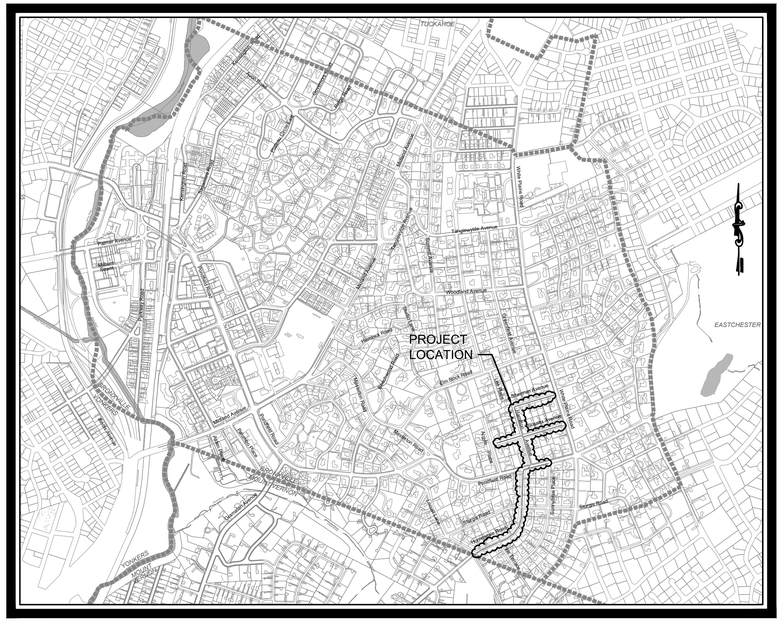
CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD
DRAINAGE IMPROVEMENTS
VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

GENERAL NOTES:

1. INFORMATION SHOWN OR NOTED IS APPROXIMATE. CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING EXISTING GRADES, DRAINAGE PIPES, ROADWAYS, WALKWAYS, AND OTHER UTILITIES WHICH MAY AFFECT THE CONTRACT WORK.
2. CONTRACTOR SHALL FOLLOW OSHA SAFETY AND HEALTH STANDARDS (29 CFR1925/1910/1926, LATEST REVISIONS) AS WELL AS ALL STATE AND LOCAL REQUIREMENTS.
3. ALL DISTURBED AREAS AND GRADES SHALL BE RESTORED TO EXISTING CONDITIONS.
4. CONTRACTOR SHALL NOT ENCROACH UPON PRIVATE PROPERTY WITHOUT WRITTEN CONSENT OF THE PROPERTY OWNER. MATERIALS STORED WITHIN OR NEAR THE WORKSITE SHALL BE SO PLACED AS TO CAUSE MINIMAL OBSTRUCTION TO THE PUBLIC.
5. CONTRACTOR SHALL PROTECT TREES, SHRUBBERY, AND OTHER NATURAL FEATURES OR STRUCTURES.
6. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF ALL UTILITIES AND SHALL "MARK OUT" EACH UTILITY PRIOR TO PROCEEDING WITH ANY EXCAVATING OR SITE WORK. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION TO ALL UTILITIES BY MEANS OF CODE 753.
7. CONTRACTOR SHALL ESTABLISH OR VERIFY DIMENSIONS OF EXISTING STRUCTURES, EQUIPMENT, AND THEIR LOCATIONS WITH THE REQUIRED ACCURACY WHERE NEEDED.
8. SUBMISSION OF THE CONTRACTOR'S BID IMPLIES THAT HE/SHE HAS EXAMINED THE EXISTING FACILITIES BY MEANS OF SITE INSPECTION AND OTHER MEANS, AND IS THOROUGHLY FAMILIAR WITH ALL OF THE REQUIREMENTS OF THE WORK. ADDITIONAL COMPENSATION REQUESTS WILL NOT BE CONSIDERED BECAUSE OF THE CONTRACTOR'S FAILURE TO INFORM HIMSELF OF THE SITE CONDITIONS AND CONTRACT REQUIREMENTS.
9. ALL WORK SHALL COMPLY WITH AND BE INSTALLED IN ACCORDANCE WITH THE LOCAL CODES HAVING JURISDICTION OVER THE WORK.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF HIS WORK AND NEWLY INSTALLED OR EXISTING WORK, INCLUDING PROTECTION OF BUILDING OCCUPANTS, PUBLIC, AND PERSONNEL. CONTRACTOR SHALL PROVIDE APPROPRIATE BARRIERS, AND SAFETY GUARDRAILS AS REQUIRED.
11. ANY DISRUPTION IN BUILDING SERVICES SHALL BE KEPT TO A MINIMUM AND SHALL NOT BE IMPLEMENTED WITHOUT RECEIVING PRIOR WRITTEN APPROVAL OF THE OWNER.
12. THE CONTRACTOR SHALL PROVIDE ALL RIGGING, HOISTING AND SCAFFOLDING AS REQUIRED FOR THE INSTALLATION OF HIS WORK.
13. ALL WORK SHALL BE PERFORMED BY LICENSED CONTRACTORS AND WORKMEN EXPERIENCED IN THE TRADE HAVING JURISDICTION. ALL WORK SHALL BE SUPERVISED AT ALL TIMES.
14. ANY DEVIATION OR CHANGE IN DESIGN SHALL NOT BE MADE WITHOUT WRITTEN APPROVAL OF THE ENGINEER OR THE OWNER. ANY WORK INSTALLED WITHOUT PRIOR APPROVAL OF THE ENGINEER OR OWNER AND FOUND TO BE DEFECTIVE OR OF POOR QUALITY SHALL BE REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE.
15. ALL CONSTRUCTION WORK SHALL BE CONFINED TO THE AREA INDICATED ON PLANS AND SHALL NOT BLOCK MEANS OF EGRESS FOR OCCUPANTS OF THE PROPERTIES.
16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL NEW WORK AND EQUIPMENT INSTALLED AND EXISTING WORK UNTIL FINAL ACCEPTANCE BY THE ENGINEER AND OWNER.
17. INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH WESTCHESTER COUNTY BEST MANAGEMENT PRACTICES (BMP) AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP).
18. ALL CONSTRUCTION ACTIVITIES FOR THE REMOVAL OF SEDIMENTS AND STORM WATER MANAGEMENT SHALL BE IN STRICT COMPLIANCE WITH THE PERMIT (GP-0-20-001) AND APPROVED STORM WATER POLLUTION PREVENTION PLAN (SWPPP).



0 800 1600 3200
SCALE IN FEET

LOCATION MAP
SCALE: 1" = 800 Feet

DRAWING LIST	
01	GENERAL NOTES, LOCATION MAP, AND DRAWING LIST
02A	OVERALL KEY MAP, BORING LOCATION MAP, AND QUANTITY TAKE OFF
02B	BORING LOGS
03	DRAINAGE IMPROVEMENT PLAN AND PROFILE - SHERMAN AVENUE - STA. 0+00 TO 4+45.1
04	DRAINAGE IMPROVEMENT PLAN AND PROFILE - HAMILTON AVENUE - STA. 0+00 TO 4+00
05A	DRAINAGE IMPROVEMENT PLAN - HAMILTON AVENUE - STA. 4+00 TO 7+87.5
05B	DRAINAGE IMPROVEMENT PROFILE - HAMILTON AVENUE - STA. 4+00 TO 7+87.5
06	DRAINAGE IMPROVEMENT PLAN AND PROFILE - SUSSEX AVENUE (ARGYLE PLACE TO HAMILTON AVENUE) - STA. 0+00 TO 3+64.9
07A	DRAINAGE IMPROVEMENT PLAN - SUSSEX AVENUE (HAMILTON AVENUE TO WHITE PLAINS ROAD) STA. 0+00 TO 4+69.8
07B	DRAINAGE IMPROVEMENT PROFILE - SUSSEX AVENUE (HAMILTON AVENUE TO WHITE PLAINS ROAD) STA. 0+00 TO 4+69.8
08	DRAINAGE IMPROVEMENT PLAN AND PROFILE - PONDFIELD ROAD - STA. 0+00 TO 2+35.6
09	DRAINAGE IMPROVEMENT PLAN AND PROFILE - HOMESDALE ROAD - STA. 0+00 TO 4+00
10	DRAINAGE IMPROVEMENT PLAN AND PROFILE - HOMESDALE ROAD - STA. 4+00 TO 8+00
11A	DRAINAGE IMPROVEMENT PLAN - HOMESDALE ROAD - STA. 8+00 TO 11+99.5
11B	DRAINAGE IMPROVEMENT PROFILE - HOMESDALE ROAD - STA. 8+00 TO 11+99.5
12	CONSTRUCTION DETAILS
13	CONSTRUCTION DETAILS
14	SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
15	TRAFFIC AND CONTROL PLANS - LOW VOLUME ROADS
16	TRAFFIC AND CONTROL PLANS - HIGH VOLUME ROADS

DOCUMENTS REVIEWED AND APPROVED BY VILLAGE OF BRONXVILLE, NEW YORK.

JIM PALMER, VILLAGE ADMINISTRATOR

MAYOR AND BOARD OF TRUSTEES

Mary C. Marvin, Mayor
Robert S. Underhill, Deputy Mayor
Helen Knapp, Trustee
William C. Fredericks, Trustee
Mary Taylor Behrens, Trustee

James M. Palmer, Village Administrator
Victor J. Lema, General Foreman

"WARNING - IT IS VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2, FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF THE NEW YORK STATE LAW SECTION 7209.2"

ARSHAD JALIL, P.E., BCEE
N.Y. PROFESSIONAL ENGINEER LICENSE No. 071536

PCI PROFESSIONAL CONSULTING , LLC.
OCTAGON 10 OFFICE CENTER
1719 ROUTE 10 SUITE 225
PARSIPPANY, NEW JERSEY 07054
PH.: 973.683.0044
FAX.: 973.683.0077

N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

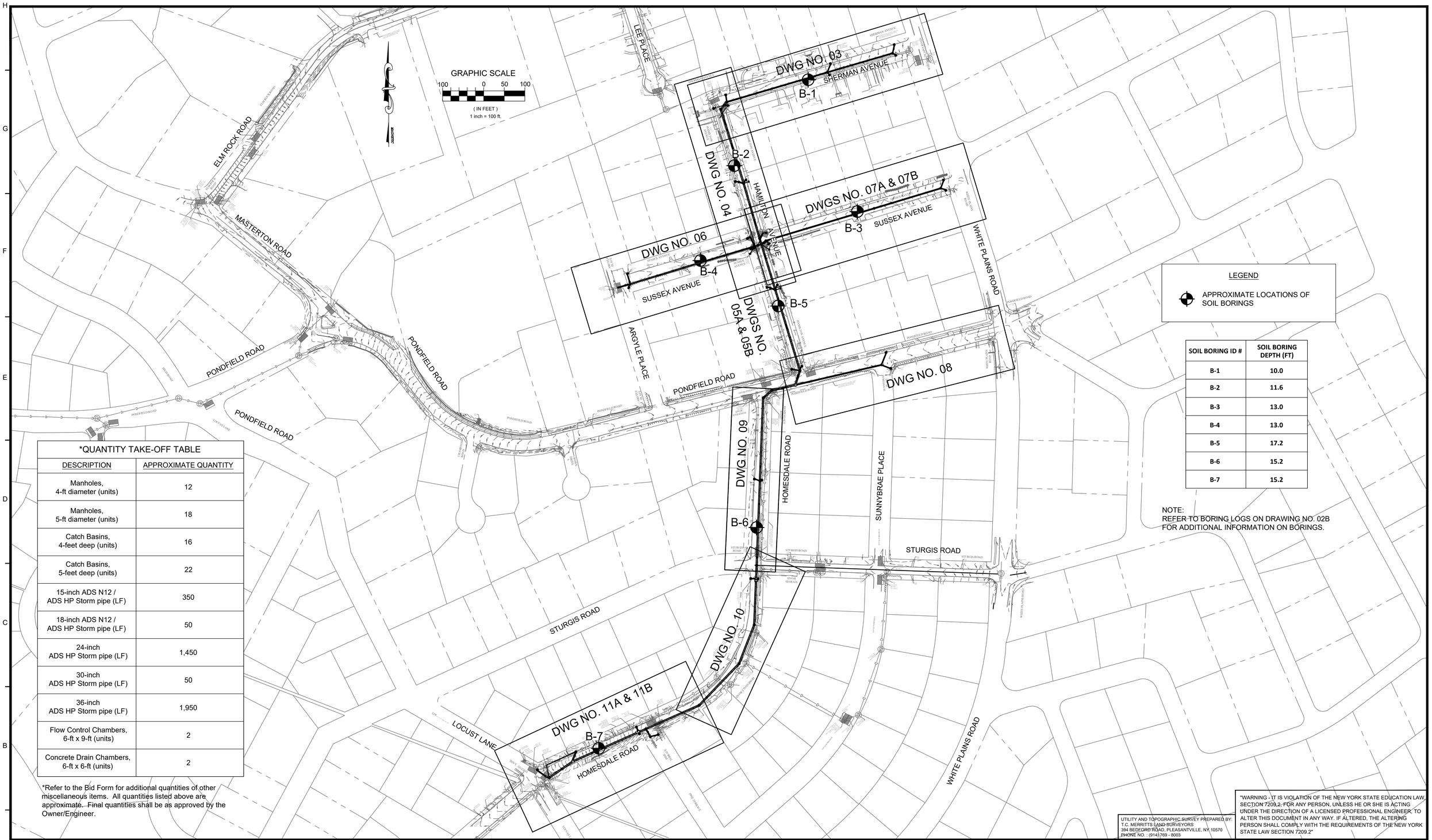
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE, WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

GENERAL NOTES, LOCATION MAP, AND DRAWING LIST

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	01



LEGEND

APPROXIMATE LOCATIONS OF SOIL BORINGS

SOIL BORING ID #	SOIL BORING DEPTH (FT)
B-1	10.0
B-2	11.6
B-3	13.0
B-4	13.0
B-5	17.2
B-6	15.2
B-7	15.2

NOTE:
REFER TO BORING LOGS ON DRAWING NO. 02B FOR ADDITIONAL INFORMATION ON BORINGS.

*QUANTITY TAKE-OFF TABLE

DESCRIPTION	APPROXIMATE QUANTITY
Manholes, 4-ft diameter (units)	12
Manholes, 5-ft diameter (units)	18
Catch Basins, 4-feet deep (units)	16
Catch Basins, 5-feet deep (units)	22
15-inch ADS N12 / ADS HP Storm pipe (LF)	350
18-inch ADS N12 / ADS HP Storm pipe (LF)	50
24-inch ADS HP Storm pipe (LF)	1,450
30-inch ADS HP Storm pipe (LF)	50
36-inch ADS HP Storm pipe (LF)	1,950
Flow Control Chambers, 6-ft x 9-ft (units)	2
Concrete Drain Chambers, 6-ft x 6-ft (units)	2

*Refer to the Bid Form for additional quantities of other miscellaneous items. All quantities listed above are approximate. Final quantities shall be as approved by the Owner/Engineer.

UTILITY AND TOPOGRAPHIC SURVEY PREPARED BY:
T.C. MERRITTS LAND SURVEYORS
394 BEDFORD ROAD, PLEASANTVILLE, NY 10570
PHONE NO. : (914) 769 - 8003

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PH.: 973.683.0044
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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

OVERALL KEY MAP, BORING LOCATION MAP, AND QUANTITY TAKE-OFF TABLE

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	02A

LOG OF BORING NO. B-1

Sheet 1 of 1

PROJECT: Village of Bronxville Drainage Improvements - Hamilton Avenue
PROJECT NO.: 3423000048
PROJECT LOCATION: Bronxville, New York

WATER LEVEL (ft): NE ---- BOC
DATE: 10-30-23 ---- 10-30-23
NORTHING: ---- EASTING: ----

DATE STARTED: 10/30/2023
DATE COMPLETED: 10/30/2023
DRILLING CONTRACTOR: D.K. Drilling of New York, Inc.
DRILLER: Kostas
DRILLING METHOD: Continuous
SAMPLING METHOD: SPT

HAMMER TYPE: Automatic
GROUND SURFACE ELEVATION: 192.0 +/-
DATUM: TOPO
EQUIPMENT: CME 75
LOGGED BY: BG
CHECKED BY: RD

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					192.0	0			-4" Asphalt	
					191.6	1	FILL		FILL: Dark-gray moist, medium dense, silty sand with gravel and asphalt fragments	
S-1	0.0	13	18-14-5-4	19	190.0	2			Gray to brown, moist, Sandy SILT	
						3	ML			
S-2	2.0	20	6-4-5-8	9	188.0	4				
						5	SM		Brown, moist, Silty SAND with trace Gravel	
S-3	4.0	14	4-7-5-5	12		6				
						7			-same, gray-brown, more fines	
S-4	6.0	20	5-4-5-8	9		8				
						9			-same	-residual soil
S-5	8.0	16	6-7-6-8	13		10				
					182.0				Boring complete at 10 ft.	

NOTES: BOC = Backfilled on completion

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

LOG OF BORING NO. B-1

Sheet 1 of 1

LOG OF BORING NO. B-2

Sheet 1 of 1

PROJECT: Village of Bronxville Drainage Improvements - Hamilton Avenue
PROJECT NO.: 3423000048
PROJECT LOCATION: Bronxville, New York

WATER LEVEL (ft): NE ---- BOC
DATE: 10-30-23 ---- 10-30-23
NORTHING: ---- EASTING: ----

DATE STARTED: 10/30/2023
DATE COMPLETED: 10/30/2023
DRILLING CONTRACTOR: D.K. Drilling of New York, Inc.
DRILLER: Dorbal
DRILLING METHOD: Continuous
SAMPLING METHOD: SPT

HAMMER TYPE: Automatic
GROUND SURFACE ELEVATION: 188.5 +/-
DATUM: TOPO
EQUIPMENT: CME 45
LOGGED BY: BG
CHECKED BY: RD

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					188.5	0			-5" Asphalt	
					188.1	1	FILL		FILL: Black, moist, medium dense, silty sand with gravel and asphalt fragments	
S-1	0.0	8	21-20-9-9	29	186.5	2			Brown, moist, medium dense, Silty SAND	
						3	SM			
S-2	2.0	4	12-7-7-6	14		4			-same, Dark gray with Gravel	
						5				
S-3	4.0	3	7-7-9-11	16		6			-same	
						7				
S-4	6.0	14	6-7-9-9	16		8			-same, Brown, more gravel	
						9				
S-5	8.0	20	7-9-10-11	19		10				-residual soil
						11				
S-6	10.0	22	8-10-9-100/2"	19	177.0				Highly weathered ROCK	
					176.9		HW		Boring complete at 11.6 ft.	

