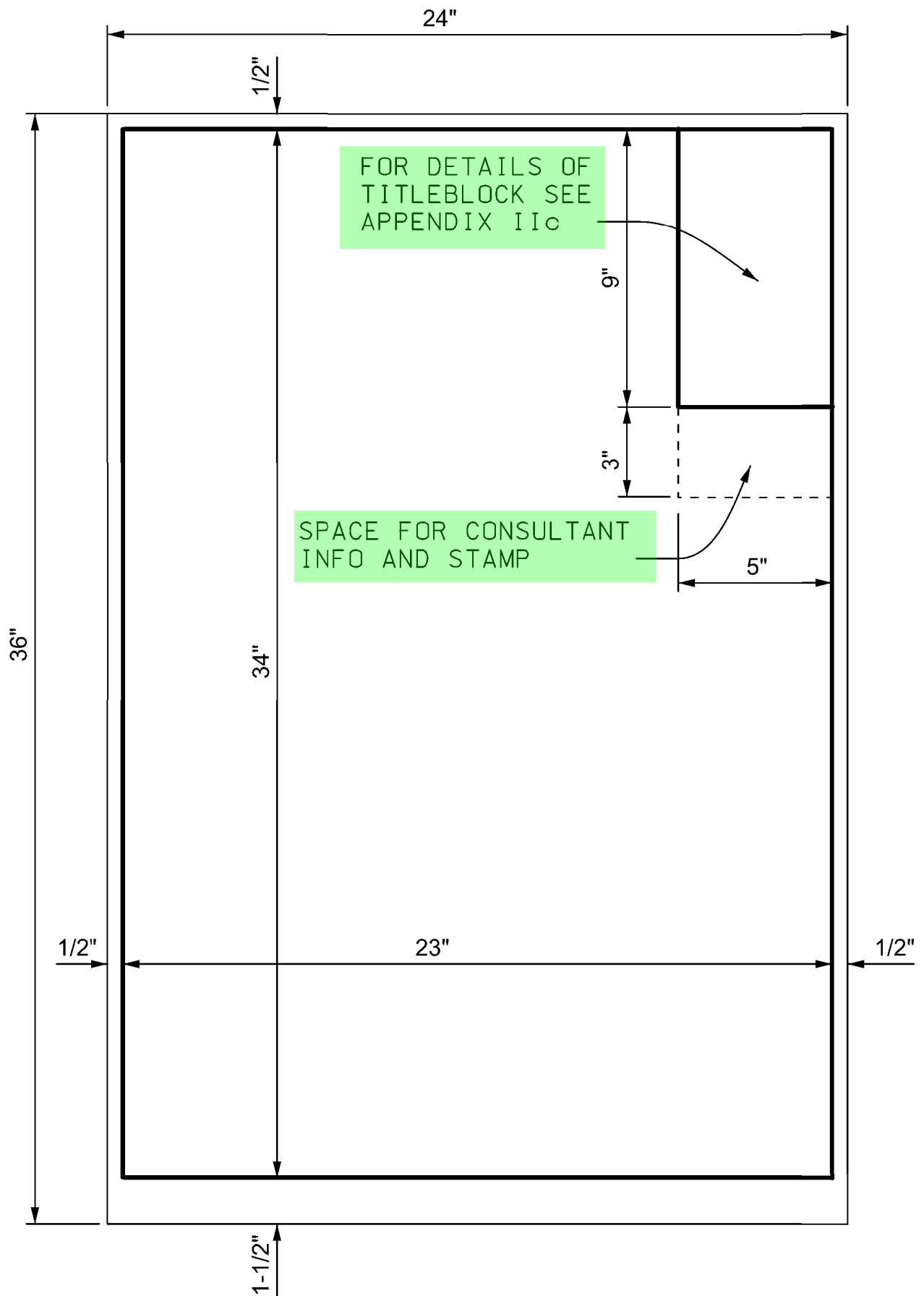


# DRAWING STANDARDS

## Appendix

# III

- [a](#) – Drawing Size and Borders (Water)
  - [b](#) – Drawing Size and Borders (Sewer)
  - [c](#) – Title Block (Water Drawing)
  - [d](#) – Title Block (Sewer Drawing)
  - [e](#) – Line Styles
  - [f](#) – Lettering
  - [g](#) – Arrow Symbols
  - [h](#) – Symbols for Water Main Fittings
  - [i](#) – Standard Notes for Water Sheets
  - [j](#) – Legend for Sewer Sheets
  - [k](#) – Manholes, Inlets and Appurtenances
  - [m](#) – Standard Notes for Sewer Sheets
  - [n](#) – Symbols for Green Appurtenances
-

