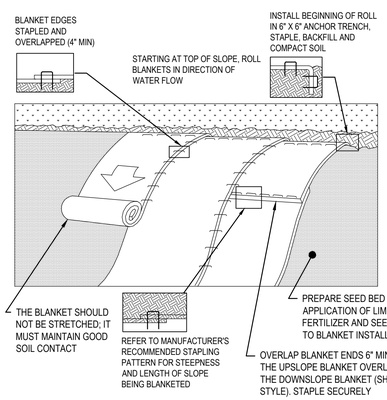
C. MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

D. MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK. WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

E. MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

3 ROCK CONSTRUCTION ENTRANCE DETAIL

SCALE: NTS



NOTES:

A. SEED AND SOIL AMENDMENTS SHALL BE APPLIED ACCORDING TO THE RATES IN THE PLAN DRAWINGS PRIOR TO INSTALLING THE BLANKET.

B. PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.

C. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.

D. BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH. LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.

E. THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

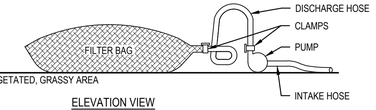
F. BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA. DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN 4 CALENDAR DAYS.

G. THE FOLLOWING GUIDELINES SHALL BE APPLIED WHERE BLANKET BECOMES NECESSARY BUT IS NOT SPECIFIED.

SLOPES	EROSION CONTROL BLANKET
≤3:1	NAG S75BN, East Coast ECS-1B or approved equal
≤2:1	NAG S150BN, East Coast ECS-2B or approved equal
1:1	NAG SC150BN, East Coast ECSC-2B or approved equal
NAG = North American Green EC = East Coast Erosion Control	

4 EROSION CONTROL BLANKET DETAIL (ROLLED INSTALLATION)

SCALE: NTS



NOTES:

A. LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG WIDE WIDTH STRENGTH	ASTM D-4884	60 LB / IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

B. A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

C. BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

D. NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

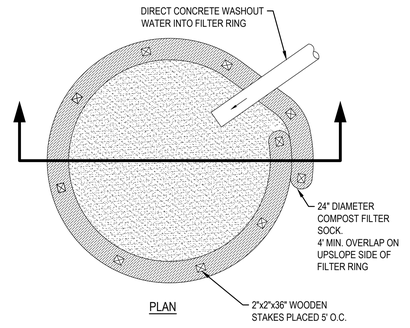
E. THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

F. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

G. FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

5 PUMPED WATER FILTER BAG DETAIL

SCALE: NTS



NOTES:

A. INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.

B. 18" DIAMETER SOCKS MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

C. UNDER NO CIRCUMSTANCES SHOULD WASH WATER FROM THESE VEHICLES BE ALLOWED TO ENTER ANY SURFACE WATERS. MAKE SURE THAT PROPER SIGNAGE IS PROVIDED TO DRIVERS SO THAT THEY ARE AWARE OF THE PRESENCE OF WASHOUT FACILITIES.

D. WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES, OR SURFACE WATERS.

E. THEY SHOULD BE IN A CONVENIENT LOCATION FOR THE TRUCKS, PREFERABLY NEAR THE PLACE WHERE THE CONCRETE IS BEING POURED, BUT FAR ENOUGH FROM OTHER VEHICULAR TRAFFIC TO MINIMIZE THE POTENTIAL FOR ACCIDENTAL DAMAGE OR SPILLS. WHEREVER POSSIBLE, THEY SHOULD BE LOCATED ON SLOPES NOT EXCEEDING A 2% GRADE.