NOTES: BOC = Backfilled on completion

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

LOG OF BORING NO. B-2

Sheet 1 of 1

LOG OF BORING NO. B-3

Sheet 1 of 1

PROJECT: Village of Bronxville Drainage Improvements - Hamilton Avenue
PROJECT NO.: 3423000048
PROJECT LOCATION: Bronxville, New York

WATER LEVEL (ft): NE ---- BOC
DATE: 10-30-23 ---- 10-30-23
NORTHING: ---- EASTING: ----

DATE STARTED: 10/30/2023
DATE COMPLETED: 10/30/2023
DRILLING CONTRACTOR: D.K. Drilling of New York, Inc.
DRILLER: Kostas
DRILLING METHOD: Continuous
SAMPLING METHOD: SPT

HAMMER TYPE: Automatic
GROUND SURFACE ELEVATION: 190.0 +/-
DATUM: TOPO
EQUIPMENT: CME 75
LOGGED BY: BG
CHECKED BY: RD

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					190.0	0			-5" Asphalt	
					189.6	1	FILL		FILL: Gray, moist, loose, silty sand with gravel and debris	
S-1	0.0	14	16-5-4-5	9	188.0	2			Gray, moist, stiff, Sandy SILT	
						3	ML			
S-2	2.0	12	5-6-6-7	12		4			-same medium stiff	
						5				
S-3	4.0	10	3-3-3-3	6		6			-same	
						7				
S-4	6.0	5	1-1-1-1	2		8				
					182.0	9	SM		Brown, wet, medium dense, Silty SAND	-perched water at 8 ft.
S-5	8.0	2	4-8-11-9	19		10				
						11			-same, moist	-residual soil
S-6	10.0	16	22-19-32-34	51	179.0	12	HW		Highly weathered ROCK	
						13				
S-7	12.0	5	36-42	78	177.0				Boring complete at 13 ft.	

NOTES: BOC = Backfilled on completion

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

LOG OF BORING NO. B-3

Sheet 1 of 1

LOG OF BORING NO. B-4

Sheet 1 of 1

PROJECT: Village of Bronxville Drainage Improvements - Hamilton Avenue
PROJECT NO.: 3423000048
PROJECT LOCATION: Bronxville, New York

WATER LEVEL (ft): NE ---- BOC
DATE: 10-30-23 ---- 10-30-23
NORTHING: ---- EASTING: ----

DATE STARTED: 10/30/2023
DATE COMPLETED: 10/30/2023
DRILLING CONTRACTOR: D.K. Drilling of New York, Inc.
DRILLER: Kostas
DRILLING METHOD: Continuous
SAMPLING METHOD: SPT

HAMMER TYPE: Automatic
GROUND SURFACE ELEVATION: 188.0 +/-
DATUM: TOPO
EQUIPMENT: CME 75
LOGGED BY: BG
CHECKED BY: RD

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					188.0	0			-6" Asphalt	
					187.5	1	FILL		Black, moist, medium dense, gravely sand with asphalt fragments	
S-1	0.0	14	24-12-11-6	23	187.0	2	SM		Gray-brown, moist, loose, Silty SAND	
						3				
S-2	2.0	20	4-4-5-6	9		4			-same, medium dense, with trace gravel	
						5				
S-3	4.0	18	9-11-8-9	19		6			-same, Brown	
						7				
S-4	6.0	8	10-9-8-6	17		8			-same	
						9				
S-5	8.0	12	9-8-12-18	20		10			-same, more Gravel	-residual soil
						11				
S-6	10.0	14	12-14-16-13	30		12			-same	
						13				
S-7	12.0	8	13-11	24	175.0				Boring complete at 13 ft.	

NOTES: BOC = Backfilled on completion

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

LOG OF BORING NO. B-4

Sheet 1 of 1

LOG OF BORING NO. B-5

Sheet 1 of 1

PROJECT: Village of Bronxville Drainage Improvements - Hamilton Avenue
PROJECT NO.: 3423000048
PROJECT LOCATION: Bronxville, New York

WATER LEVEL (ft): 15 ft. ---- BOC
DATE: 10-30-23 ---- 10-30-23
NORTHING: ---- EASTING: ----

DATE STARTED: 10/30/2023
DATE COMPLETED: 10/30/2023
DRILLING CONTRACTOR: D.K. Drilling of New York, Inc.
DRILLER: Dorbal
DRILLING METHOD: Continuous
SAMPLING METHOD: SPT

HAMMER TYPE: Automatic
GROUND SURFACE ELEVATION: 188.5 +/-
DATUM: TOPO
EQUIPMENT: CME 45
LOGGED BY: BG
CHECKED BY: RD

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					188.5	0			-6" Asphalt	
					188.0	1	FILL		FILL: Black to gray, moist, medium dense, silty sand, with asphalt fragments	
					187.5	2	SM		Gray brown, moist, loose, Silty SAND	
S-1	0.0	16	30-16-10-6	26		3				
						4			-same, very loose	
S-2	2.0	8	3-4-3-3	7		5				
						6				
S-3	4.0	16	1-2-2-1	4		7			-same, medium dense	
						8				
S-4	6.0	20	16-9-6-6	15		9				
						10			-same, brown, wet	-perched water at 8 ft.
S-5	8.0	8	3-4-6-6	10		11				
						12			-same, moist	
S-6	10.0	20	6-7-7-10	14		13				
						14			-same	
S-7	12.0	24	4-4-7-10	11		15				
						16			-same, wet	-residual soil
S-8	14.0	12	13-9-9-12	18	172.5	17	HW		Highly weathered ROCK	
S-9	16.0	18	20-26-100/2"	126+	171.3				Boring complete at 17.2 ft.	

NOTES: BOC = Backfilled on completion

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

LOG OF BORING NO. B-5

Sheet 1 of 1

LOG OF BORING NO. B-6

Sheet 1 of 1

PROJECT: Village of Bronxville Drainage Improvements - Hamilton Avenue
PROJECT NO.: 3423000048
PROJECT LOCATION: Bronxville, New York

WATER LEVEL (ft): 14 ft. ---- BOC
DATE: 10-30-23 ---- 10-30-23
NORTHING: ---- EASTING: ----

DATE STARTED: 10/30/2023
DATE COMPLETED: 10/30/2023
DRILLING CONTRACTOR: D.K. Drilling of New York, Inc.
DRILLER: Dorbal
DRILLING METHOD: Continuous
SAMPLING METHOD: SPT

HAMMER TYPE: Automatic
GROUND SURFACE ELEVATION: 180.5 +/-
DATUM: TOPO
EQUIPMENT: CME 45
LOGGED BY: BG
CHECKED BY: RD

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					180.5	0			5" Asphalt	
						1				
S-1	0.0	10	23-13-7-9	20		2				
					178.5	3	SM		Brown, moist, medium dense, Silty SAND and Gravel	
S-2	2.0	10	7-10-10-10	20		4				
						5			-same	
S-3	4.0	2	11-8-7-8	15		6				
						7			-same, Black	
S-4	6.0	8	11-12-10-10	22		8				
						9			-same, Gray, wet	-perched water at 8 ft.
S-5	8.0	8	6-10-11-10	21		10				
						11			-same, Gray-brown, moist	
S-6	10.0	16	9-10-12-16	22		12				
						13			-same	-residual soil
S-7	12.0	12	17-19-26-19	45	167.5	14	HW		Highly weathered ROCK	
						15			-same, wet	
S-8	14.0	12	46-60-100/2"	160+	165.3				Boring complete at 15.2 ft.	

NOTES: BOC = Backfilled on completion

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

LOG OF BORING NO. B-6

Sheet 1 of 1

LOG OF BORING NO. B-7

Sheet 1 of 1

PROJECT: Village of Bronxville Drainage Improvements - Hamilton Avenue
PROJECT NO.: 3423000048
PROJECT LOCATION: Bronxville, New York

WATER LEVEL (ft): NE ---- BOC
DATE: 10-30-23 ---- 10-30-23
NORTHING: ---- EASTING: ----

DATE STARTED: 10/30/2023
DATE COMPLETED: 10/30/2023
DRILLING CONTRACTOR: D.K. Drilling of New York, Inc.
DRILLER: Kostas
DRILLING METHOD: Continuous
SAMPLING METHOD: SPT

HAMMER TYPE: Automatic
GROUND SURFACE ELEVATION: 160.0 +/-
DATUM: TOPO
EQUIPMENT: CME 45
LOGGED BY: BG
CHECKED BY: RD

SAMPLE NUMBER	SAMPLE DEPTH (ft.)	SAMPLE RECOVERY (in.)	SAMPLE BLOWS/6 inches	SPT-N VALUE	ELEVATION (ft.)	DEPTH (ft.)	STRATA	GRAPHIC SYMBOL	DESCRIPTION	REMARKS
					160.0	0			-4" Asphalt	
					159.6	1	FILL		FILL: Brown, moist, dense, silty sand with gravel and debris	
						2			-same	
S-1	0.0	7	18-21-11-8	32		3				
						4			-same, black	
S-2	2.0	15	8-8-9-11	17		5				
						6				
S-3	4.0	1	7-8-7-6	15		7	SM		Brown, moist, medium dense, Silty SAND with Gravel	
					154.0	8				
S-4	6.0	5	4-8-8-5	16		9			-same, wet	-perched water at 8 ft.
						10				
S-5	8.0	8	2-3-3-2	6		11			-same, moist	
						12				
S-6	10.0	14	3-3-8-14	11		13			-same	-residual soil
						14				
S-7	12.0	22	18-14-15-12	29	146.0	15	HW		Highly weathered ROCK	
S-8	14.0	14	19-28-40-50/2"	68	144.8				Boring complete at 15.2 ft.	

NOTES: BOC = Backfilled on completion

GEO-TECHNOLOGY ASSOCIATES, INC.
211-K Gates Road
Little Ferry, NJ 07643

LOG OF BORING NO. B-7

Sheet 1 of 1

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FAX.: 973.683.0077

N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

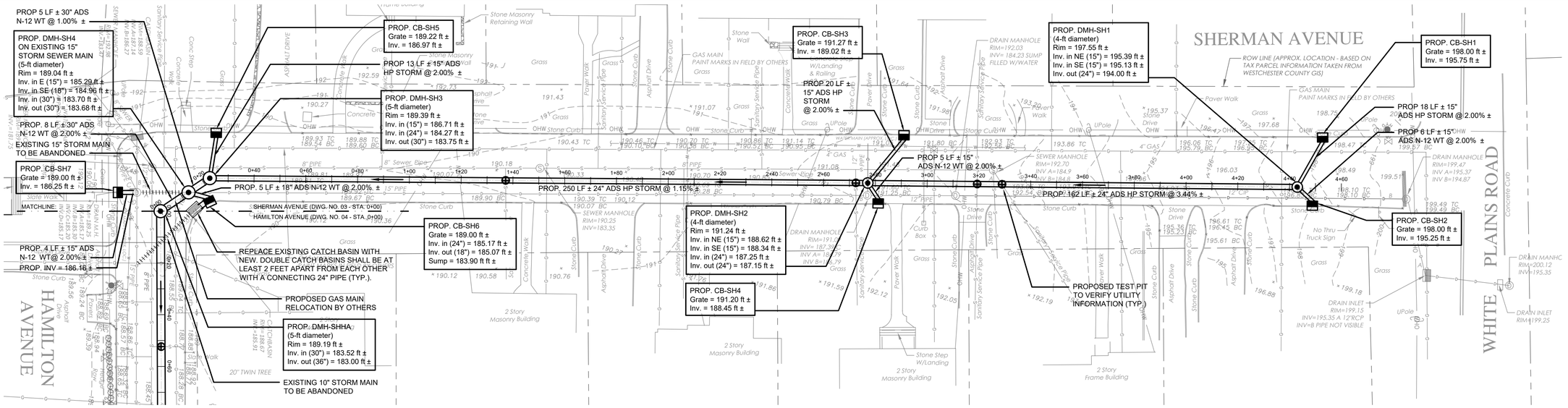
REV.	DATE	DESCRIPTION

project name
VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

BORING LOGS

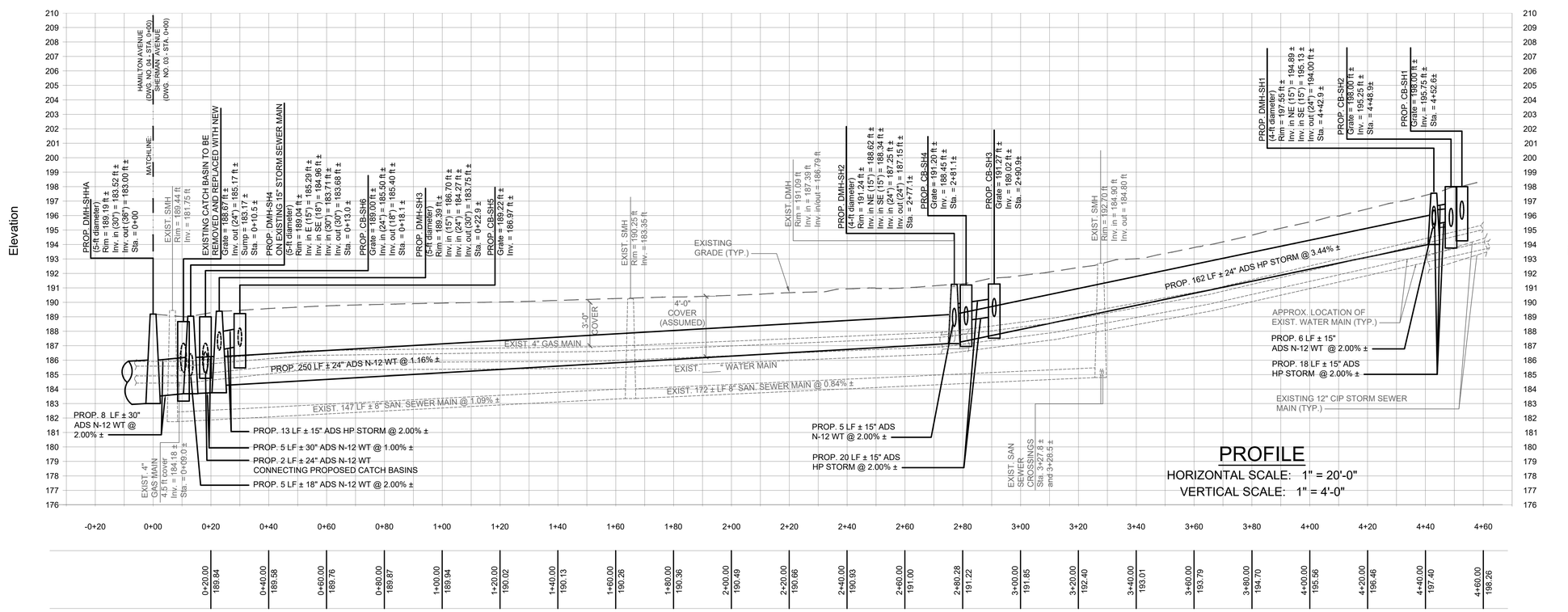
drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	02B



PLAN

HORIZONTAL SCALE: 1" = 20'-0"

LEGEND (EXISTING)	
	MANHOLES
	DRAIN INLETS/INLETS
GB	GAS VALVE/GAS BOX
	WATER VALVE
	HYDRANT
	WATER SHUT OFF VALVE
	UTILITY POLE
	LIGHT POST
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL



PROFILE

HORIZONTAL SCALE: 1" = 20'-0"

VERTICAL SCALE: 1" = 4'-0"

LEGEND (EXISTING)	
W	WATER MAIN
D	DRAINAGE PIPE
G	GAS MAIN
S	SANITARY SEWER MAIN
E	ELECTRICAL LINE
OHW	OVERHEAD WIRES

NOTES:

1. ALL PROPOSED MANHOLE CASTING COVERS SHALL BE 24" IN DIAMETER UNLESS OTHERWISE NOTED.
2. ALL PROPOSED DRAINAGE MANHOLES SHALL BE 4-FT AND 5-FT IN DIAMETER UNLESS OTHERWISE NOTED.
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UTILITY AND TOPOGRAPHIC SURVEY PREPARED BY:
T.C. MERRITTS LAND SURVEYORS
394 BEDFORD ROAD, PLEASANTVILLE, NY 10570
PHONE NO.: (914) 769 - 8003

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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

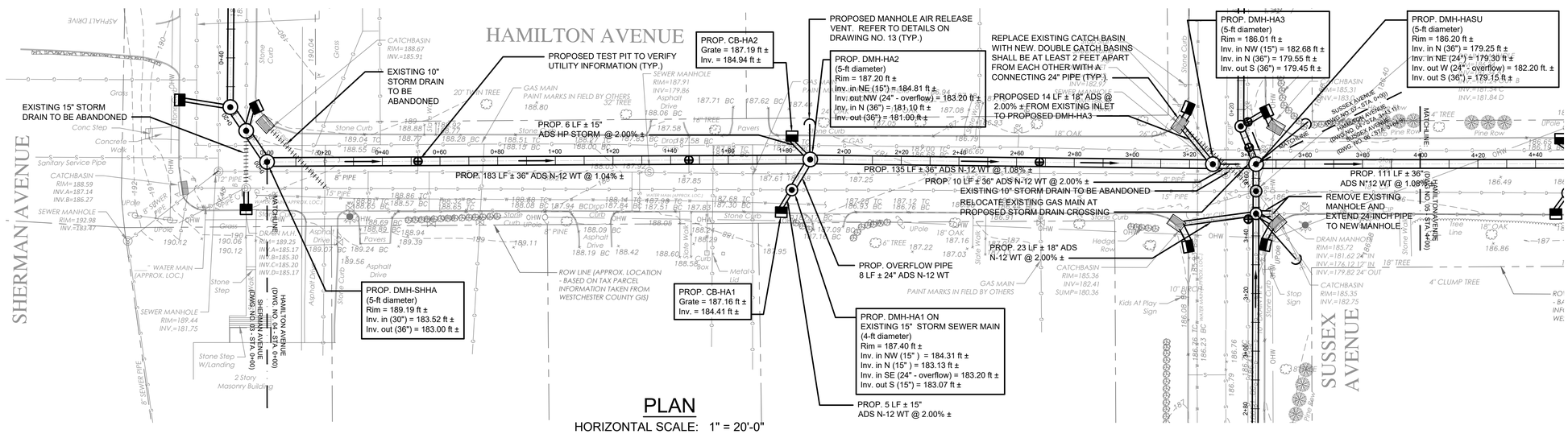
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN AND PROFILE
SHERMAN AVENUE - STA. 0+00 TO 4+42.9