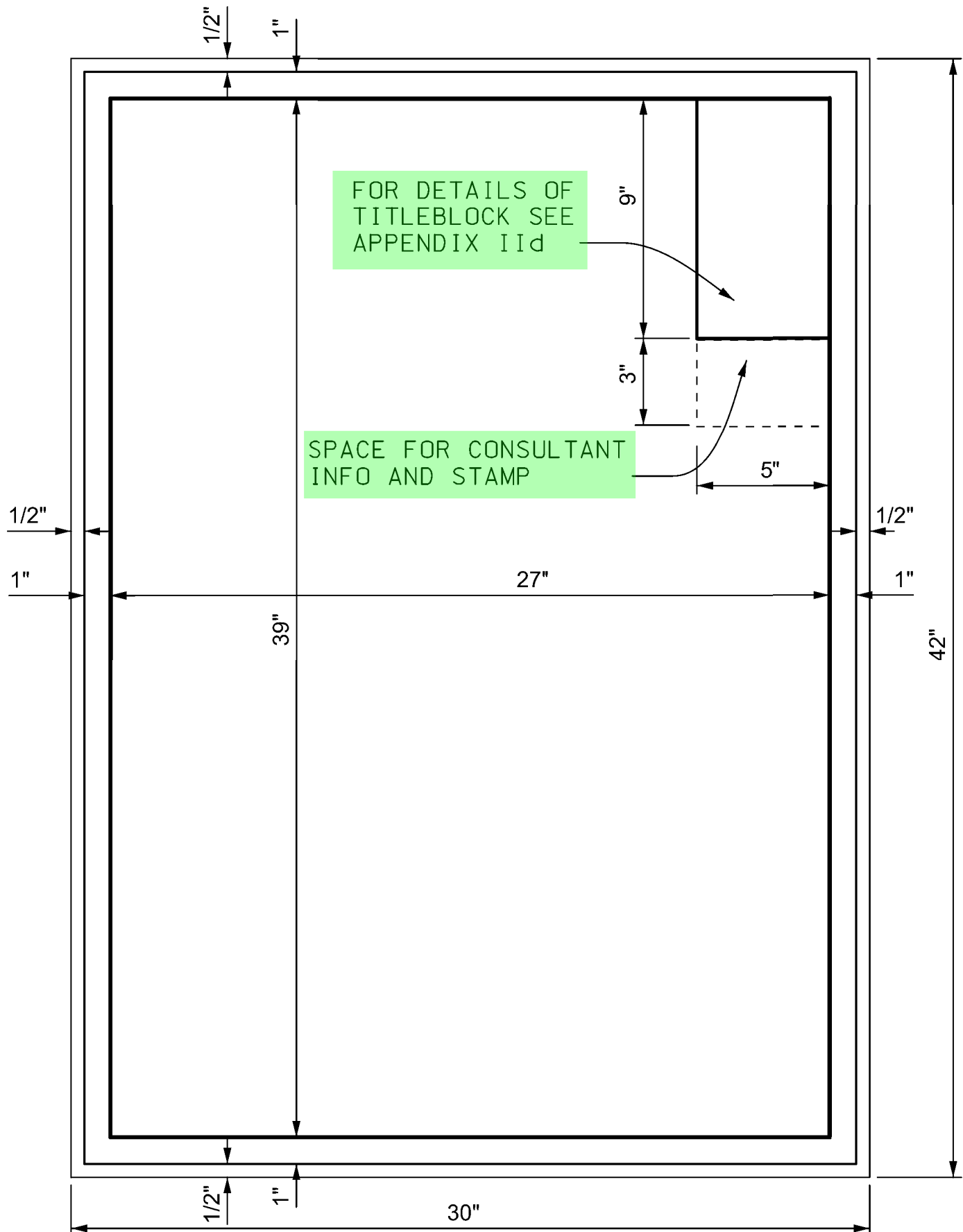


**APPENDIX IIa**  
**Border Size - Water** [Back to Appendix II](#)

CHECKED BY: FM

DATE: 01/15/2014

PAGE NO. 1 OF 1



**APPENDIX IIb**  
**Border Size - Sewer** [Back to Appendix II](#)

CHECKED BY: FM

DATE: 01/15/2014

PAGE NO. 1 OF 1

**NOTICE:**  $\frac{.1}{.4}$

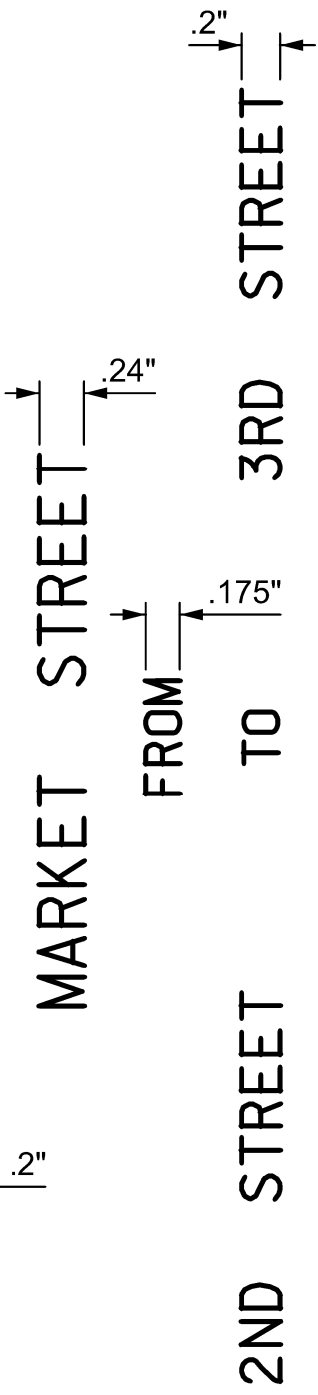
PURSUANT TO THE REQUIREMENTS OF PENNSYLVANIA ACT 121 OF 2008,  
THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776 OR 811,  
AT LEAST 3 DAYS PRIOR TO EXCAVATION.  $\frac{.1}{.1}$

HIGHWAY DISTRICT NO. 3 WARD NO. 5

SURVEY DISTRICT NO. 2 WATER PLATE NO. 28A

ONE CALL SERIAL NO. 12345678 GPIS NO. G0000-00000

**WATER MAIN RELAY PROJECT**



CITY OF PHILADELPHIA  
WATER DEPARTMENT  $\frac{.1}{.1}$