F. A SUITABLE IMPERVIOUS GEOMEMBRANE SHOULD BE PLACED AT THE LOCATION OF THE WASHOUT. COMPOST SOCKS SHOULD BE STAKED IN THE MANNER RECOMMENDED BY THE MANUFACTURER AROUND PERIMETER OF THE GEOMEMBRANE SO AS TO FORM A RING WITH THE ENDS OF THE SOCK LOCATED AT THE UPSLOPE CORNER. CARE MUST BE TAKEN TO ENSURE CONTINUOUS CONTACT OF THE SOCK WITH THE GEOMEMBRANE AT ALL LOCATIONS. WHERE NECESSARY, SOCKS MAY BE STACKED AND STAKED SO AS TO FORM A TRIANGULAR CROSS-SECTION.

MAINTENANCE:

A. ALL CONCRETE WASHOUT FACILITIES SHOULD BE INSPECTED DAILY. DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.

B. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY.

C. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

6 CONCRETE WASHOUT DETAIL

SCALE: NTS

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author **E. CAMACHO** Drafting Check **M. WIESTLING** Project Manager **C. AMER**
Designer **A. STANK** Design Check Project Director **M. BISIGNANI**

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

REGISTERED PROFESSIONAL CHARLES WOLF AMER ENGINEER PE-044192-R COMMONWEALTH OF PENNSYLVANIA

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Client **COMMUNITY UTILITIES OF PENNSYLVANIA, INC.**
Project **CHESTNUT LANE PUMP STATION IMPROVEMENTS**

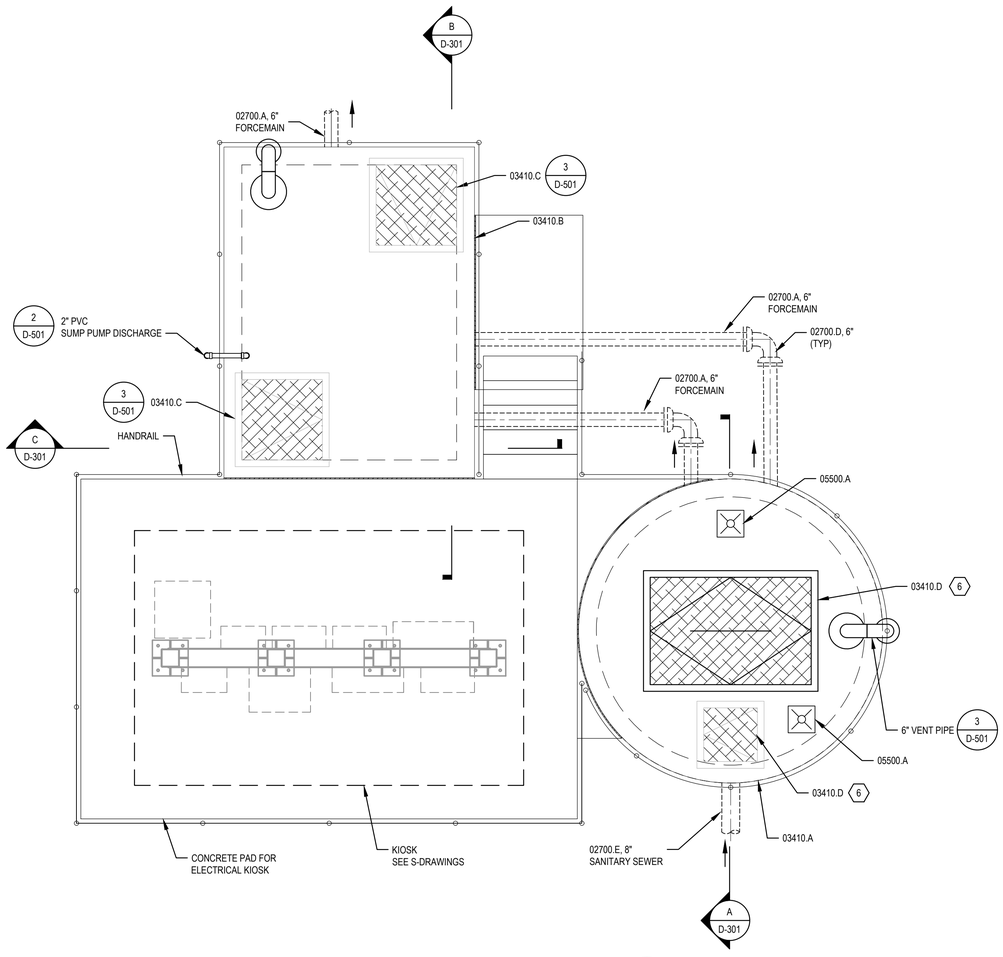
Title **EROSION AND SEDIMENTATION CONTROL DETAILS**