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	03



PLAN

HORIZONTAL SCALE: 1" = 20'-0"

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

LEGEND (EXISTING)	
MH S D E T	MANHOLES
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GV GB	GAS VALVE/GAS BOX
WV	WATER VALVE
	HYDRANT
	WATER SHUT OFF VALVE
	UTILITY POLE
	LIGHT POST
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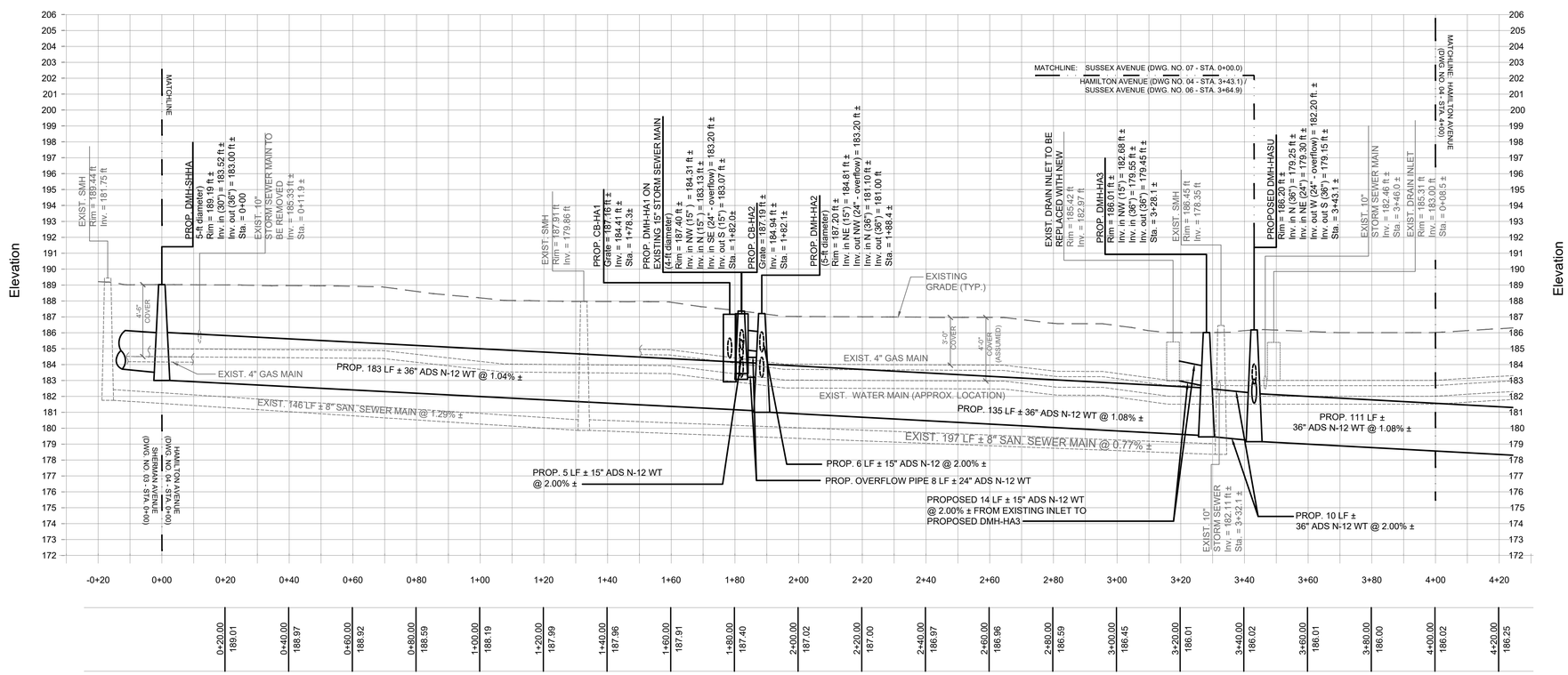
BW	BOTTOM OF WALL

LEGEND (EXISTING)	
W W W W W	WATER MAIN
D D D D D	DRAINAGE PIPE
G G G G G	GAS MAIN
S S S S S	SANITARY SEWER MAIN
E E E E E	ELECTRICAL LINE
OHW OHW OHW OHW	OVERHEAD WIRES



PROFILE

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 4'-0"

NOTES:

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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

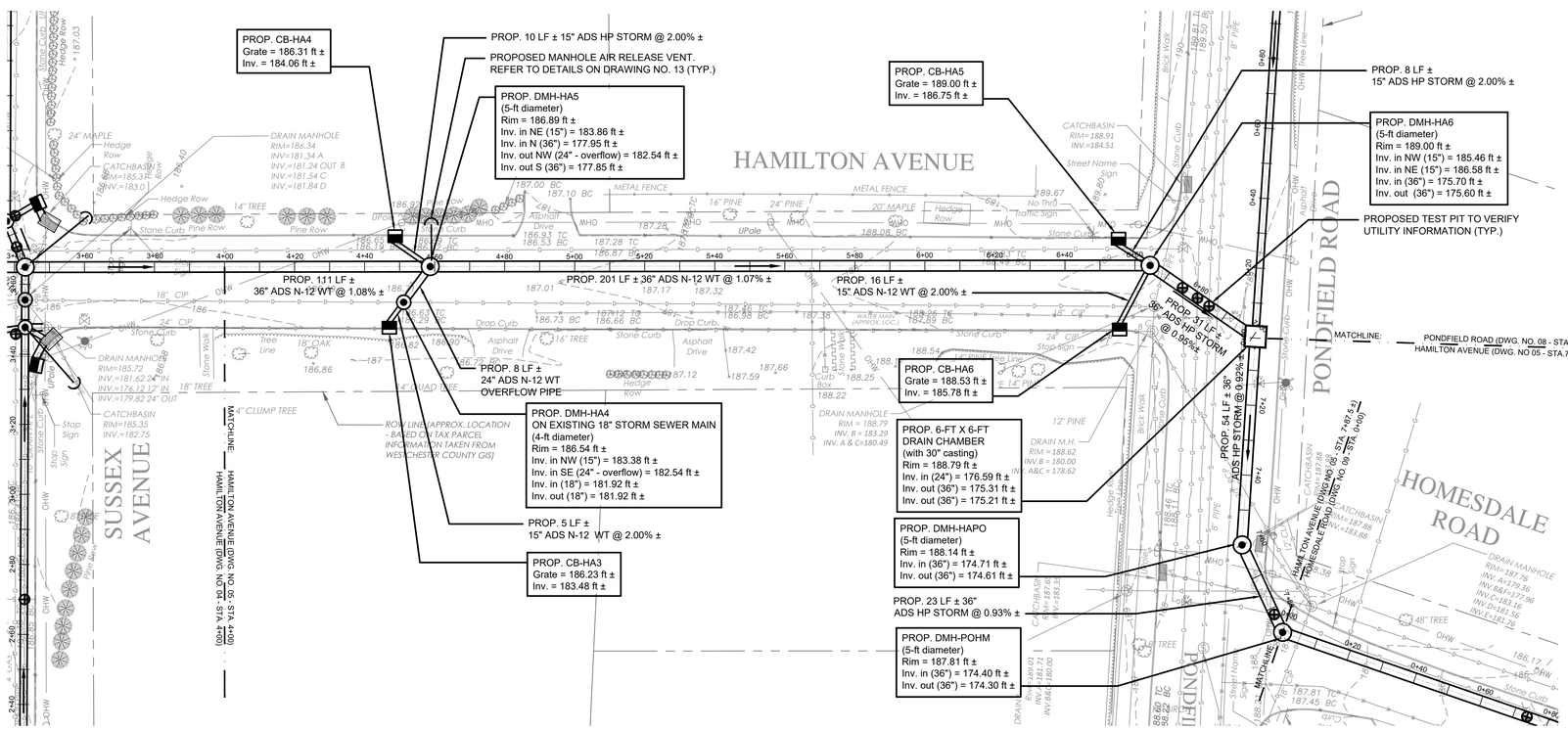
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN AND PROFILE
HAMILTON AVENUE - STA. 0+00 TO 4+00

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	04



PLAN

HORIZONTAL SCALE: 1" = 20'-0"

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

LEGEND (EXISTING)	
MH S D E T	MANHOLES
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	HYDRANT
	WATER SHUT OFF VALVE
	UTILITY POLE
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D	DRAINAGE PIPE
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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

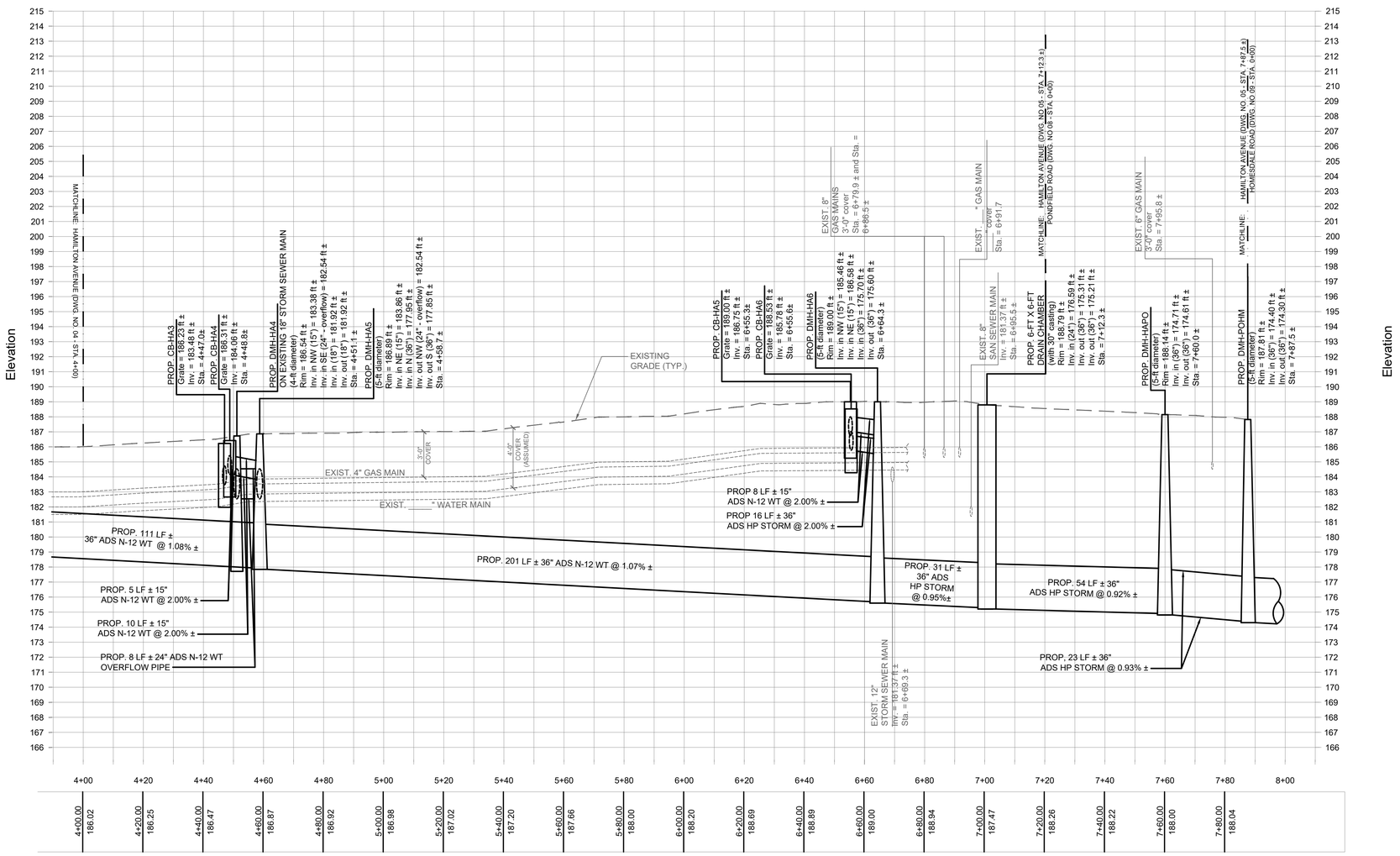
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN
HAMILTON AVENUE - STA. 4+00 TO 7+87.5

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	05A



PROFILE

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VERTICAL SCALE: 1" = 4'-0"

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WESTCHESTER COUNTY, NEW YORK

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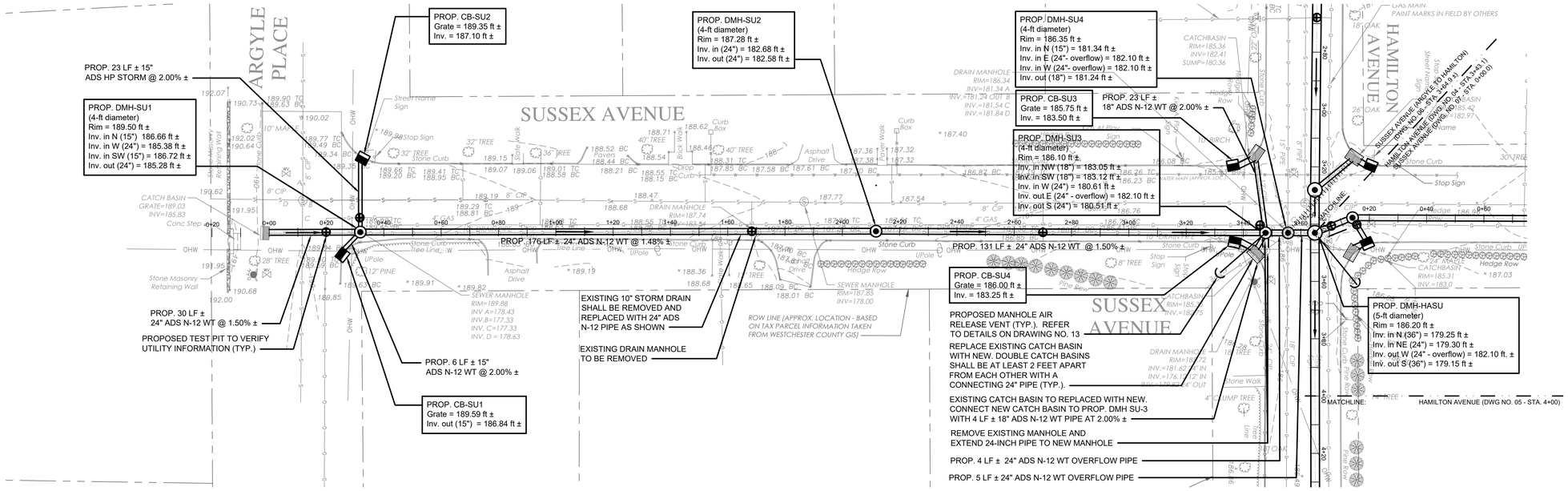
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

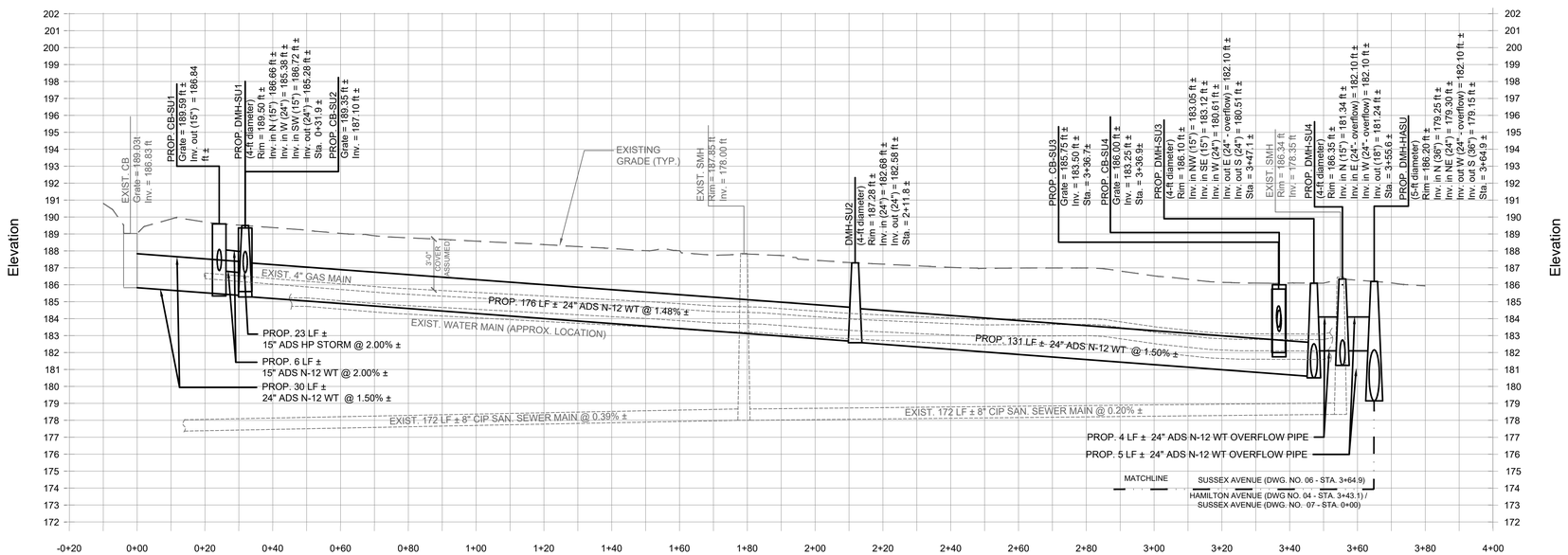
DRAINAGE IMPROVEMENT PROFILE
HAMILTON AVENUE - STA. 4+00 TO 7+87.5

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	05B



PLAN

HORIZONTAL SCALE: 1" = 20'-0"



PROFILE

HORIZONTAL SCALE: 1" = 20'-0"

VERTICAL SCALE: 1" = 4'-0"

GRAPHIC SCALE

20 0 10 20

(IN FEET)

1 inch = 20 ft.