APPROVED  $\frac{.14}{.08}$  CHIEF, DESIGN BRANCH, ENGINEERING DIVISION  
(OR APPROPRIATE FIRM NAME)

APPROVED GENERAL MANAGER, PLANNING AND ENGINEERING

APPROVED LEAD SHEET ONLY WATER COMMISSIONER  $\frac{.24}{.08}$

SCALES:  
PLAN 1" = 20'  
AND AS NOTED  $\frac{.1}{.1}$

(TOTAL NUMBER OF SHEETS IN THE PROJECT)

WORK NO. S-40345-RD (5 SHEETS)

SHEET NO. W-1 OF 2 SHEETS  $\frac{.1}{.2}$

TOTAL NUMBER OF WATER SHEETS

DRAWN BY	DATE
PROJECT ENGR.	SUPERVISOR

NOTICE:  .1  
 .4

THE CONTRACTOR SHALL CONTACT THE PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776 OR 811, AT LEAST 3 DAYS PRIOR TO EXCAVATION.


PURSUANT TO THE REQUIREMENTS OF PENNSYLVANIA ACT 121 OF 2008,  
PURSUANT TO THE REQUIREMENTS OF PENNSYLVANIA ONE CALL SYSTEM AT 1-800-242-1776 OR 811,  
AT LEAST 3 DAYS PRIOR TO EXCAVATION.