Size **ARCH D**

Project No. **12562338** Date Scale **AS SHOWN**

Sheet No. **CE-501**

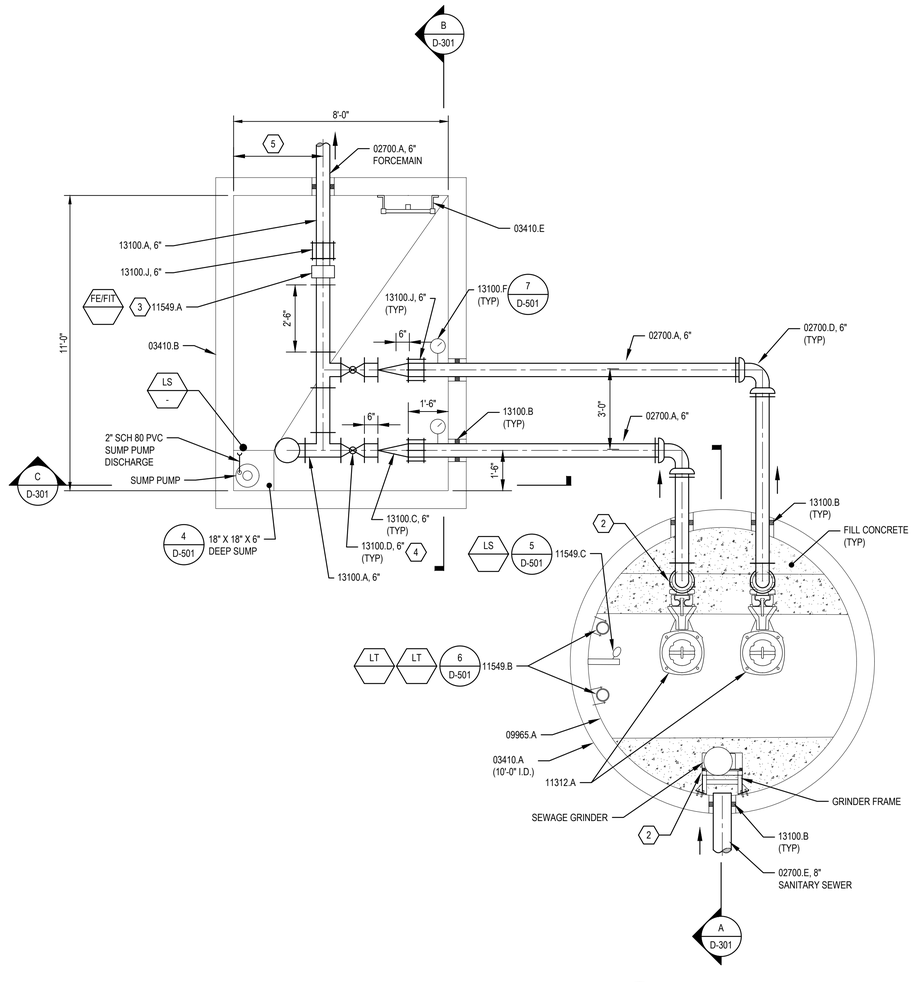
Plot Date: 4 April 2024 - 10:42 AM Plotted By: Jake Strobert Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\64\12562338\Digital_Design\ACAD2020\Sheets\Civil\12562338-CE501.dwg



TOP PLAN

SCALE : 3/8" = 1'-0"

0 2' 4' 6'