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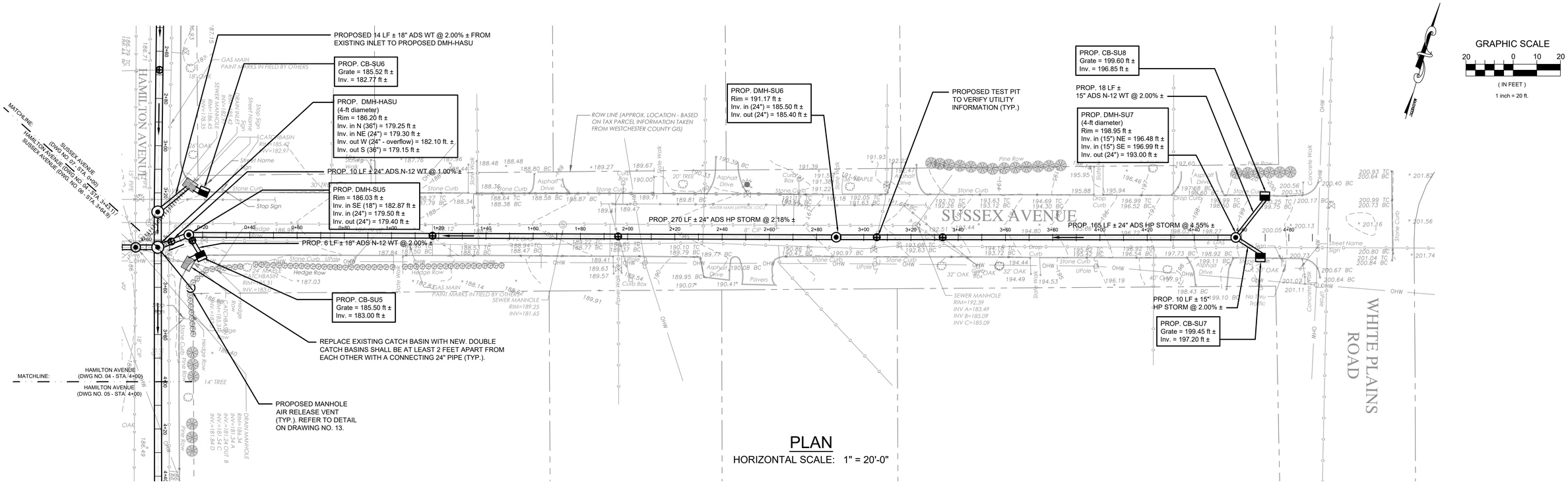
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN AND PROFILE - SUSSEX AVENUE
(ARGYLE PLACE TO HAMILTON AVENUE) - STA. 0+00 TO 3+64.9

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	06



PLAN

HORIZONTAL SCALE: 1" = 20'-0"

LEGEND (EXISTING)	
MH S D E T	MANHOLES
	DRAIN INLETS/INLETS
GV GB	GAS VALVE/GAS BOX
WV	WATER VALVE
	HYDRANT
WSP	WATER SHUT OFF VALVE
	UTILITY POLE
	LIGHT POST
TC	TOP OF CURB
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LEGEND (EXISTING)	
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G	GAS MAIN
S	SANITARY SEWER MAIN
E	ELECTRICAL LINE
OHW	OVERHEAD WIRES

NOTES:

1. ALL PROPOSED MANHOLE CASTING COVERS SHALL BE 24" IN DIAMETER UNLESS OTHERWISE NOTED.
2. ALL PROPOSED DRAINAGE MANHOLES SHALL BE 4-FT AND 5-FT IN DIAMETER UNLESS OTHERWISE NOTED.
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UTILITY AND TOPOGRAPHIC SURVEY PREPARED BY:
T.C. MERRITTS LAND SURVEYORS
394 BEDFORD ROAD, PLEASANTVILLE, NY 10570
PHONE NO. : (914) 769 - 8003

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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

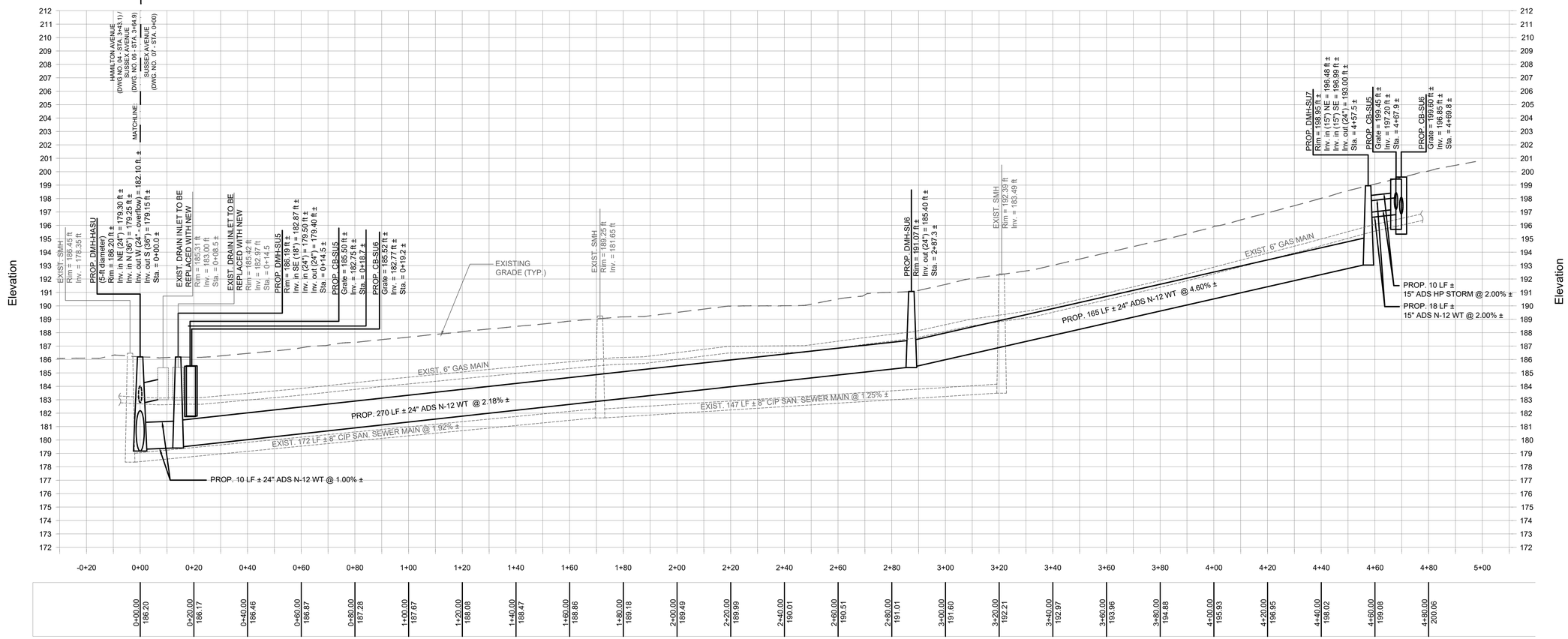
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN - SUSSEX AVENUE
(HAMILTON AVENUE TO WHITE PLAINS ROAD) - STA. 0+00 TO 4+69.8

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	07A



PROFILE

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 4'-0"

NOTES:

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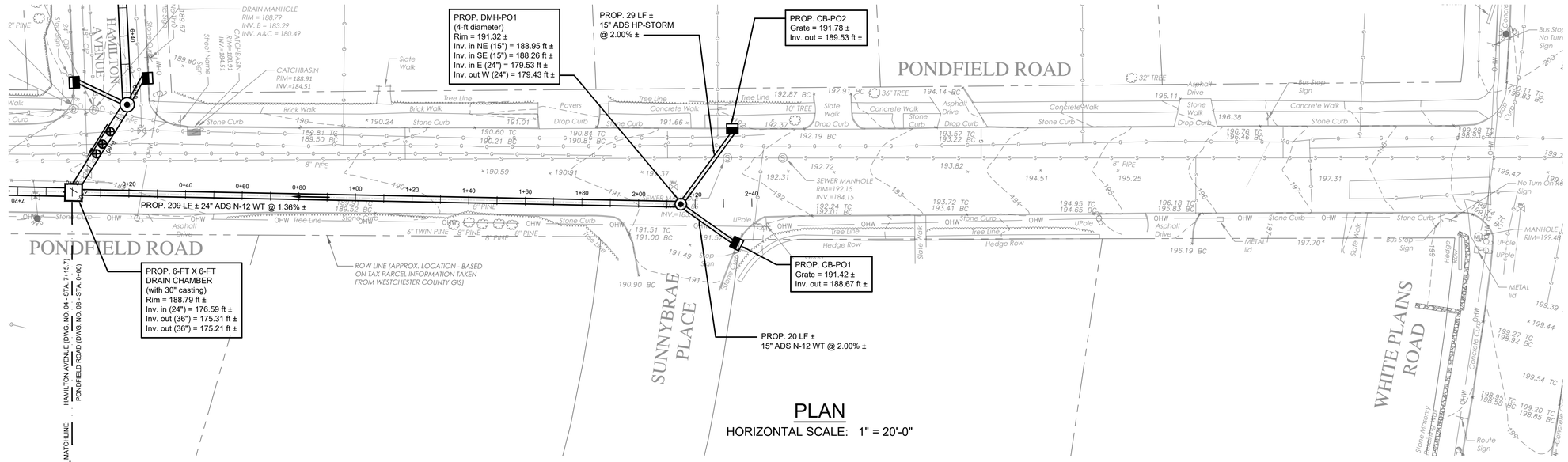
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PROFILE - SUSSEX AVENUE
(HAMILTON AVENUE TO WHITE PLAINS ROAD) - STA. 0+00 TO 4+69.8

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	07B



PLAN

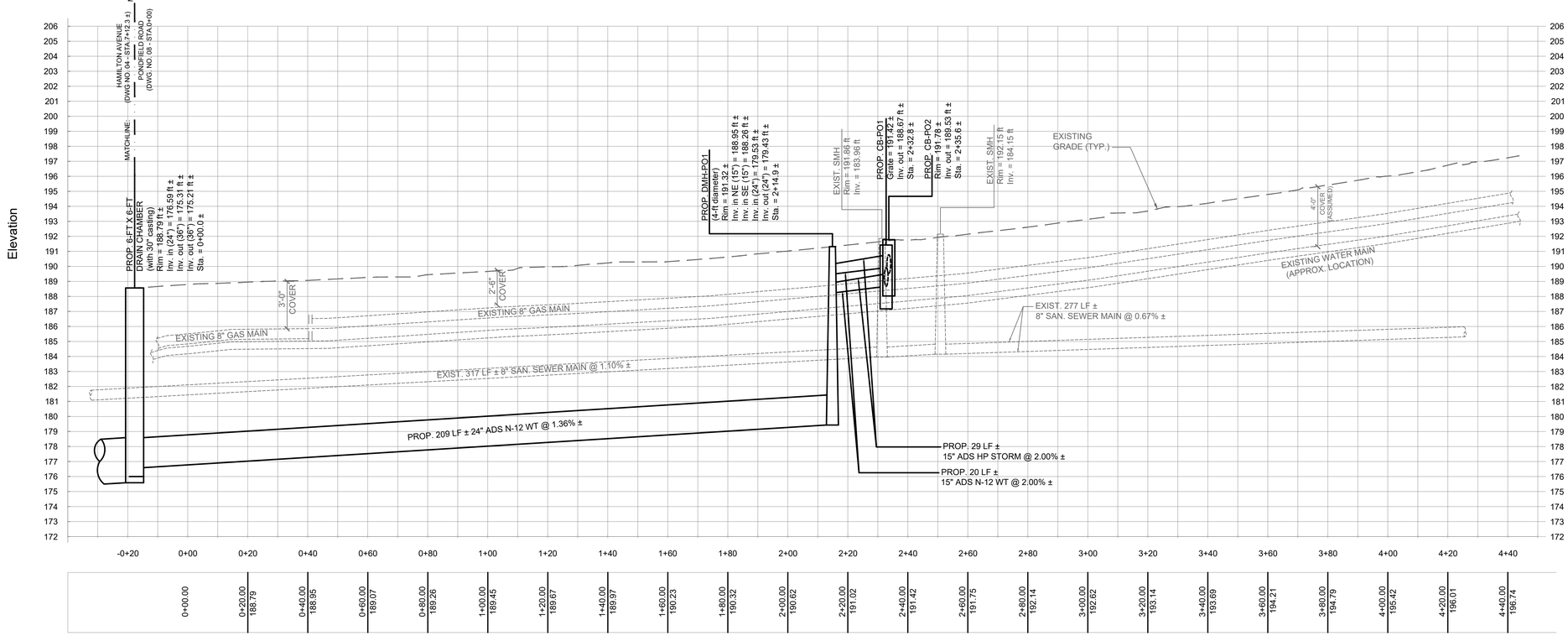
HORIZONTAL SCALE: 1" = 20'-0"

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

LEGEND (EXISTING)	
MH S D E T	MANHOLES
	DRAIN INLETS/INLETS
GV GB	GAS VALVE/GAS BOX
WV	WATER VALVE
	HYDRANT
	WATER SHUT OFF VALVE
	UTILITY POLE
	LIGHT POST
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL



PROFILE

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 4'-0"

LEGEND (EXISTING)	
W	WATER MAIN
D	DRAINAGE PIPE
G	GAS MAIN
S	SANITARY SEWER MAIN
E	ELECTRICAL LINE
OHW	OVERHEAD WIRES

NOTES:

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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

REV.	DATE	DESCRIPTION

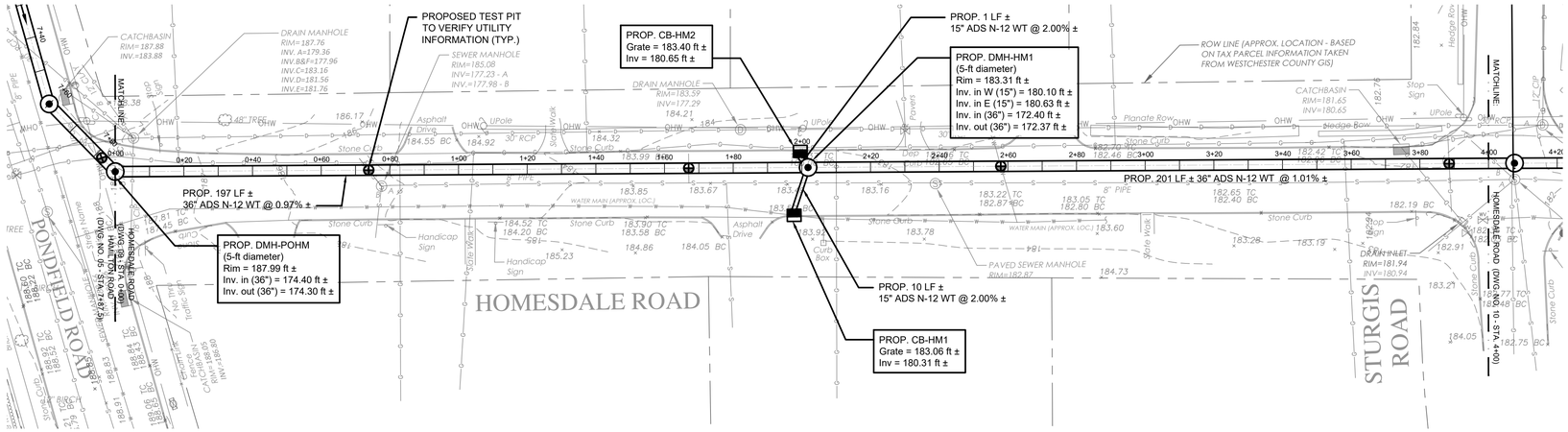
project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1

HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN AND PROFILE
PONDFIELD ROAD - STA. 0+00 TO 2+35.6

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	08



PLAN

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GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

LEGEND (EXISTING)	
MH S D E T	MANHOLES
	DRAIN INLETS//INLETS
GV GB	GAS VALVE/GAS BOX
WV	WATER VALVE
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	WATER SHUT OFF VALVE
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TC	TOP OF CURB
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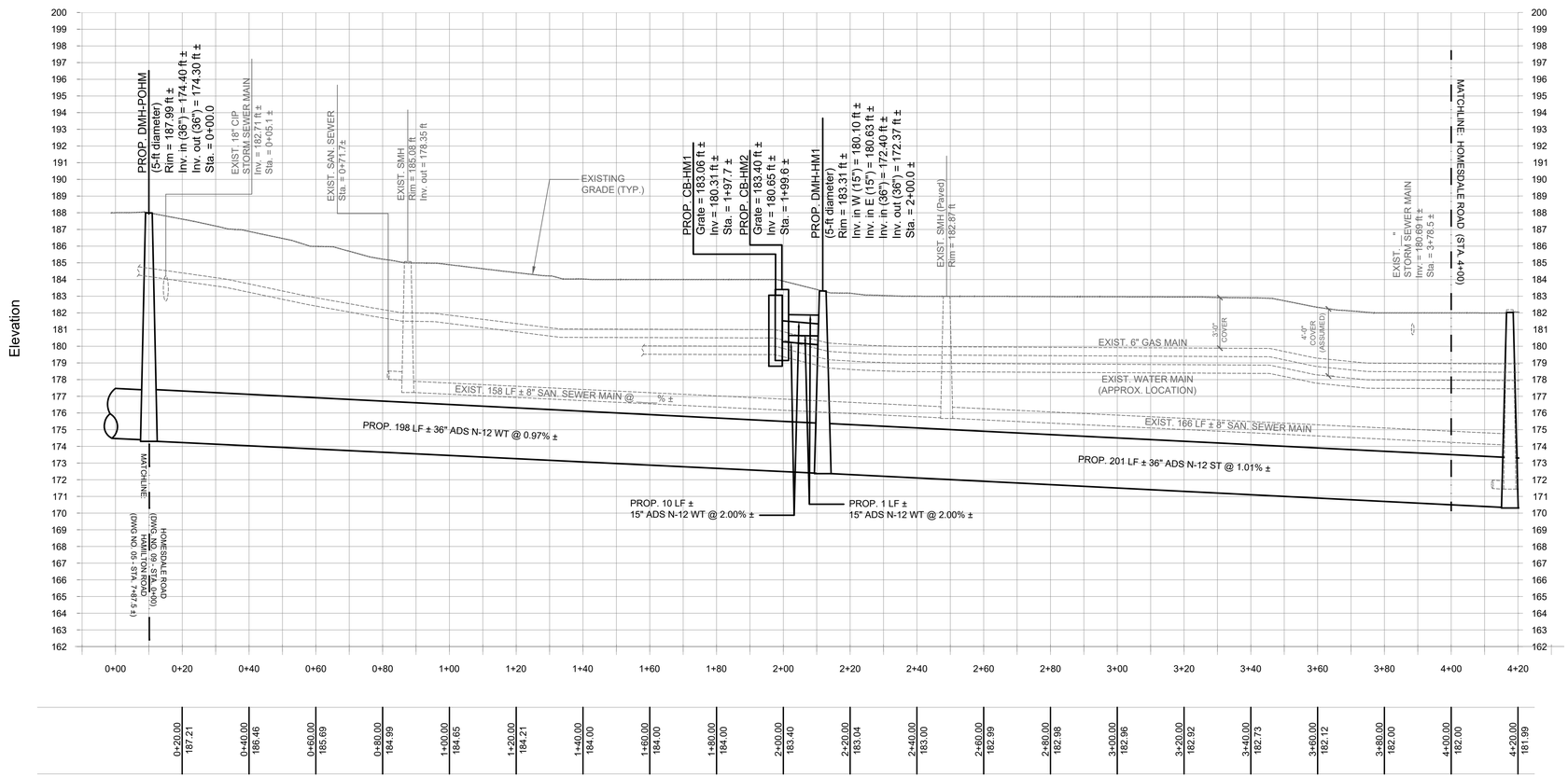
LEGEND (EXISTING)	
W	WATER MAIN
D	DRAINAGE PIPE
G	GAS MAIN
S	SANITARY SEWER MAIN
E	ELECTRICAL LINE
OHW	OVERHEAD WIRES