HIGHWAY DISTRICT NO. 3 WARD NO. 5

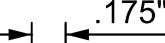
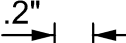
SURVEY DISTRICT NO. 2 DRAINAGE PLAT NO. 31 OUTFALL NO. D53

ONE CALL SERIAL NO. 12345678 GPIS NO. 60000-00000


**SEWER RECONSTRUCTION PROJECT**


 .2

MARKET STREET  .24

FROM  .175 TO 3RD STREET  .2

2ND STREET

 .14

APPROVED  .08

CHIEF, DESIGN BRANCH, ENGINEERING DIVISION  
(OR APPROPRIATE FIRM NAME)

APPROVED




GENERAL MANAGER, PLANNING AND ENGINEERING

LEAD SHEET ONLY

APPROVED

WATER COMMISSIONER

CITY OF PHILADELPHIA  
WATER DEPARTMENT

SCALES:  
PLAN  1" = 20'  
PROFILE HORZ.  1" = 20'  
VERT.  1" = 5'

(TOTAL NUMBER OF SHEETS IN THE PROJECT)

WORK NO.  .24 S-40345-RD (5 SHEETS)

SHEET NO. S-1 OF 2 SHEETS  .2

NUMBER OF SEWER SHEETS

DRAWN BY	
PROJECT ENGR.	
SUPERVISOR	
DATE	

	Houseline	0.80mm
	Curbline	0.50mm
	Right of Way	0.50mm
	Confirmed Curb	0.25mm
	Physical Curb	0.25mm
	Edge of Paving	0.25mm
	Ex. Water Line	0.25mm
	Gas Line	0.25mm
	Ex. Sewer Line	0.25mm
	Verizon, PECO, SEPTA, Cable, Keystone, ATT, and Misc. Duct Lines	0.25mm
	Railroad	0.25mm
	Property Line	0.25mm
	Proposed Water Main	0.70mm
	Proposed Sewer	0.70mm
	Proposed Water Main (on Sewer Sheet)	0.70mm
	Proposed Sewer (on Water Sheet)	0.70mm
	Ex. Separate System	0.25mm
	Proposed Separate System	0.70mm
	Profile Grid	0.20mm
	Exist Sewer in Profile	0.50mm

Water, Sewer and Gas Lines (Existing and Proposed) 24" and Over are to be drawn Double-Line.

All Other utilities 42" and Over are to be drawn Double-Line



## APPENDIX IIe Line Styles

[Back to Appendix II](#)