INTERIOR PLAN

SCALE : 3/8" = 1'-0"

0 2' 4' 6'

MATERIALS KEYING LEGEND

02700: PIPED UTILTIIES
- .A DUCTILE IRON PIPE
- .C PLUG VALVE WITH VALVE BOX
- .D MJ 90 BEND
- .E PVC PIPE

03410: PRECAST STRUCTURAL CONCRETE
- .A WET WELL (10' DIA. INSIDE)
- .B VALVE VAULT (11' X 8' INSIDE)
- .C 36" X 36" SINGLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME AND SAFETY GRATING
- .D 72" X 48" DOUBLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME AND SAFETY GRATING
- .E ACCESS LADDER WITH SAFETY EXTENSION
- .F 24" X 24" SINGLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME AND SAFETY GRATING

05500: METAL FABRICATIONS
- .A PORTABLE DAVIT SOCKET BASE

09965: PROTECTIVE LINING FOR CONCRETE
- .A PROTECTIVE LINING

11312: SUBMERSIBLE PUMPS
- .A SUBMERSIBLE PUMP
- .B SS PUMP GUIDE RAILS
- .C SS LIFTING CHAIN
- .D POWER CABLE
- .E SS PUMP GUIDE RAIL SUPPORT
- .F PUMP CONTROL PANEL

11549: FIELD MOUNTED INSTRUMENTS
- .A MAGNETIC FLOW METER
- .B LEVEL TRANSDUCER
- .C LEVEL FLOAT SWITCH

13100: PIPING, VALVES AND SPECIALS
- .A DUCTILE IRON PIPE
- .B MODULAR SEAL
- .C CHECK VALVE
- .D PLUG VALVE
- .E PIPE SUPPORT
- .F PRESSURE GAUGE
- .G QUICK CONNECT COUPLING
- .I REDUCER
- .J RESTRAINED FLANGED ADAPTER

SHEET GENERAL NOTES

1. NFPA 820 CLASS I DIVISION 1 GROUP D AREAS
   - A. WET WELL INTERIOR
   - B. WITHIN 3' RADIUS OF WET WELL VENT
2. NFPA 820 CLASS I DIVISION 2 GROUP D AREAS
   - A. WITHIN 3.5' RADIUS OF WET WELL VENT
   - B. WITHIN 3' OF WETWELL HATCH UP TO 18" ABOVE GRADE OR TOP OF WET WELL.
   - C. WITHIN 3' RADIUS OF VALVE VAULT VENT.
   - D. VALVE VAULT INTERIOR

SHEET KEYNOTES

1. ITEMS ARE ROTATED FOR CLARITY. REFER TO PLAN VIEW FOR ORIENTATION.
2. CONTRACTOR TO FURNISH AND INSTALL PUMP AND SEWAGE GRINDER GUIDE RAIL SUPPORTS AS PER MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR TO PROVIDE SPOOL PIECE OF DUCTILE IRON PIPE WITH FLANGED ENDS TO INSTALL IN FLOWMETER'S PLACE WHEN FLOWMETER IS REMOVED FOR MAINTENANCE / SERVICE.
4. INSTALL PLUG VALVES SO THAT PLUG SHAFT IS HORIZONTAL, PLUG IS AT THE UPSTREAM END OF THE VALVE WHEN CLOSED, AND PLUG IS IN THE UPPER PART OF THE VALVE BODY WHEN OPEN.
5. DIMENSION SHALL BE BASED ON APPROVED PIPING AND VALVE SHOP DRAWINGS AND CONTRACTOR'S PROPOSED LAYING SCHEDULE.
6. CONTRACTOR TO INSTALL HATCH DRAINS TO WET WELL.