PROFILE

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VERTICAL SCALE: 1" = 4'-0"

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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

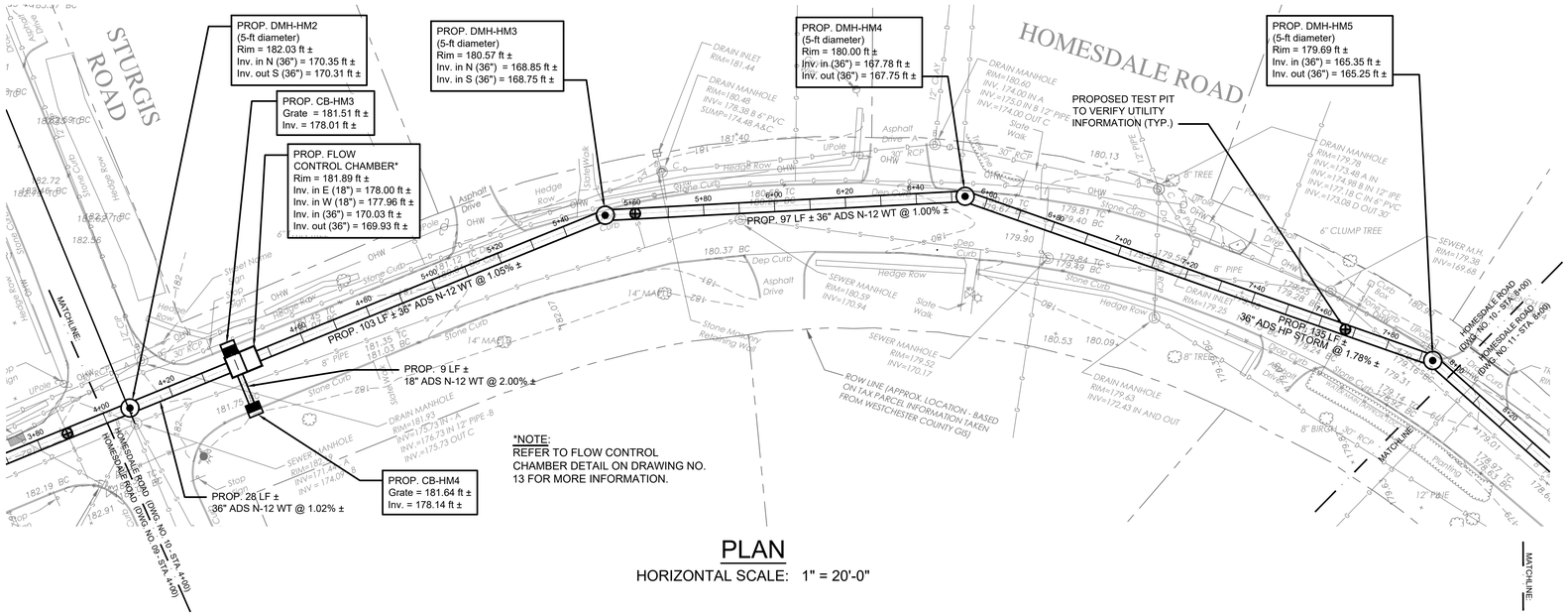
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN AND PROFILE
HOMESDALE ROAD - STA. 0+00 TO 4+00

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	09



*NOTE:
REFER TO FLOW CONTROL CHAMBER DETAIL ON DRAWING NO. 13 FOR MORE INFORMATION.

PLAN

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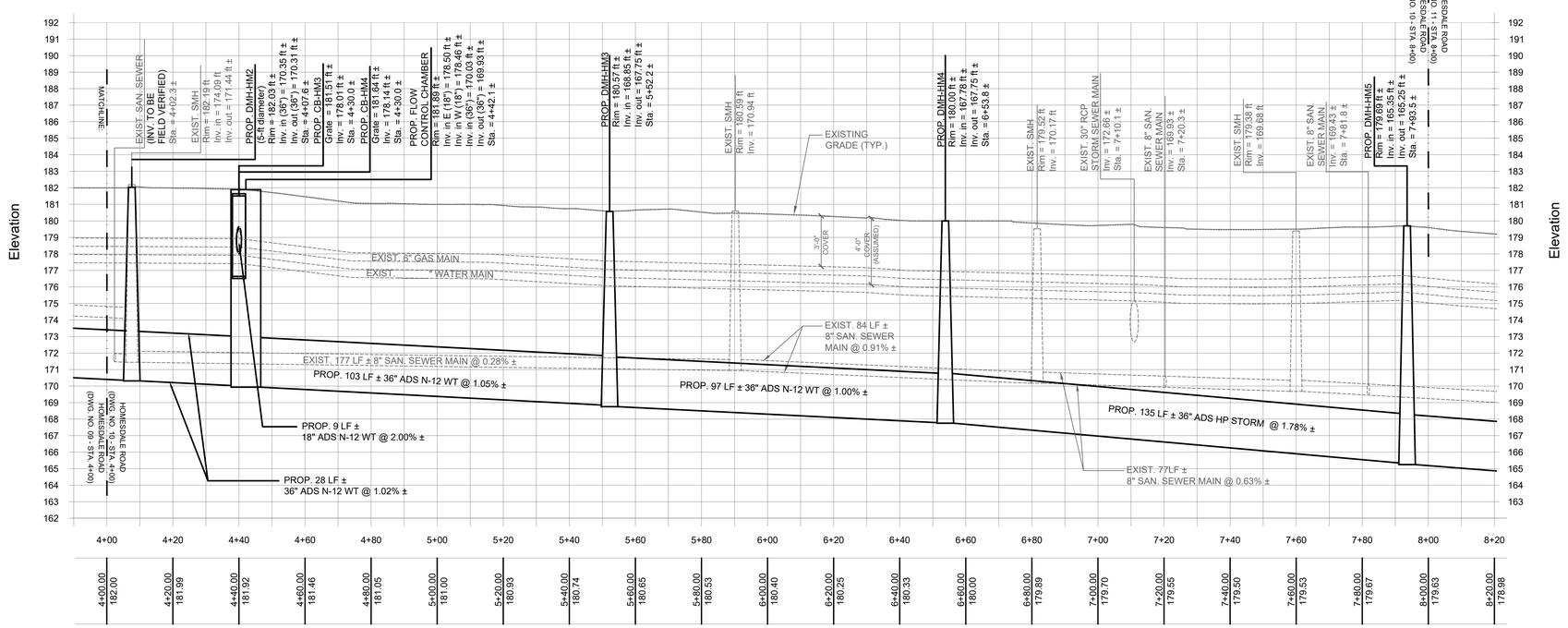

PROFILE

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VERTICAL SCALE: 1" = 4'-0"

LEGEND (EXISTING)	
Ⓜ Ⓢ Ⓓ Ⓔ Ⓣ	MANHOLES
	DRAIN INLETS/INLETS
GV GB	GAS VALVE/GAS BOX
WV	WATER VALVE
	HYDRANT
	WATER SHUT OFF VALVE
	UTILITY POLE
	LIGHT POST
TC	TOP OF CURB
BC	BOTTOM OF CURB
TW	TOP OF WALL
BW	BOTTOM OF WALL

LEGEND (EXISTING)	
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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

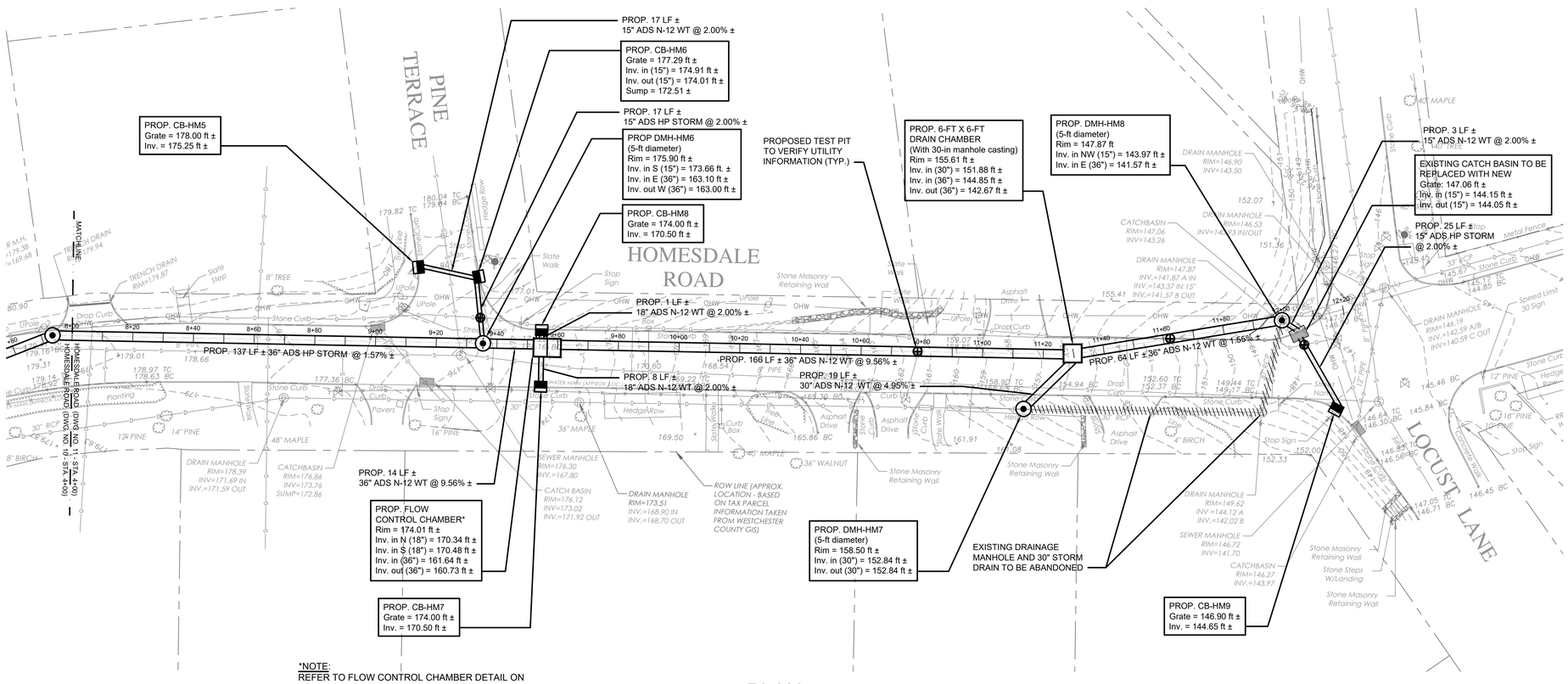
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN AND PROFILE
HOMESDALE ROAD - STA. 4+00 TO 8+00

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	10



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PLAN

HORIZONTAL SCALE: 1" = 20'-0"

MAGNETIC

GRAPHIC SCALE

20 0 10 20

(IN FEET)
1 inch = 20 ft.

LEGEND (EXISTING)	
MH S D E T	MANHOLES
	DRAIN INLETS/INLETS
GV GB	GAS VALVE/GAS BOX
WV	WATER VALVE
	HYDRANT
SP	WATER SHUT OFF VALVE
	UTILITY POLE
	LIGHT POST
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LEGEND (EXISTING)	
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D D D D D	DRAINAGE PIPE
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PHONE NO. : (914) 769 - 8003

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1719 ROUTE 10 SUITE 225
PARSIPPANY, NEW JERSEY 07054
PH.: 973.683.0044
FAX.: 973.683.0077

N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

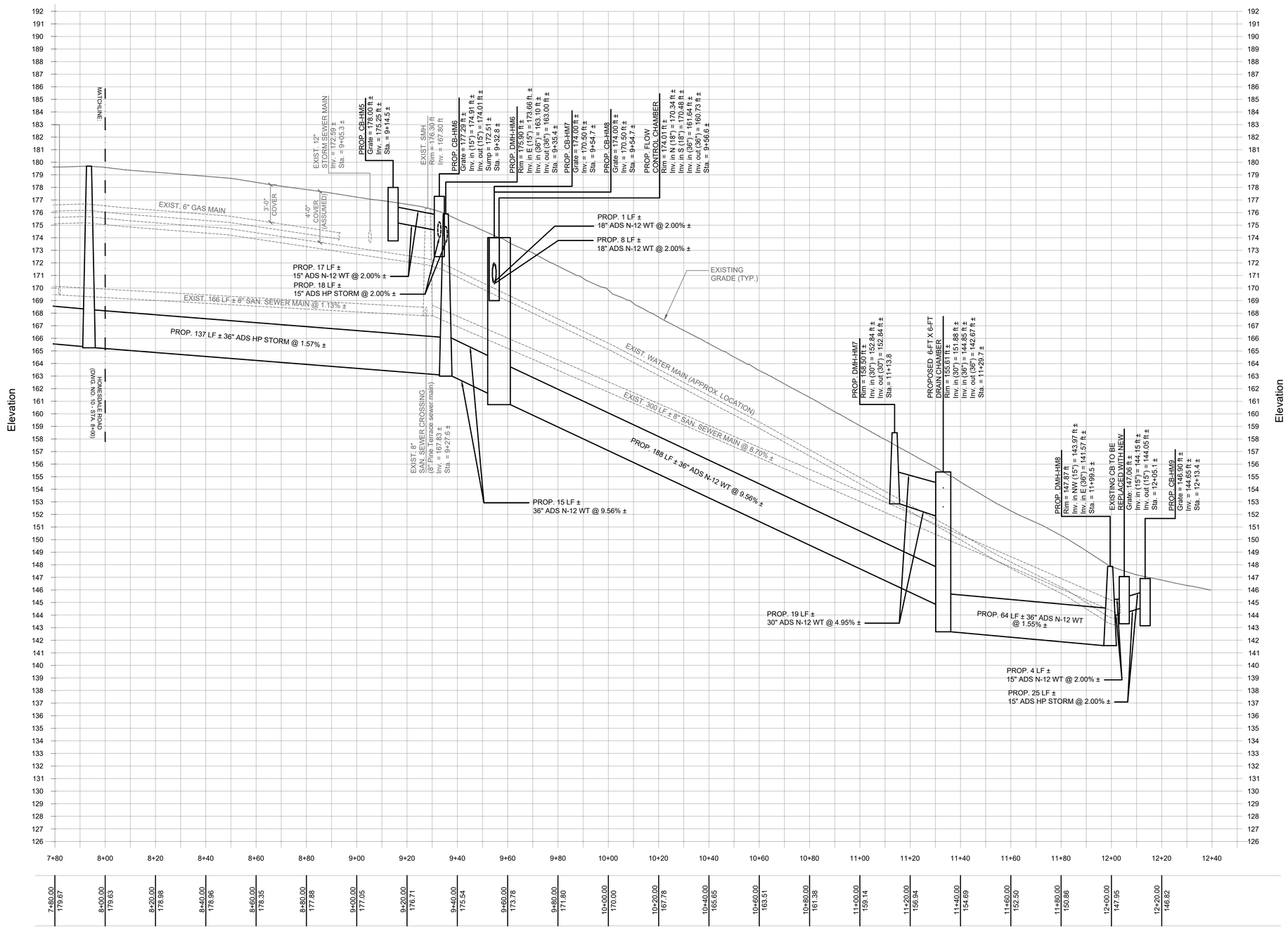
REV.	DATE	DESCRIPTION

project name
VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PLAN
HOMESDALE ROAD - STA. 8+00 TO 11+99.5

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	11A



PROFILE

HORIZONTAL SCALE: 1" = 20'-0"
VERTICAL SCALE: 1" = 4'-0"

NOTES:

1. ALL PROPOSED MANHOLE CASTING COVERS SHALL BE 24" IN DIAMETER UNLESS OTHERWISE NOTED.
2. ALL PROPOSED DRAINAGE MANHOLES SHALL BE 4-FT AND 5-FT IN DIAMETER UNLESS OTHERWISE NOTED.
3. ALL CATCH BASIN OUTLET PIPES SHALL BE A MINIMUM OF 15" IN DIAMETER WITH 2.00% ± SLOPE.
4. ALL DOUBLE CATCH BASINS SHALL BE CONNECTED TOGETHER WITH A 24" PIPE.
5. ALL CATCH BASIN OUTLET PIPES FROM DOUBLE INLETS SHALL BE AT MINIMUM OF 18" DIAMETER AT 2.00% ± SLOPE.
6. STANDARD CATCH BASINS SHOULD BE 42" X 48" X 60" DEEP (TYP.). A SHALLOW CATCH BASIN (42"X48"X48" DEEP) MAY BE SUBSTITUTED TO ACCOMMODATE FIELD CONDITIONS. THE CONTRACTOR SHALL FIELD VERIFY THE DEPTH OF ALL UTILITY CROSSINGS AND CONFIRM THE REQUIRED DEPTH OF CATCH BASINS AND OUTLET PIPES. DEPENDING ON THE FIELD INFORMATION OBTAINED, THE ENGINEER MAY REQUIRE INSTALLATION OF A DEEPER CATCH BASIN. AS SUCH, THE CONTRACTOR SHALL SECURE THE ENGINEER'S APPROVAL BEFORE PLACING THE ORDERS FOR THE DRAINAGE STRUCTURES.
7. ALL CATCH BASIN KNOCKOUTS SHALL BE FILLED WITH CONCRETE AND APPROPRIATELY SEALED AND GROUTED.
8. ALL EXISTING DRAIN PIPES FROM PRIVATE PROPERTIES SHOULD BE CONNECTED TO NEW MANHOLES OR CATCH BASINS, WHERE APPROVED BY THE ENGINEER.
9. CONTRACTOR SHALL REMOVE ALL ABANDONED PIPES WHERE NECESSARY. ABANDONED PIPES THAT ARE LEFT IN PLACE SHALL BE FILLED WITH FLY ASH SLURRY AND CAPPED WITH CONCRETE OR OTHER METHODS AS APPROVED BY THE ENGINEER.
10. WATER MAIN UTILITY INFORMATION AS SHOWN ON PLANS IS APPROXIMATE AND IS BASED ON FIELD MARKING INFORMATION BY THE ENGINEER.