Street Names - Upper Case, Arial font

DE STREET

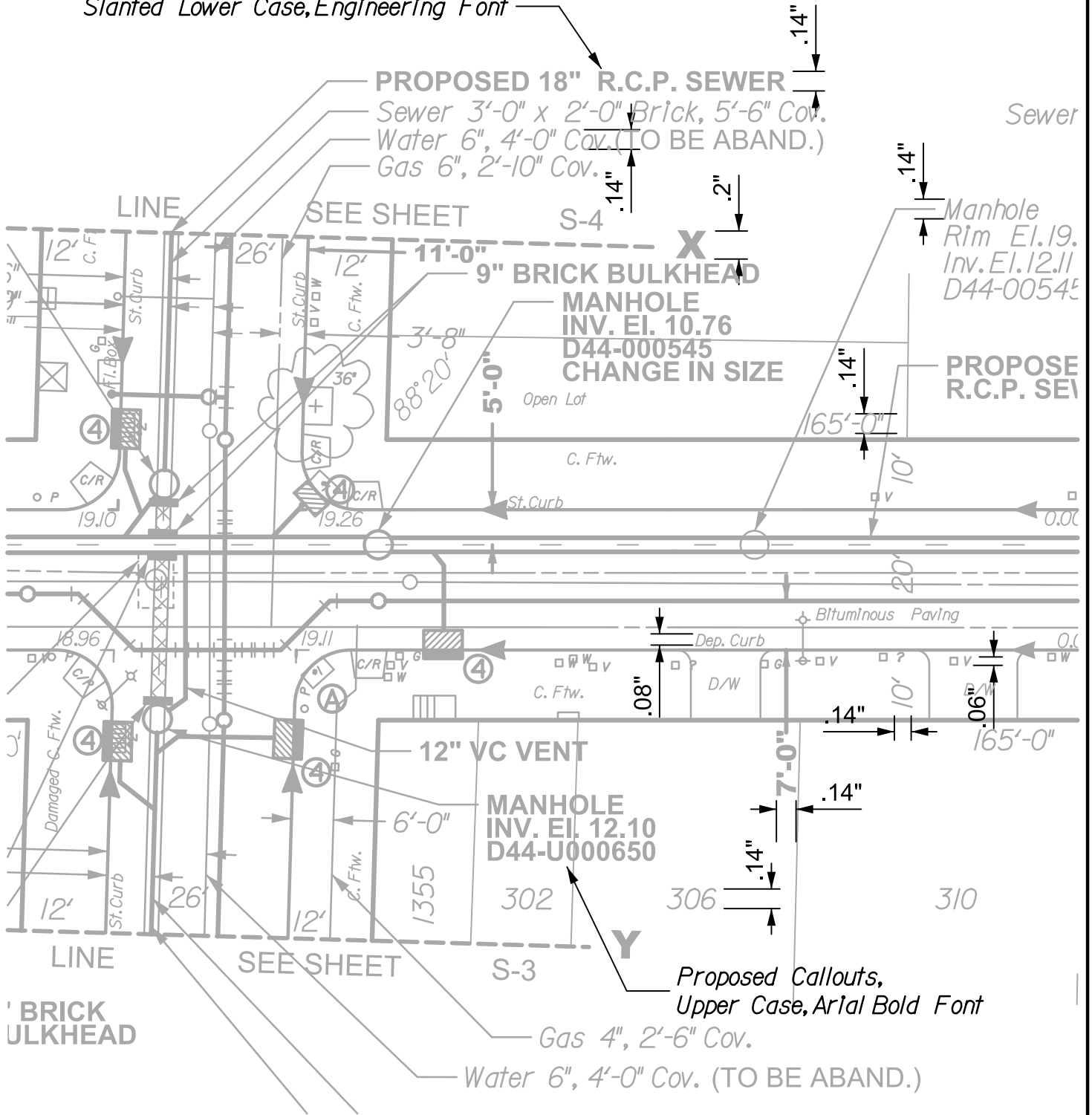
NO PARKING  
PARKING

Existing Callouts and Utility Labels  
Slanted Lower Case, Engineering Font

PROPOSED 18" R.C.P. SEWER

Sewer 3'-0" x 2'-0" Brick, 5'-6" Cov.  
Water 6", 4'-0" Cov. (TO BE ABAND.)  
Gas 6", 2'-10" Cov.