No.	Issue	Author	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	E. CAMACHO	JS	CA	4/04/2024

Designer D. KNAPTON | Drafting Check M. WIESTLING | Design Check | Project Manager C. AMER | Project Director M. BISIGNANI

Community Utilities of Pennsylvania

Bar is one inch on original size sheet
0 1"

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Client: COMMUNITY UTILITIES OF PENNSYLVANIA, INC.
Project: CHESTNUT LANE PUMP STATION IMPROVEMENTS

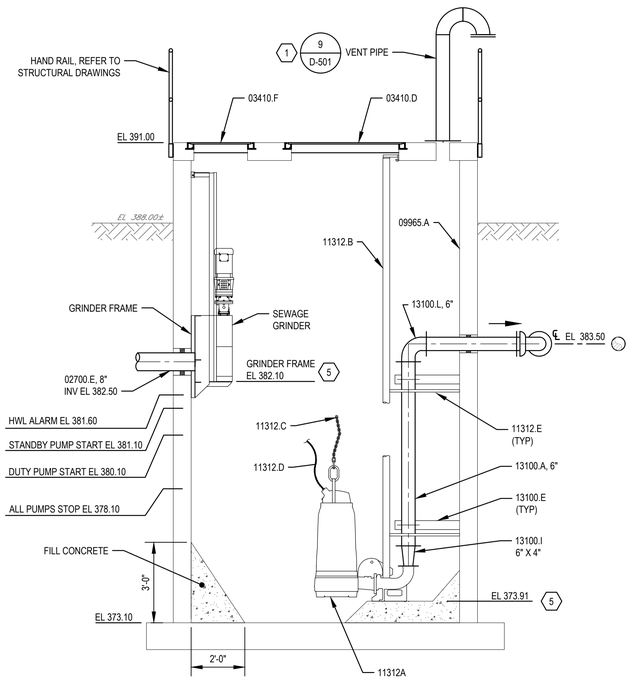
Project No. 12562338 | Date | Scale AS NOTED

Title: PUMP STATION PLANS

Size ARCH D

Sheet No. D-101

Plot Date: 4 April 2024 - 10:43 AM Plotted By: Jake Strobert Filename: \\ghdnetghd1\US\Bloomsburg\Projects\564\12562338\Digital_Design\ACAD2020\Sheets\Process\12562338-D101.dwg



A D-101 **SECTION**

SCALE : 3/8" = 1'-0"

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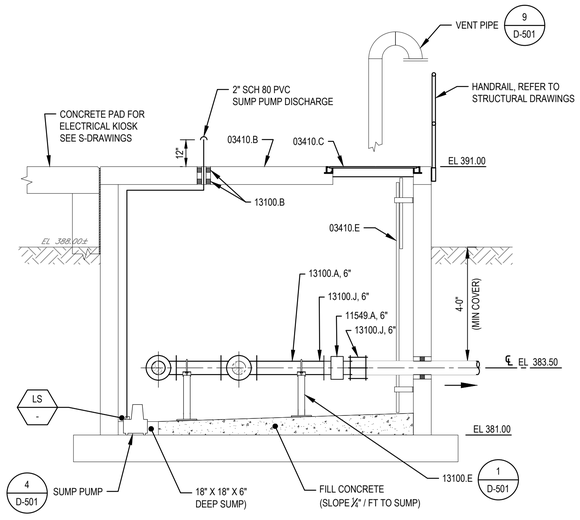

B D-101 **SECTION**

SCALE : 3/8" = 1'-0"

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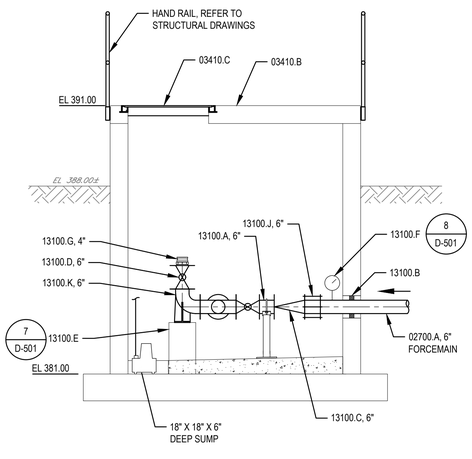