UTILITY AND TOPOGRAPHIC SURVEY PREPARED BY:
T.C. MERRITTS LAND SURVEYORS
394 BEDFORD ROAD, PLEASANTVILLE, NY 10570
PHONE NO. : (914) 769 - 8003

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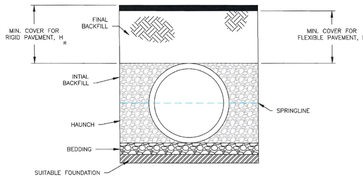
CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

DRAINAGE IMPROVEMENT PROFILE
HOMESDALE ROAD - STA. 8+00 TO 11+99.5

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	11B

Typical Backfill Structure



H_R, H_F = 12" (0.15m) FOR PIPE DIAMETERS UP TO 48" (1200mm)
= 24" (0.6m) FOR PIPE DIAMETERS 54" (1350mm) AND 60" (1500mm)

BEDDING = 6" (100mm) MIN

FILL AS SPECIFIED BY DESIGN ENGINEER

STRUCTURAL BACKFILL (SEE NOTE)

STRUCTURAL BACKFILL
SEE ADS INSTALLATION REQUIREMENTS / HANDBOOK, TABLE A–5–2 OR APPENDIX A–5 FOR MATERIAL AND COMPACTION REQUIREMENTS BASED ON PIPE MATERIAL AND APPLICATION.

NOTES:

1. TRENCH WIDTH FOR PIPES 24" AND SMALLER DIAMETER SHALL BE PIPE OD PLUS 12" ON BOTH SIDES OF THE PIPE.
2. TRENCH WIDTH FOR PIPES 36" DIAMETER SHALL BE 84" MIN.
3. THE HAUNCH AREA BELOW THE SPRING LINE SHALL BE ADEQUATELY PACKED IN THE HAUNCH AREA. ALL INITIAL BACKFILL AROUND THE PIPE SHALL BE COMPACTED IN 4-INCH LIFTS AND SHALL BE FIELD PROCTOR DENSITY TESTED.
4. BACKFILL AROUND THE PIPE SHALL BE COMPACTED AND APPROVED CLASS-I MATERIAL.
5. THE FINAL BACKFILL SHALL BE ITEM 4 COMPACTED IN 12" LIFTS.
6. APPROVED CLASS-I BACKFILL MATERIAL SHOULD INCLUDE LITTLE TO NO FINES. SIEVE SIZE 3/8" AND #200 PERCENT PASSING SHOULD BE <25% AND <12.5%. WHERE % PASSING FINES ARE GREATER, THE USE OF AN APPROVED GEOTEXTILE FABRIC WILL BE REQUIRED TO PREVENT FINES MIGRATION.
7. STORM SEWER PIPE SHALL BE HANDLED AND INSTALLED PER ADS PIPE INSTALLATION REQUIREMENTS, INCLUDING CLASS-1 COMPACTION BACKFILL, MANHOLE AND CATCH BASIN CONNECTIONS, TESTING, AND REPAIRS.

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4" (100mm)	21" (533mm)
6" (150mm)	23" (584mm)
8" (200mm)	26" (660mm)
10" (250mm)	28" (711mm)
12" (300mm)	30" (762mm)
15" (375mm)	34" (864mm)
18" (450mm)	39" (991mm)
24" (600mm)	48" (1219mm)
30" (750mm)	56" (1422mm)
36" (900mm)	64" (1626mm)
42" (1050mm)	72" (1829mm)
48" (1200mm)	80" (2032mm)
60" (1500mm)	96" (2438mm)

MAXIMUM RECOMMENDED COVER BASED ON VEHICULE LOADING CONDITIONS

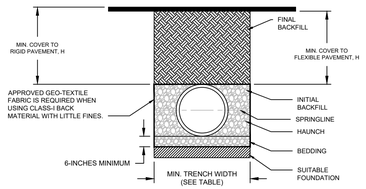
PIPE DIAM.	CLASS I COMPACTED	CLASS I DUMPED	CLASS II 95%	CLASS II 90%	CLASS III 95%
4" (100mm)	37 (11.3m)	18 (5.5m)	25 (7.6m)	18 (5.5m)	18 (5.5m)
6" (150mm)	44 (13.4m)	20 (6.1m)	29 (8.8m)	20 (6.1m)	21 (6.4m)
8" (200mm)	32 (9.8m)	15 (4.6m)	22 (6.7m)	15 (4.6m)	16 (4.9m)
10" (250mm)	38 (11.6m)	18 (5.5m)	26 (7.9m)	18 (5.5m)	18 (5.5m)
12" (300mm)	35 (10.7m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
15" (375mm)	38 (11.6m)	17 (5.2m)	25 (7.6m)	17 (5.2m)	18 (5.5m)
18" (450mm)	36 (11.0m)	17 (5.2m)	24 (7.3m)	17 (5.2m)	17 (5.2m)
24" (600mm)	28 (8.5m)	13 (4.0m)	20 (6.1m)	13 (4.0m)	14 (4.3m)
30" (750mm)	26 (8.0m)	13 (4.0m)	19 (5.8m)	13 (4.0m)	14 (4.3m)
36" (900mm)	26 (7.9m)	12 (3.7m)	18 (5.5m)	13 (4.0m)	13 (4.0m)
42" (1050mm)	23 (7.0m)	11 (3.4m)	16 (4.9m)	11 (3.4m)	13 (3.4m)
48" (1200mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)
60" (1500mm)	25 (7.6m)	11 (3.4m)	17 (5.2m)	11 (3.4m)	12 (3.7m)

FILL HEIGHT TABLE GENERATED USING AASHTO SECTION 12, LOAD RESISTANCE FACTOR DESIGN (LRFD) PROCEDURE WITH THE FOLLOWING ASSUMPTIONS:
NO HYDROSTATIC PRESSURE,
UNIT WEIGHT OF SOIL (γ_S) = 120 PCF

TRENCH INSTALLATION DETAILS (ADS PIPE)

N.T.S.

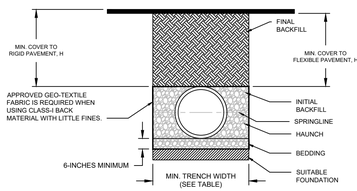
ADS HP Storm Pipe Trench Detail with Uniform Backfill (Traffic and Non-Traffic Applications)



NOTES:

1. HP STORM PIPE SHALL BE USED WHERE PIPE COVER (H) IS LESS THAN 18-INCHES AND MORE THAN 10-FEET.
2. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND ADS RECOMMENDED INSTALLATION GUIDELINES.
3. APPROVED CLASS-I BACKFILL MATERIAL SHOULD INCLUDE LITTLE TO NO FINES. SIEVE SIZE 3/ 8" AND #200 PERCENT PASSING SHOULD BE <25% AND <12.5%. WHERE % PASSING FINES ARE GREATER, AN APPROVED GEOTEXTILE FABRIC WILL BE REQUIRED TO PREVENT FINES MIGRATION.

ADS N-12®, N-12 ST, and N-12 WT (per AASHTO) Trench Detail Under Pavement



NOTES:

1. ADS N-12 WT SHALL BE USED WHERE PIPE COVER (H) IS MORE THAN 18-INCHES AND LESS THAN 10-FEET.
2. INSTALLATION SHALL BE IN ACCORDANCE WITH ASTM D2321 AND ADS RECOMMENDED INSTALLATION GUIDELINES.
3. APPROVED CLASS-I BACKFILL MATERIAL SHOULD INCLUDE LITTLE TO NO FINES. SIEVE SIZE 3/ 8" AND #200 PERCENT PASSING SHOULD BE <25% AND <12.5%. WHERE % PASSING FINES ARE GREATER, AN APPROVED GEOTEXTILE FABRIC WILL BE REQUIRED TO PREVENT FINES MIGRATION.

ADS N-12® WT / HP STORM PIPE (ASTM F2648) SPECIFICATION

Scope

This specification describes 4- through 60-inch (100 to 1500 mm) ADS N-12 WT / HP STORM pipe or approved ec (per ASTM F2648). The 12-inch N-12 pipe shall be used where pipe cover is required to avoid utility conflicts, where shown and as approved by the owner.

Pipe Requirements

ADS N-12 WT / HP STORM pipe (per ASTM F2648) shall have a smooth interior and annular exterior corrugation

- 4- through 60-inch (100 to 1500 mm) pipe shall meet ASTM F2648.
- Manning's "n" value for use in design shall be 0.012

Joint Performance

Pipe shall be joined using a bell & spigot joint meeting ASTM F2648. The joint shall be soil-tight and gaskets for diameters 12- through 60-inch, shall meet the requirements of ASTM F477. For diameters 4- through 10-inch, the joint shall be soil-tight using an engaging dimple connection. Gaskets shall be installed by the pipe manufacturer and covered with a removable, protective wrap to ensure the gasket is free from debris. A joint lubricant available from the manufacturer shall be used on the gasket and bell during assembly.

Fittings

Fittings shall conform to ASTM F2306. Bell and spigot connections shall utilize a welded bell and valley or saddle gasket meeting the soil-tight joint performance requirements of ASTM F2306. ADS adaptor fittings shall be used to install N12 pipe connections to precast catch basins and manholes.

Installation

Installation shall be in accordance with ASTM D2321 and ADS recommended installation guidelines, with the exception that minimum cover in trafficked areas for 4- through 48-inch (100 to 1200 mm) diameters shall be one foot (0.3 m) and for 60-inch (1500 mm) diameter the minimum cover shall be 2 ft. (0.6 m) in single run applications. Backfill for minimum cover situations shall consist of Class 1 (compacted) or Class 2 (minimum 90% SPD) material. Maximum fill heights depend on embedment material and compaction level.

Pipe Dimensions

	Nominal Diameter, in (mm)												
Pipe I.D. in (mm)	4 (100)	6 (150)	8 (200)	10 (250)	12 (300)	15 (375)	18 (450)	24 (600)	30 (750)	36 (900)	42 (1050)	48 (1200)	60 (1500)
Pipe O.D.* in (mm)	4.8 (122)	6.9 (175)	9.1 (231)	11.4 (290)	14.5 (368)	18 (457)	22 (558)	28 (711)	36 (914)	42 (1067)	48 (1219)	54 (1372)	67 (1702)

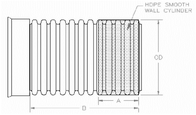
*Pipe O.D. values are provided for reference purposes only. values stated for 12 through 60-inch are ±1 inch.

ADS - N12 WT / HP STORM PIPE DETAILS

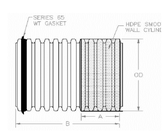
N.T.S.

DUAL WALL TO RCP MANHOLE ADAPTER FITTING WATER TIGHT CONNECTION

PART #	PIPE SIZE	A	B	OD
1222ANB	12 in (300 mm)	12.0 in (305 mm)	48.0 in (1219 mm)	14.8 in (375 mm)
1522ANB	15 in (375 mm)	14.5 in (368 mm)	48.6 in (1184 mm)	18.0 in (457 mm)
1822ANB	18 in (450 mm)	18.0 in (457 mm)	45.6 in (1122 mm)	21.8 in (554 mm)
2422ANB	24 in (600 mm)	24.0 in (610 mm)	47.3 in (1200 mm)	28.6 in (726 mm)
3022ANB	30 in (750 mm)	24.0 in (610 mm)	45.3 in (1151 mm)	35.9 in (912 mm)
3622ANB	36 in (900 mm)	24.0 in (610 mm)	46.3 in (1175 mm)	41.9 in (1063 mm)
4222ANB	42 in (1050 mm)	24.0 in (610 mm)	46.7 in (1186 mm)	48.5 in (1232 mm)
4922ANB	48 in (1200 mm)	24.0 in (610 mm)	47.3 in (1200 mm)	54.7 in (1389 mm)
6022ANB	60 in (1500 mm)	30.0 in (762 mm)	54.0 in (1372 mm)	67.5 in (1713 mm)



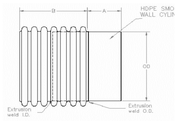
PART #	PIPE SIZE	A	B	OD
1222AN	12 in (300 mm)	12.0 in (305 mm)	48.0 in (1219 mm)	14.9 in (378 mm)
1522AN	15 in (375 mm)	14.5 in (368 mm)	48.6 in (1184 mm)	18.0 in (457 mm)
1822AN	18 in (450 mm)	18.0 in (457 mm)	45.6 in (1122 mm)	21.8 in (553 mm)
2422AN	24 in (600 mm)	24.0 in (610 mm)	47.3 in (1200 mm)	28.6 in (726 mm)
3022AN	30 in (750 mm)	24.0 in (610 mm)	45.3 in (1151 mm)	35.9 in (911 mm)
3622AN	36 in (900 mm)	24.0 in (610 mm)	46.3 in (1175 mm)	41.9 in (1063 mm)
4222AN	42 in (1050 mm)	24.0 in (610 mm)	46.7 in (1186 mm)	48.5 in (1232 mm)
4822AN	48 in (1200 mm)	24.0 in (610 mm)	47.3 in (1200 mm)	54.7 in (1389 mm)
6022AN	60 in (1500 mm)	30.0 in (762 mm)	54.0 in (1372 mm)	67.5 in (1713 mm)



NOTE:
REQUIRES SERIES 65 GASKET (INCLUDES IN FIELD TO MANDREL WT CONNECTION

DUAL WALL ADAPTER FITTING

PART #	PIPE SIZE	A	B	OD
1221AN	12 in (300 mm)	6.0 in (152 mm)	11.0 in (292 mm)	12.1 in (306 mm)
1521AN	15 in (375 mm)	6.0 in (152 mm)	13.0 in (330 mm)	15.0 in (381 mm)
1821AN	18 in (450 mm)	6.0 in (152 mm)	13.4 in (340 mm)	18.0 in (457 mm)
2421AN	24 in (600 mm)	8.0 in (203 mm)	15.5 in (400 mm)	24.0 in (610 mm)
3021AN	30 in (750 mm)	10.0 in (254 mm)	20.8 in (533 mm)	30.0 in (762 mm)
3621AN	36 in (900 mm)	10.0 in (254 mm)	25.7 in (653 mm)	36.0 in (914 mm)
4221AN	42 in (1050 mm)	10.0 in (254 mm)	28.0 in (600 mm)	41.3 in (1049 mm)
4821AN	48 in (1200 mm)	10.0 in (254 mm)	28.3 in (719 mm)	47.6 in (1209 mm)
6021AN	60 in (1500 mm)	10.0 in (254 mm)	30.0 in (762 mm)	59.5 in (1511 mm)

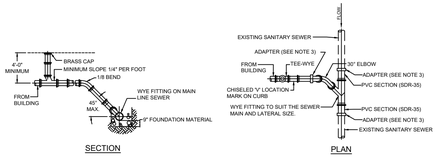


ADS - N12 PIPE ADAPTER FITTING DETAILS

N.T.S.

TYPICAL SANITARY SEWER CONNECTION DETAIL

N.T.S.

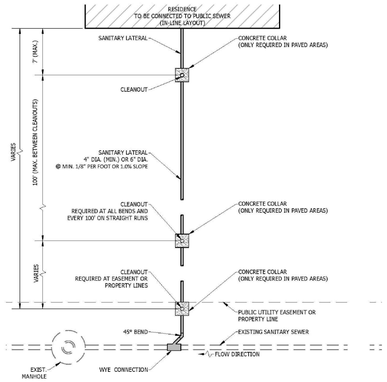


NOTES:

1. POINT REPAIRS ON LATERAL CONNECTION TO MAIN LINE SEWER BE COMPLETED AS SHOWN.
2. SEWER MAIN REPLACEMENT TO BE COMPLETED AS PER THE DETAILS IN THIS SECTION.
3. FERNCO ADAPTER, GRAINGER CO, INC. (LAKE FOREST, IL), MSC INDUSTRIAL SUPPLY CO (MELVILLE, NY), HYMAX COUPLING, OR APPROVED EQUAL.
4. MINIMUM LATERAL SIZE FOR RESIDENTIAL HOUSE CONNECTION SHALL BE 4 INCHES IN DIAMETER. MINIMUM LATERAL SIZE FOR COMMERCIAL / MULTI-RESIDENTIAL UNIT BUILDING CONNECTION SHALL BE 6 INCHES IN DIAMETER.
5. MAXIMUM SPACING OF LATERAL CLEANOUT SHALL BE 100 FEET.
6. MINIMUM FLOW VELOCITY IN BUILDING LATERAL SHALL BE 2.5 FT / SECOND.
7. LATERAL CONNECTION SHALL BE LOCATED WITHIN THE PUBLIC / STREET R.O.W. AND APPROXIMATELY 2 FEET FROM THE R.O.W. LINE. EXACT LOCATION OF THE CLEANOUT SHALL BE FIELD DETERMINED AS APPROVED BY THE MUNICIPAL SEWER DEPARTMENT. BUILDING LATERAL SIZE AND BUILDING LATERAL CLEANOUT LOCATION SHALL BE IN COMPLIANCE WITH THE STATE PLUMBING CODE.

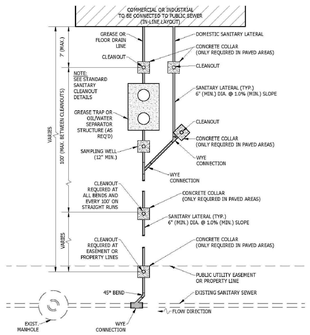
LATERAL SANITARY SEWER CONNECTION LAYOUT (RESIDENTIAL)

N.T.S.



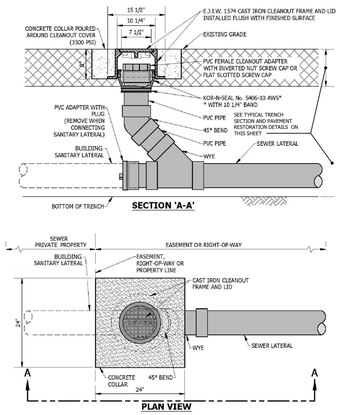
LATERAL SANITARY SEWER CONNECTION LAYOUT (RESIDENTIAL)

N.T.S.