Sewer



BRICK BULKHEAD

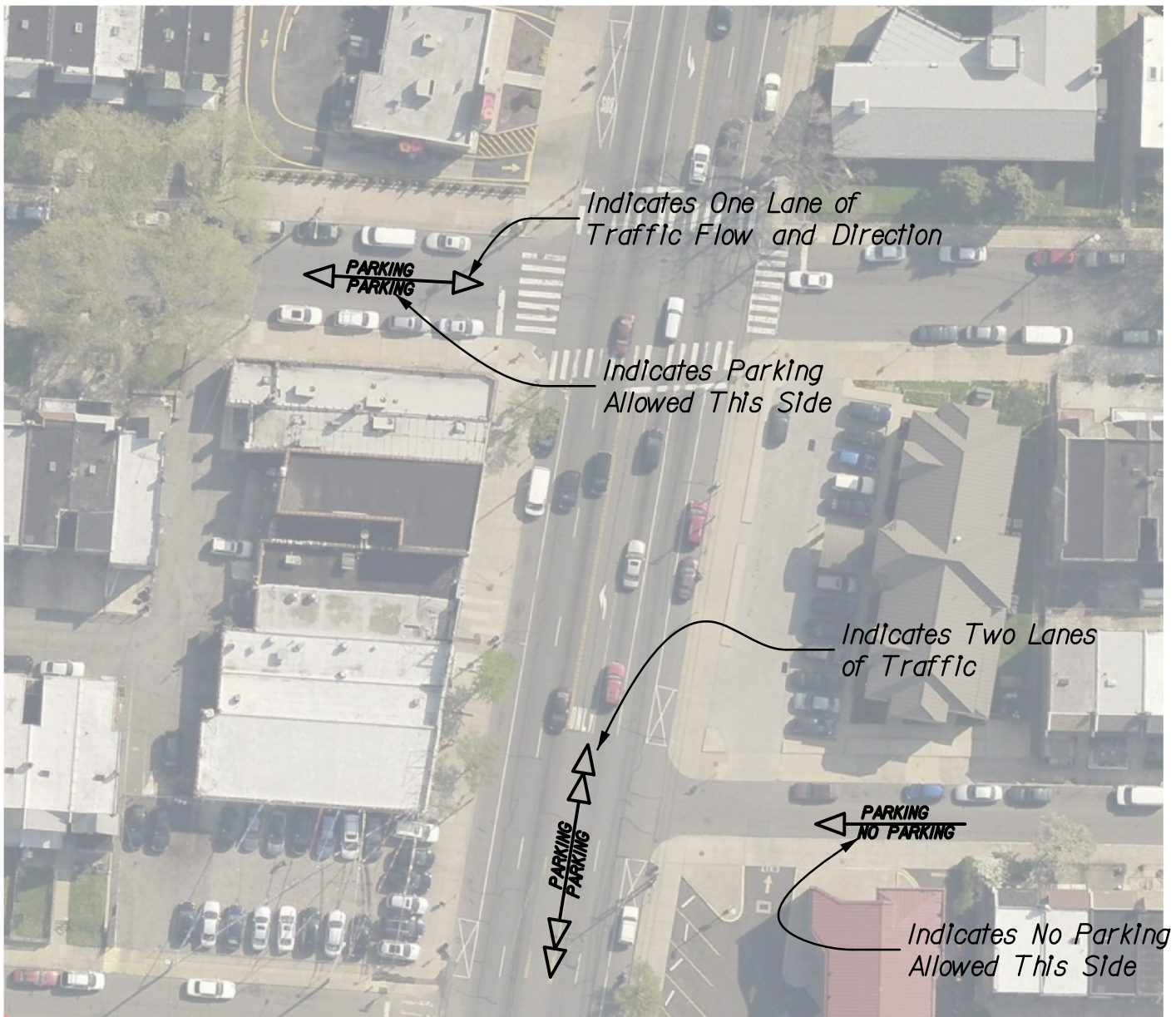
Proposed Callouts,  
Upper Case, Arial Bold Font

Gas 4", 2'-6" Cov.  
Water 6", 4'-0" Cov. (TO BE ABAND.)



# APPENDIX II Lettering

[Back to Appendix II](#)



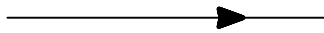
Indicates One Lane of Traffic Flow and Direction

Indicates Parking Allowed This Side

Indicates Two Lanes of Traffic

Indicates No Parking Allowed This Side

## TRAFFIC FLOW ARROWS



Curb Flow Arrow -  
Place on Curbs Lines  
to Indicate Stormwater Flow  
In Gutter

## CURB FLOW ARROW



## NORTH ARROW



# APPENDIX IIg Arrow Symbols

[Back to Appendix II](#)




















PROPOSED FITTINGS (AS THEY APPEAR ON THE WATER CONTRACT DRAWINGS)	PROPOSED FITTINGS (AS THEY APPEAR ON THE SEWER CONTRACT DRAWINGS)	EXISTING FITTINGS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
•	•	◦	HYDRANT
⊕	⊕	NA	HYDRANT ANCHOR TEE
○	○	○	VALVE
⊕	⊕	NA	CROSS
⊥	⊥	NA	TEE
⊣	⊣	NA	1/4 BEND( 90° )
⌒	⌒	NA	1/8 BEND( 45° )
⌒	⌒	NA	1/16 BEND( 22.5° )
⌒	⌒	NA	1/32 BEND( 11.25° )
⊕	⊕	NA	VERT. BENDS
◀	◀	◁	REDUCER
		NA	SLEEVE
⊞	⊞	⊞	CAP
⊥	⊥	⊥	PLUG
⌒	⌒	⌒	OFFSET