C D-101 **SECTION**

SCALE : 3/8" = 1'-0"

0 2' 4' 6'

MATERIALS KEYING LEGEND

02300: EARTHWORK
- .A PENNDOT 2A STONE

02700: PIPED UTILITIES
- .A DUCTILE IRON PIPE
- .E PVC PIPE
- .J MJ SOLID SLEEVE

03410: PRECAST STRUCTURAL CONCRETE
- .A WET WELL (10' DIA. INSIDE)
- .B VALVE VAULT (11'-0" X 8'-0" INSIDE)
- .C 3'-0" X 3'-0" SINGLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME AND SAFETY GRATING
- .D 6'-0" X 4'-0" DOUBLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME AND SAFETY GRATING
- .E ACCESS LADDER WITH SAFETY EXTENSION
- .F 2'-6" X 2'-0" SINGLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME AND SAFETY GRATING
- .J 2'-0" X 2'-0" SINGLE-LEAF ALUMINUM ACCESS HATCH WITH GUTTER TYPE FRAME AND SAFETY GRATING

05500: METAL FABRICATIONS
- .A PORTABLE DAVIT SOCKET BASE

09965: PROTECTIVE LINING FOR CONCRETE
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- .B SS PUMP GUIDE RAILS
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11549: FIELD MOUNTED INSTRUMENTS
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- .A DUCTILE IRON PIPE
- .B MODULAR SEAL
- .C CHECK VALVE
- .D PLUG VALVE
- .E PIPE SUPPORT
- .F PRESSURE GAUGE
- .G QUICK CONNECT COUPLING
- .I REDUCER
- .J RESTRAINED FLANGED ADAPTER
- .K BASE ELBOW
- .L 90 BEND

SHEET KEYNOTES

1. ITEMS ARE ROTATED FOR CLARITY. REFER TO PLAN VIEW FOR ORIENTATION.
2. CONTRACTOR TO FURNISH AND INSTALL PUMP AND GRINDER GUIDE RAIL SUPPORTS AS PER MANUFACTURER'S RECOMMENDATIONS.
3. CONTRACTOR TO INSTALL GROUT (3" MIN) AS REQUIRED TO PROVIDE PUMP MANUFACTURER'S RECOMMENDED SUCTION CLEARANCE.
4. CONTRACTOR TO COAT VAULT EXTERIOR WITH DAMP-PROOFING COATING AND INSTALL HEAT SHRINKABLE WRAP ON ALL JOINTS, IN ADDITION TO PRE-FORMED RUBBER GASKET, WRAP SHALL EXTEND 6" (MIN) BEYOND JOINT IN EACH DIRECTION.
5. VERIFY EQUIPMENT ELEVATIONS WITH APPROVED SHOP DRAWINGS.

No.	Issue	Checked	Approved	Date
A	PRELIMINARY / FINAL LAND DEVELOPMENT PLAN	JS	CA	4/04/2024

Author **E. CAMACHO** Drafting Check **M. WIESTLING** Project Manager **C. AMER**

Designer **D. KNAPTON** Design Check Project Director **M. BISIGNANI**

Community Utilities of Pennsylvania

Bar is one inch on original size sheet

0 1"

REGISTERED PROFESSIONAL ENGINEER CHARLES WOLF AMER PE-041922-E

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Client **COMMUNITY UTILITIES OF PENNSYLVANIA, INC.**

Project **CHESTNUT LANE PUMP STATION IMPROVEMENTS**

Title **PUMP STATION SECTIONS**

Size **ARCH D**

Project No. **12562338** Date Scale **AS NOTED**

Sheet No. **D-301**

Plot Date: 4 April 2024 - 10:44 AM Plotted By: Jake Strobert Filename: \\ghdnet\ghd\US\Bloomsburg\Projects\664\12562338\Digital_Design\ACAD2020\Sheets\Process\12562338-D301.dwg