LATERAL SANITARY SEWER CONNECTION LAYOUT (COMMERCIAL)

N.T.S.



STANDARD SANITARY CLEANOUT IN PAVED AREAS

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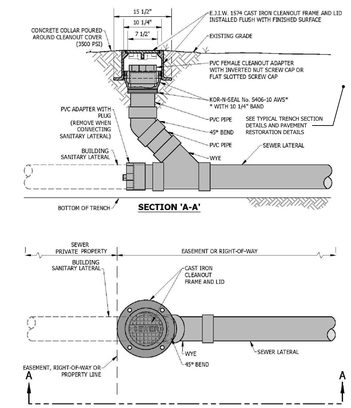
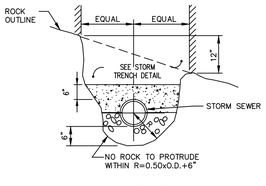


STANDARD SANITARY CLEANOUT IN UNPAVED AREAS

N.T.S.

SANITARY SEWER TRENCH DETAIL

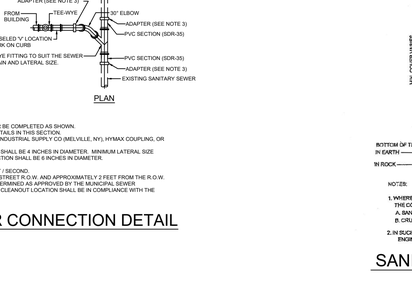
N.T.S.



STORM SEWER TRENCH

FOUNDATION MATERIAL ON ROCK

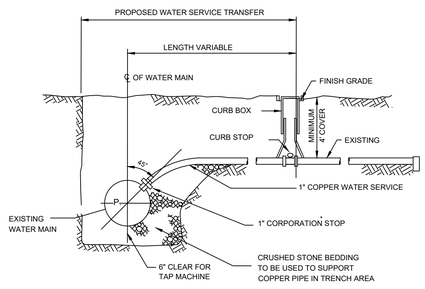
N.T.S.



NOTE:
ANY CUTS WITHIN 2'-0" OF A CURBLINE WILL REQUIRE RESTORATION TO CURBLINE.

PAVEMENT RESTORATION DETAIL

N.T.S.



NOTES:

1. WHERE POSSIBLE, CONTRACTOR SHALL CONNECT EXISTING SERVICE INTO THE CURB STOP. WHERE NOT POSSIBLE THE CONTRACTOR SHALL CONNECT AFTER THE CURB STOP WITH A UNION ON COUPLING PENDING ON THE SITE CONDITION.
2. CURB STOP AND CORPORATION STOP SHALL BE MANUFACTURED BY MUELLER OR APPROVAL EQUAL.
3. CURB STOP TO BE LOCATED AT THE PROPERTY LINE.
4. NO SERVICE CONNECTION WORK WILL BE PERFORMED INSIDE HOME OWNER'S PROPERTY.

NEW OR TRANSFERRED WATER SERVICE CONNECTION

N.T.S.

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N.Y. PROFESSIONAL ENGINEER LICENSE No. 071536

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N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

REV.	DATE	DESCRIPTION

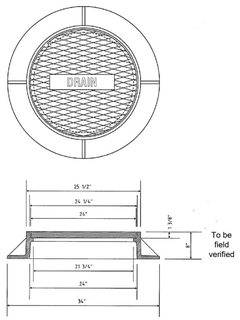
project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

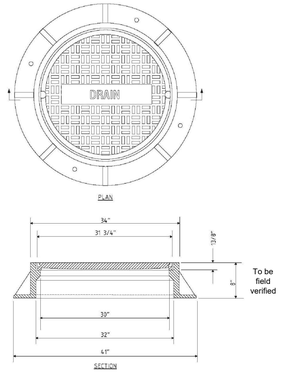
CONSTRUCTION DETAILS

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	12

Heavy Duty 24"
Manhole Frame & Bolted Cover



Heavy Duty 30"
Manhole Frame & Bolted Cover

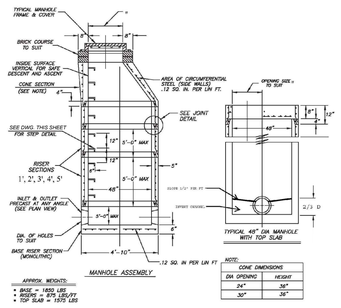


NOTES:
1. MATERIAL - GRAY CAST IRON ASM A48-83, CLASS 35B.
2. AASHTO HS25 HIGHWAY LOADING.
3. BEARING SURFACE AT SEAT OF FRAME AND COVER SHALL BE MACHINED FOR UNIFORM FIT.
4. CASTINGS SHALL BE SUPPLIED WITHOUT SURFACE COATING.
5. CASTINGS SHALL BE MADE IN U.S.A.
6. PATTERN NO. 1007D BY CAMPBELL FOUNDRY COMPANY, OR APPROVED EQUAL.
7. COVERS TO BE CAST WITH 2" IDENTIFYING LETTERS "DRAIN" EMBOSSED AGAINST A RECESSED BACKGROUND.

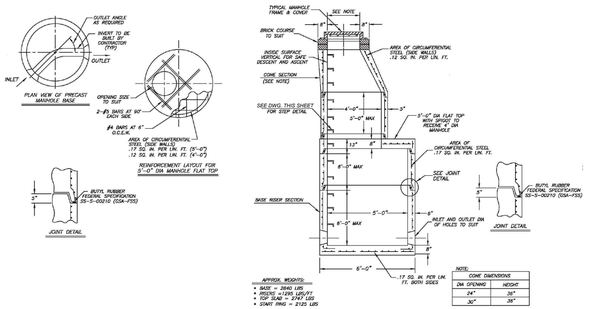
NOTES:
1. MATERIAL: GRAY CAST IRON, ASTM A-48-83, CLASS 35B.
2. AASHTO HS20-44 HIGHWAY LOADING.
3. BEARING SURFACE AT SEAT OF COVER AND FRAME SHALL BE MACHINED FOR UNIFORM FIT.
4. COVER SHALL HAVE TWO NON-PENETRATING PICK HOLES.
5. CASTINGS SHALL BE SUPPLIED WITHOUT SURFACE COATING.
6. CASTING SHALL BE MADE IN U.S.A.
7. PATTERN NO. 1012B BY CAMPBELL FOUNDRY COMPANY, OR APPROVED EQUAL.
8. COVERS TO BE CAST WITH 2" IDENTIFYING LETTERS "DRAIN" EMBOSSED AGAINST A RECESSED BACKGROUND.

MANHOLE FRAME AND COVER DETAILS
NOT TO SCALE

Typical 4'-0" Diameter Concrete Manhole
with Standard Footing

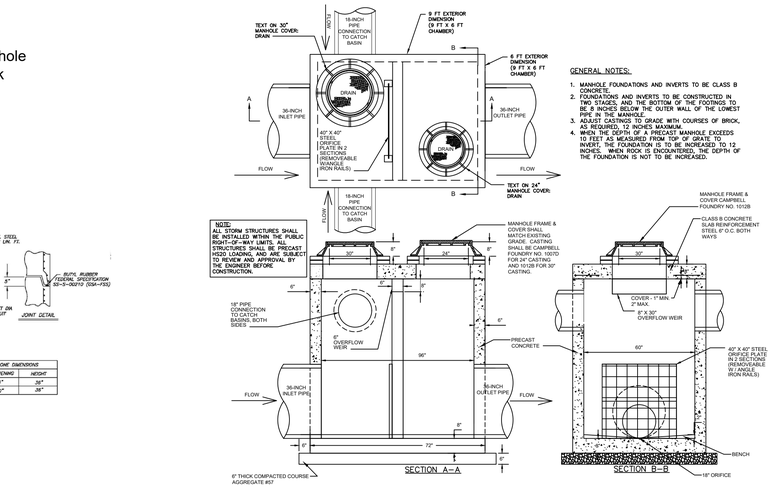


Typical 5'-0" Diameter Concrete Manhole
with 4'-0" Diameter Manhole Stack



NOTES:
1. CONCRETE TO TEST 4000 PSI @ 28 DAYS IN CONFORMANCE WITH ASTM C-478 DESIGN FOR H20 LOADING.
2. MANHOLES BY PRECAST CONCRETE SALES CO. OR APPROVED EQUAL.
3. ALL CASTINGS SHALL BE H20 LOAD RATED.

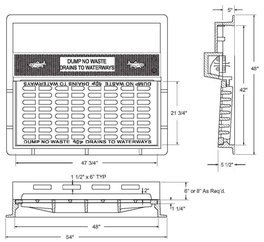
MANHOLE DETAILS
NOT TO SCALE



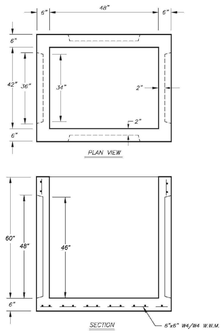
GENERAL NOTES:
1. MANHOLE FOUNDATIONS AND INVERTS TO BE CLASS B CONCRETE.
2. FOUNDATIONS AND INVERTS TO BE CONSTRUCTED IN TWO STAGES, AND THE BOTTOM OF THE FOOTINGS TO BE 8 INCHES BELOW THE OUTER WALL OF THE LOWEST PIPE ENTERING THE MANHOLE.
3. ADJUST CATCH BASIN TO GRADE WITH COURSES OF BRICK, AS REQUIRED, 12 INCHES MAXIMUM.
4. WHEN THE DEPTH OF A PRECAST MANHOLE EXCEEDS 10 FEET AS MEASURED FROM TOP OF GRATE TO INVERT, THE FOUNDATION IS TO BE INCREASED TO 12 INCHES. WHEN ROCK IS ENCOUNTERED, THE DEPTH OF THE FOUNDATION IS NOT TO BE INCREASED.

FLOW CONTROL CHAMBER DETAIL
N.T.S.

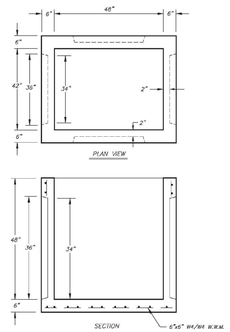
Curb Inlet with Bicycle Safe Grate and
Type 'N - Eco Curb Piece'



42" X 48" X 60" Deep Knockout Catch Basin



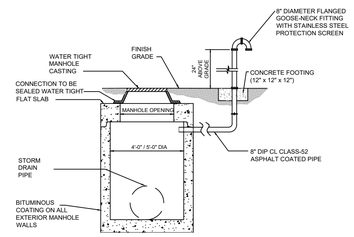
42" X 48" X 48" Deep Knockout Catch Basin



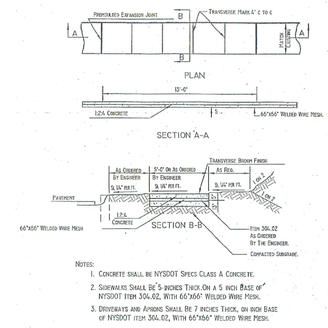
NOTES:
1. MATERIAL - GRAY CAST IRON ASM A48-83, CLASS 35B.
2. AASHTO HS20-44 HIGHWAY LOADING.
3. CASTINGS SHALL BE SUPPLIED WITHOUT SURFACE COATING.
4. CASTINGS SHALL BE MADE IN U.S.A.
5. PATTERN NO. 2618 BY CAMPBELL FOUNDRY COMPANY, OR APPROVED EQUAL.

NOTES:
1. STANDARD CATCH BASINS SHOULD BE 42" X 48" X 60" DEEP (TYP.). A SHALLOW CATCH BASIN (42"X48"X48" DEEP) MAY BE SUBSTITUTED TO ACCOMMODATE FIELD CONDITIONS. THE CONTRACTOR SHALL FIELD VERIFY THE DEPTH OF ALL UTILITY CROSSINGS AND CONFIRM THE REQUIRED DEPTH OF CATCH BASINS AND OUTLET PIPES. DEPENDING ON THE FIELD INFORMATION OBTAINED, THE ENGINEER MAY REQUIRE INSTALLATION OF A DEEPER CATCH BASIN. AS SUCH, THE CONTRACTOR SHALL SECURE THE ENGINEER'S APPROVAL BEFORE PLACING THE ORDERS FOR THE DRAINAGE STRUCTURES.
2. CATCH BASIN SUMP INVERT SHALL BE MINIMUM 18 INCHES BELOW THE INVERT OF THE OUTLET PIPE.
3. CATCH BASINS SHALL BE H20 LOADING.
4. MATERIAL - CONCRETE: 4,000 PSO @ 28 DAYS.
5. REINFORCING: AS PER ASTM A-185 - 6" X 6" W4/W4 W.W.M.
6. APPROX. WEIGHT: 5,100 LBS.
7. KNOCKOUT CATCH BASINS BY PRECAST CONCRETE SALES CO. OR APPROVED EQUAL

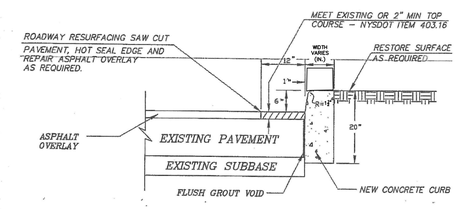
CATCH BASIN DETAILS
NOT TO SCALE



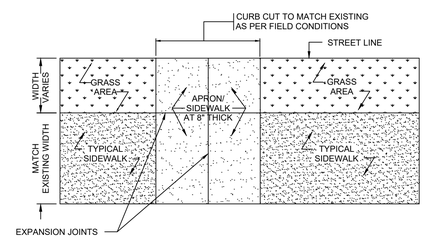
MANHOLE AIR RELEASE VENT DETAIL
NOT TO SCALE



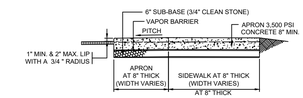
CONCRETE SIDEWALK DETAIL



CURB DETAIL

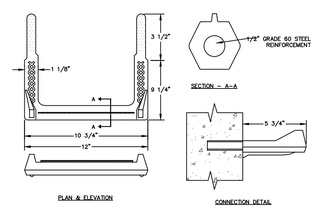


PLAN VIEW



SECTION VIEW

DRIVEWAY APRON DETAIL



POLYPROPYLENE LADDER RUNG-STORM MH/INLETS
N.T.S.

CONCRETE SIDEWALK, CURB AND DRIVEWAY APRON DETAILS
N.T.S.

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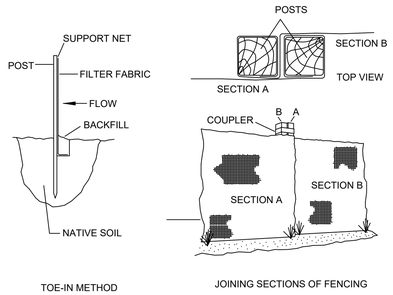


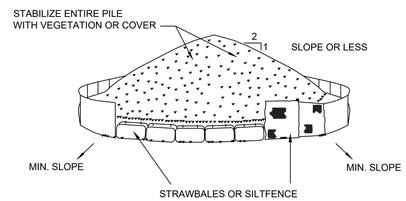
TOE-IN METHOD

JOINING SECTIONS OF FENCING

INSTALLATION NOTES

1. EXCAVATE A 6 INCH x 6 INCH TRENCH ALONG THE LOWER PERIMETER OF THE SITE.
2. UNROLL A SECTION AT A TIME AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM DIRECTION OF FLOW).
3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS APPROXIMATELY 2 INCHES FROM THE TRENCH BOTTOM.
4. LAY THE TOE-IN FLAP OF FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH, BACKFILL THE TRENCH AND TAMP THE SOIL. STEEPER SLOPES REQUIRE AN INTERCEPT TRENCH.
5. JOIN SECTIONS AS SHOWN ABOVE.
6. CONTRACTOR TO INSTALL SILT FENCE PER SITE CONDITIONS AND AS DIRECTED BY THE OWNER.

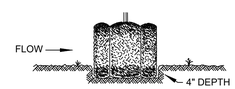
SILT FENCE DETAIL



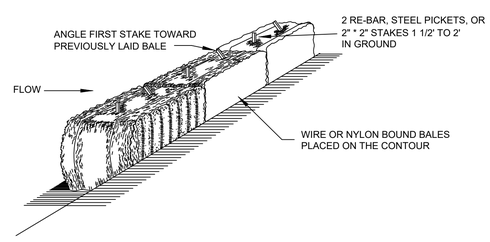
INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
4. SEE DETAILS FOR INSTALLATION OF SILTFENCE / STRAWBALE.

SOIL STOCKPILE DETAIL



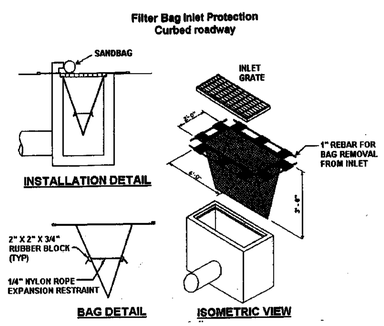
EMBEDDING DETAIL



INSTALLATION NOTES

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BAR DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULLNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

STRAWBALE SEDIMENT BARRIERS DETAIL



CONTRACTOR TO PROVIDE AND INSTALL
ENPAC STORM SENTINEL CATCH BASIN INSERT
AS MANUFACTURED BY ENPAC CORP. OR APPROVED EQUAL.
CUSTOMER SERVICE: 1-800-9ENPAC9

NOTE:
1. CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN CLEAN BAGS
2. BAGS ARE NOT TO BE USED ON MAJOR ROADS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS

GENERAL NOTES

1. ONLY DETAILS NOTES RELEVANT TO THE SPECIFIC PUBLIC WATER SUPPLY IMPROVEMENTS SHOWN ON THE ATTACHED PLANS ARE APPLICABLE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL SEDIMENT AND EROSION CONTROL PRACTICES. THE SEDIMENT AND EROSION CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. TIMELY MAINTENANCE OF SEDIMENT CONTROL STRUCTURES IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL STRUCTURES SHALL BE MAINTAINED IN GOOD WORKING ORDER AT ALL TIMES. THE SEDIMENT LEVEL IN ALL SEDIMENT TRAPS SHALL BE CLOSELY MONITORED AND SEDIMENT REMOVED PROMPTLY WHEN MAXIMUM LEVELS ARE REACHED OR AS ORDERED BY THE ENGINEER. ALL SEDIMENT CONTROL STRUCTURES SHALL BE INSPECTED ON A REGULAR BASIS AND AFTER EACH HEAVY RAIN TO INSURE PROPER OPERATION AS DESIGNED. AN INSPECTION SCHEDULE SHALL BE SET FORTH PRIOR TO THE START OF CONSTRUCTION.
4. THE LOCATIONS AND INSTALLATION TIMES OF THE SEDIMENT CAPTURING STANDARDS SHALL BE AS ORDERED BY THE ENGINEER, AND IN ACCORDANCE WITH THE STANDARDS SET FORTH IN THIS MANUAL.
5. ALL TOPSOIL NOT TO BE USED FOR FINAL GRADING SHALL BE REMOVED FROM THE SITE IMMEDIATELY AND PLACED IN A STABILIZED STOCKPILE OR FILL AREA. ALL TOPSOIL REQUIRED FOR FINAL GRADING AND STORED ON SITE SHALL BE LINED, FERTILIZED, TEMPORARILY SEEDED AND MULCHED WITHIN 21 DAYS.
6. ALL DISTURBED AREAS WITHIN 500 FEET OF AN INHABITED DWELLING SHALL BE WETTED AS NECESSARY TO PROVIDE DUST CONTROL.
7. THE CONTRACTOR SHALL KEEP THE ROADWAYS WITHIN THE PROJECT CLEAR OF SOIL AND DEBRIS AND IS RESPONSIBLE FOR ANY STREET CLEANING NECESSARY DURING THE COURSE OF THE PROJECT.
8. SEDIMENT AND EROSION CONTROL STRUCTURES SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED BY PERMANENT MEASURES.
9. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH CURRENT EDITION OF "WESTCHESTER COUNTY BEST MANAGEMENT PRACTICES MANUAL FOR EROSION AND SEDIMENT CONTROL".