[Back to Appendix II](#)

## APPENDIX IIh

# Symbols for Water Main Fittings

PROPOSED FITTINGS (AS THEY APPEAR ON THE WATER CONTRACT DRAWINGS)	PROPOSED FITTINGS (AS THEY APPEAR ON THE SEWER CONTRACT DRAWINGS)	EXISTING FITTINGS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
			BLOW OFF
			AIR VALVE
NA	NA		HIGH PRESSURE FIRE HYDRANT
NA	NA		HIGH PRESSURE FIRE VALVE AND CHAMBER
			DISTRICT BOUNDRY VALVE
NA	NA		ELECTROLYSIS TEST STATION
		NA	MECHANICAL COUPLING
			DOUBLE LINE FITTING 24" AND OVER



**NOTES:**

- ① REMOVE FRAME & COVER – SEE SPEC’S.
- ② REMOVE FIRE HYDRANT – SEE SPEC’S.
- ③ REMOVE PIPE AND/OR FITTING & RECONNECT.
- ④ ROTATE FITTINGS AS REQUIRED.
- ⑤ REMOVE AND RETURN VALVE – SEE SPEC’S.

**GENERAL NOTES:**
































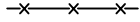
































- EXISTING WATER MAINS SHALL BE CUT & PLUGGED AS APPROVED BY THE CITY ENGINEER.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM 6-INCH CLEARANCE BETWEEN ALL UNDERGROUND STRUCTURES AND THE NEW WATER MAINS.
- BILLS OF MATERIAL AND PIPE TOTALS ARE FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND PAYMENT WILL BE MADE ONLY FOR THE ACTUAL AMOUNT OF PIPE AND APPURTENANCES INSTALLED.
- FIRE HYDRANTS SHALL NOT BE CONSTRUCTED OR RELOCATED UNTIL SUCH LOCATIONS HAVE BEEN APPROVED BY THE WATER DEPARTMENT CONSTRUCTION DIVISION IN THE FIELD.
- ALL DISTANCES SHOWN ARE IN DISTRICT STANDARD MEASUREMENT.














































**APPENDIX III**

**Standard Water Notes**

[Back to Appendix II](#)

# Legend Items

	Vent Box - Sewer		Gas Valve
	Water Curb Box		Door Sill
	Gas Curb Box		Unknown Utility Manhole
	Unknown Curb Box		Utility Manhole
	Pole		Grating
	Lamp Post		Cellar Door
	PECo Pole		Steps
	PECo Pole W/Light		Porch
	SEPTA Pole		Planter
	Traffic Light		Bus Shelter
	Traffic Sign		Curb Ramp
	Iron Pole		Tree/Trunk Size In "
	Bollard		Tree Stump/w Trunk In "
	Parking Meter		Hedge
	Parking Kiosk		Trash Receptacle
	Stand Pipe		Fence
	Clean Out		Bike Rack
	Down Spout		Domed Risser
	Mail Box		Concrete Curb
	Hand Hole		Granite Curb
CATV 	Cable Handhole		Slate Curb
	Survey Stone		Concrete Footway
Traffic Control 	Traffic Control Box(Above Ground)		Brick Footway
Verizon 	Verizon Junction Box(Above Ground)		Slate Footway
	Sewer Manhole		Depressed Curb
	Water Valve		Brick Gutter
	Fire Hydrant		Driveway
	Electrolysis Test Station		Stone Wall
	Open Mouth Grate Inlet		Brick Wall
	City Inlet (4 Denotes 4 FT. 6 Denotes 6 FT.)		Concrete Wall
	Old City Inlet (*1,*2,*3 or *4 Denotes Size)		Sewer Return Elevation
	Old Grate Inlet (*1,*2,*3 or *4 Denotes Size)		Sewer Return Location

PROPOSED ITEMS (AS THEY APPEAR ON THE SEWER CONTRACT DRAWINGS)	PROPOSED ITEMS (AS THEY APPEAR ON THE WATER CONTRACT DRAWINGS)	EXISTING ITEMS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
			MANHOLE
			WELLHOLE
			EXTERIOR DROP MANHOLE
			INTERIOR DROP MANHOLE
			SUMMIT MANHOLE
			TRANSITION MANHOLE
			CONCRETE COLLAR
		NA	9" BRICK BULKHEAD
			4FT. CITY INLET
			6FT. CITY INLET
			4 FT. OPEN MOUTH GRATE INLET
			6 FT. OPEN MOUTH GRATE INLET
			4 FT. HIGHWAY GRATE INLET
			6 FT. HIGHWAY GRATE INLET
NA	NA		OLD #1,2,3,4 GRATE INLETS
NA	NA		OLD #1,2,3,4 CITY INLETS
		NA	FLOWABLE FILL



**APPENDIX IIk** Back to Appendix II  
**Manholes, Inlets and Appurtenances**

NOTES:

(ONLY USE APPLICABLE NOTES)

ALL DISTANCES SHOWN ARE IN DISTRICT STANDARD MEASUREMENT. PAYMENT FOR ALL WORK WILL BE BASED UPON THAT STANDARD.

THE LOCATIONS AND ELEVATIONS OF THE EXISTING SEWERS ARE APPROXIMATE. THE ELEVATIONS OF THE EXISTING SEWER AT THE TERMINATING CONNECTION POINTS TO THE PROPOSED SEWER MUST BE FIELD CHECKED PRIOR TO CONSTRUCTING THE NEW SEWER.

THE THICKNESS OF THE ARCHES AND THE CHARACTER AND THE EXTENT OF THE CRADLES OF THE EXISTING SEWERS ARE UNKNOWN

SEAL OPEN ENDS OF SEWER WITH VITRIFIED PIPE STOPPERS AND OPEN ENDS OF STORMWATER CONDUITS WITH BRICK BULKHEADS.

REMOVE EXISTING PIPE STOPPERS AND BRICK BULKHEADS PRIOR TO CONNECTING TO EXISTING SEWERS OR STORMWATER CONDUITS.

(ASSESSIBLE PROJECTS ONLY)

REGISTERED PROPERTY OWNERS' NAMES AND ZONING CLASSIFICATIONS ARE CORRECT AS OF \_\_\_/\_\_\_/\_\_\_ THE DATE THE SEWER BASE PLAN WAS APPROVED.

- (A) DENOTES EXISTING INLET TO BE ABANDONED.
- (R) DENOTES EXISTING INLET TO BE RECONNECTED.
- (4) DENOTES 4 FT. CITY INLET.
- (6) DENOTES 6 FT. CITY INLET.
- ▨ (4) DENOTES 4 FT. OPEN MOUTH GRATE INLET.
- ▨ (6) DENOTES 6 FT. OPEN MOUTH GRATE INLET.
- ▨ (4) DENOTES 4 FT. HIGHWAY GRATE INLET.
- ▨ (6) DENOTES 6 FT. HIGHWAY GRATE INLET.



**APPENDIX II m**  
**Standard Sewer Notes**

[Back to Appendix II](#)

PROPOSED ITEMS (AS THEY APPEAR ON THE GSI CONTRACT DRAWINGS)	PROPOSED ITEMS (AS THEY APPEAR ON THE WATER AND SEWER CONTRACT DRAWINGS)	EXISTING ITEMS (AS THEY APPEAR ON THE WATER, SEWER AND GREEN CONTRACT DRAWINGS)	SYMBOL DESCRIPTION
			4FT. GREEN CITY INLET
			4 FT. GREEN HIGHWAY GRATE INLET
			STORMWATER TRENCH
			TREE PIT
I	I	NA	ANTI-SEEP COLLAR
● ∞	● ∞	○ ∞	CLEANOUT
⊙	⊙	⊙	DOMED RISER
⊙	⊙	⊙	OVERFLOW STRUCTURE
○	○	○	OBSERVATION WELL
————	————	————	GREEN SOLID PIPE
- - - - -	- - - - -	- - - - -	GREEN PERFORATED PIPE



[Back to Appendix II](#)

## APPENDIX II in GREEN STORMWATER INFRASTRUCTURE (GSI) SYMBOLS