PERMANENT VEGETATIVE STABILIZATION STANDARDS

1. APPLY TOPSOIL TO A DEPTH OF 4".
2. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS./1000 S.F.
3. APPLY FERTILIZER (10-20-10) AT A RATE OF 14 LBS./1000 S.F.
4. APPLY SEED MIXTURE: PERENNIAL RYEGRASS AT 10 LBS./ACRE, KENTUCKY BLUEGRASS AT 25 LBS./ACRE RED FESCUE AT 15 LBS./ACRE, AND SPREADING FESCUE AT 15 LBS./ACRE OR APPROVED EQUAL.
5. MULCH WITH UNROTTED SALT HAY OR SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. APPLY AT A RATE OF 90 LBS./1000 S.F. OR LATEST STATE STANDARDS.

TEMPORARY VEGETATIVE STABILIZATION STANDARDS

1. APPLY GROUND LIMESTONE AT A RATE OF 90 LBS./1000 S.F.
2. APPLY FERTILIZER (10-20-10) AT A RATE OF 14 LBS./1000 S.F. AND WORK INTO SOIL 4" DEEP.
3. APPPLY SEED MIXTURE: PERENNIAL RYE GRASS AT 40 LBS./ACRE AND ANNUAL RYEGRASS AT 40 LBS./ACRE OR APPROVED EQUAL.
4. MULCH WITH UNROTTED SALT HAY OR SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. APPLY AT A RATE OF 90 LBS./1000 S.F. AND SECURE BY APPROVED METHODS (I.E. PEG AND TIME, MULCH NETTING OR LIQUID MULCH BINDER).
5. PLANT SEED BETWEEN MARCH 1 AND MAY 15 OR BETWEEN AUGUST 15 AND OCTIBER 1, IF POSSIBLE.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR EQUIVALENT AND BOUND IN ACCORDANCE WITH THE WESTCHESTER COUNTY, NEW YORK BEST MANAGEMENT PRACTICES (i.e. PEG AND TWINE, MULCH NETTING, OR LIQUID MULCH BINDER).
3. IMMEDIATELY FOLLOWING THE ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF 2 TONS PER ACRE, ACCORDING TO THE STATE STANDARDS.
4. STABILIZATION SPECIFICATIONS: (SEE TEMPORARY AND PERMANENT VEGETATIVE STABILIZATION STANDARDS ELSEWHERE ON THIS SHEET). ALL PLANTING SHALL BE DONE BETWEEN MARCH 1 AND MAY 15 OR AUGUST 15 AND OCTOBER 1.
5. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORMWATER RUN-OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
6. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.
7. A CRUSHED STONE, VEHICLE WHEEL CLEANING BLANKET WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS ROAD INTERSECTS ANY PAVED ROADWAY. SAID BLANKET WILL BE COMPOSED OF 2 1/2" CRUSHED STONE, 6" THICK, AND SHOULD BE UNDERLAIN WITH A SUITABLE SYNTHETIC SEDIMENT FILTER FABRIC AND MAINTAINED.
8. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT EXCEED 3:1 UNLESS OTHERWISE APPROVED BY THE DISTRICT.
9. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
10. ALL CATCH BASIN INLETS WILL BE PROTECTED WITH FILTER BAG AS PER SITE CONDITIONS AND AS DIRECTED BY THE OWNER.
11. ALL DEWATERING OPERATIONS MUST DIRECTLY DISCHARGE INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC. SEE DETAILS.
12. ALL TREES TO REMAIN AFTER CONSTRUCTION ARE TO BE PROTECTED WITH TREE PROTECTION DEVICES OR SEDIMENT BARRIERS. SEE DETAILS.
13. DUST SHALL BE CONTROLLED BY SPRINKLING SITE WITH WATER UNTIL SURFACE IS WET.

WESTCHESTER COUNTY DEPARTMENT OF HEALTH NOTE:

ONLY DETAILS RELEVANT TO THE SPECIFIC PUBLIC WATER SUPPLY IMPROVEMENTS SHOWN ON THE PLANS ARE APPLICABLE.

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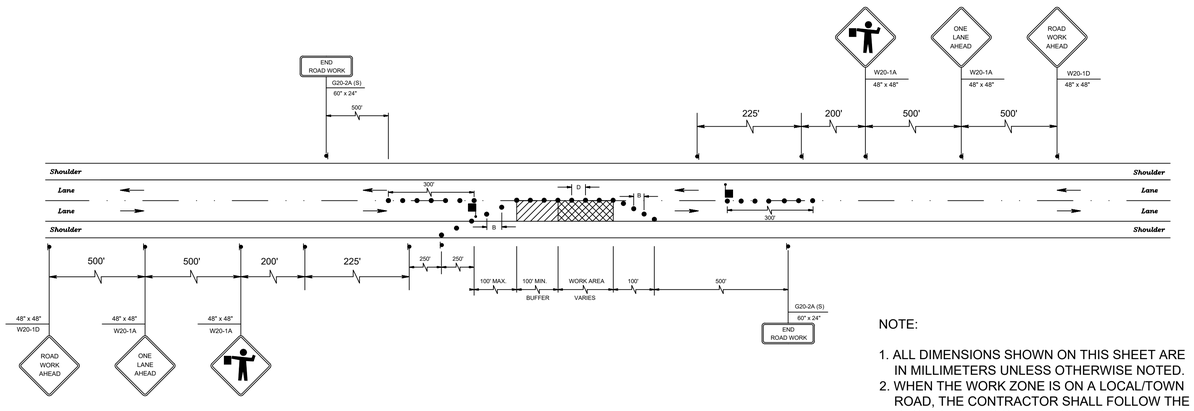
SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	14

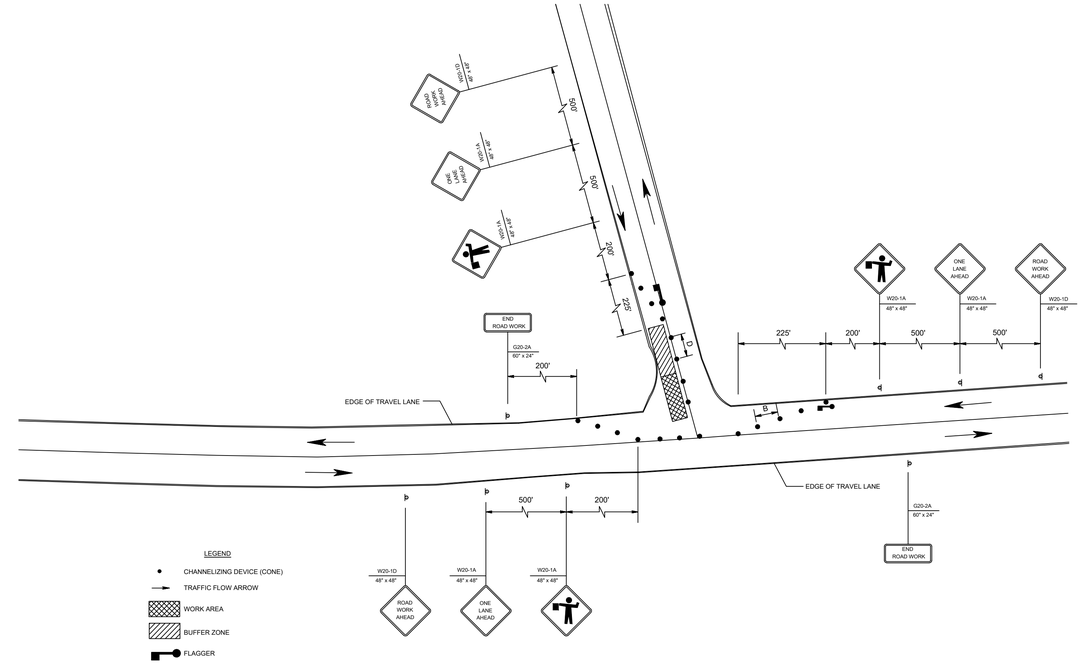


NOTE:

1. ALL DIMENSIONS SHOWN ON THIS SHEET ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. WHEN THE WORK ZONE IS ON A LOCAL/TOWN ROAD, THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS OF THE TOWN OF MOUNT PLEASANT.

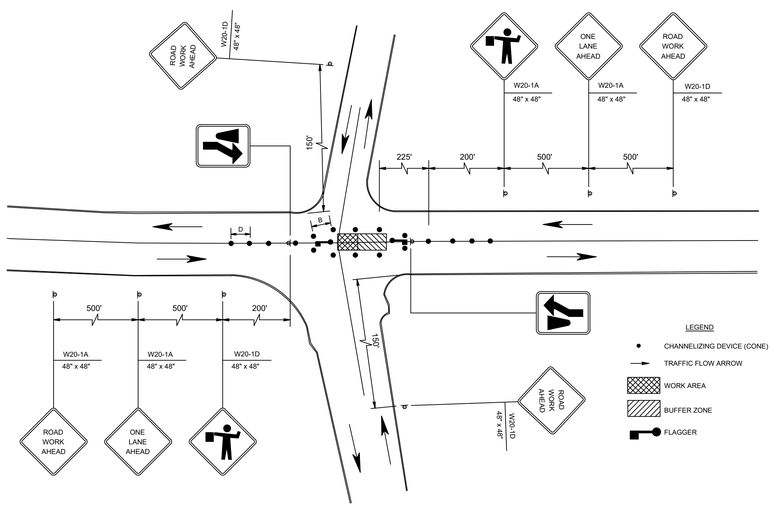
TRAFFIC CONTROL PLAN WORK LANE CLOSURE OF LOCAL ROAD

N.T.S.



TRAFFIC CONTROL PLAN WORK AT INTERSECTION OF LOCAL ROAD

N.T.S.



TRAFFIC CONTROL PLAN WORK IN CENTER OF LOCAL ROAD

N.T.S.

RECOMMENDED TAPER LENGTH AND SPACING FOR CHANNELIZING TAPERS						RECOMMENDED SPACING ALONG TANGENTS
REGULATORY APPROACH SPEED OF TRAFFIC IN MILES/HOUR	MINIMUM TAPER RATIO IN LENGTH PER FOOT OF WIDTH	MINIMUM TAPER LENGTH L-FOR LANE WIDTHS 10FT	11 FT	12 FT	MAXIMUM DEVICE (B) SPACING ALONG TAPERS IN FEET	MAXIMUM DEVICE (D) SPACING ALONG TANGENTS IN FEET
25	10.5:1	105	115	125	25	50
30	15.0:1	150	165	180	30	60
35	20.5:1	205	225	245	35	70
40	27.0:1	270	295	320	40	80
45	45:1	450	495	540	45	90
50	50:1	500	550	600	50	100
55	55:1	550	605	660	55	110

NOTE:
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2. THE DETAILS SHOWN ARE BASED ON THE MUTCD AND STATE REQUIREMENTS. ANY SPECIFIC DETAIL WILL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE DEPARTMENT FOR COMPLIANCE.

WESTCHESTER COUNTY DEPARTMENT OF HEALTH NOTE:
ONLY DETAILS RELEVANT TO THE SPECIFIC PUBLIC WATER SUPPLY IMPROVEMENTS SHOWN ON THE PLANS ARE APPLICABLE.

"WARNING - IT IS VIOLATION OF THE NEW YORK STATE EDUCATION LAW, SECTION 7209.2. FOR ANY PERSON, UNLESS HE OR SHE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT IN ANY WAY. IF ALTERED, THE ALTERING PERSON SHALL COMPLY WITH THE REQUIREMENTS OF THE NEW YORK STATE LAW SECTION 7209.2"

ARSHAD JALIL, P.E., BCEE
N.Y. PROFESSIONAL ENGINEER LICENSE No. 071536

PCI PROFESSIONAL CONSULTING , LLC.
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1719 ROUTE 10 SUITE 225
PARSIPPANY, NEW JERSEY 07054
PH.: 973.683.0044
FAX.: 973.683.0077

N.Y. CERTIFICATE OF AUTHORIZATION #0002562 (LLC)

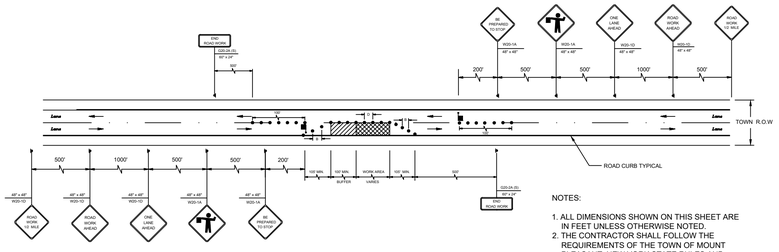
REV.	DATE	DESCRIPTION

project name: VILLAGE OF BRONXVILLE
WESTCHESTER COUNTY, NEW YORK

CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

TRAFFIC CONTROL PLANS - LOW VOLUME ROADS

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	15

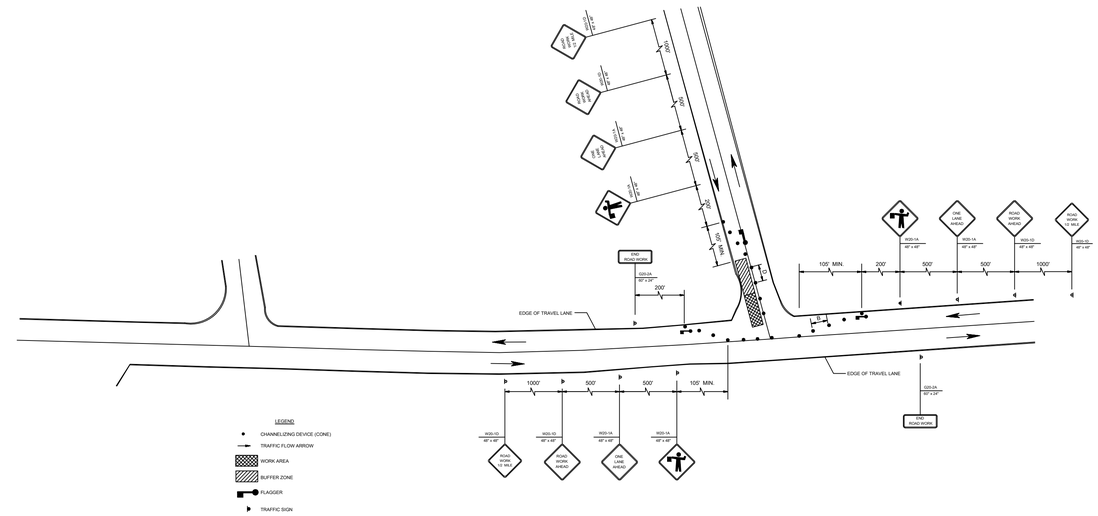


NOTES:

1. ALL DIMENSIONS SHOWN ON THIS SHEET ARE IN FEET UNLESS OTHERWISE NOTED.
2. THE CONTRACTOR SHALL FOLLOW THE REQUIREMENTS OF THE TOWN OF MOUNT PLEASANT, NEW YORK STATE RULES AND REGULATIONS AND MUTCD
3. SIGN LOCATION WILL BE FIELD ADJUSTED PER SITE DIMENSIONS AND POSTED SPEED LIMITS
4. $\frac{1}{2}$ MILE ROAD WORK SIGN TO BE USED ONLY ON COUNTY ROADS (HIGH VOLUME ROADS).

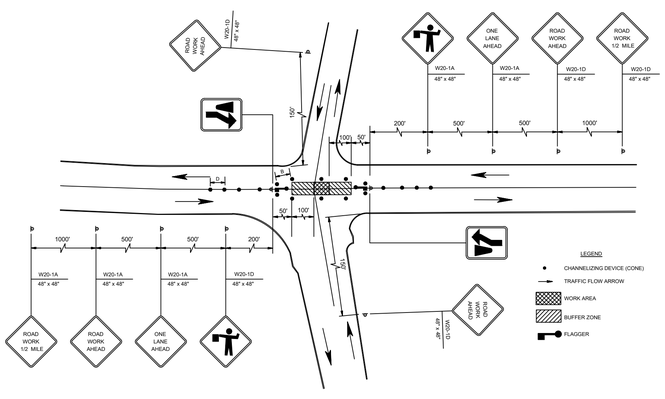
TRAFFIC CONTROL PLAN WORK LANE CLOSURE AT HIGH VOLUME COUNTY ROAD

N.T.S.



TRAFFIC CONTROL PLAN WORK AT INTERSECTION OF HIGH VOLUME COUNTY ROAD

N.T.S.



TRAFFIC CONTROL PLAN WORK IN CENTER OF HIGH VOLUME COUNTY ROAD

N.T.S.

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CONTRACT NO. VA 2022-06-1
HAMILTON AVENUE, SUSSEX AVENUE, AND HOMESDALE ROAD DRAINAGE IMPROVEMENTS

TRAFFIC CONTROL PLANS - HIGH VOLUME ROADS

drawn by	checked by	project no.	date	scale	drawing no.
AL/MM	GB/AJ	430G	10/17/23	AS SHOWN	16