

Attribute	GIS Domain Name	Permitted Values
Owner	dOwner	Rutgers University [Default] AT&T Camden Comcast Crown Castle East Brunswick Edison Elizabethtown Water Highland Park Milltown/East Brunswick New Brunswick New Jersey American Water Newark North Brunswick Piscataway PSE&G Robert Wood Johnson University Hospital Sunoco Pipeline Transco University Hospital Verizon
SourceDataQuality	dSourceDataQuality	Deficiency Discrepancy Mapping Grade Not Found Survey Grade [Default] Lesser SG Sketch Other Unknown
Status	dStatus	In Service [Default] Abandoned Inactive Removed

Shot Type	dShotType	Top of Pipe Pipe Invert Bottom Trench Trench after Backfill Grade Markout Paint
Shot Source	dShotSource	Survey-Grade Equipment Mapping-Grade Equipment Survey Level Hand Measurement

ANY ATTRIBUTE STARTING WITH "is" OR "has": isConfined isAboveGround isMetered isEncased isConcreteEncased isMonitored isPressurized isHighPressure isShutoff isDirectBuried isDoubleContained isInTunnel isStormwaterCompliant isLabeled isAreaDrain isPerforated isStormwater isDogHouse isEmergency isGrinder isMeterPit isGrounding hasTracer hasOffsetLid hasGratedCover hasECOCompliantSign hasHydroBreak	dYesNo	Yes No Unknown
Degree	dDegree	45 90

Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym
SystemType	dcgSystemType	COMP AIR HE NITRO	Compressed air Helium Nitrogen
SourceType	dcgSourceType	Compressor Tank	
PointType	dcgPointType	Bend Cap Connection Tee Vent	
TurnDirection	dcgTurnDirection	Ball Right Hand Closure	
MaterialType	dcgMaterialType	Carbon Steel Copper PVC Stainless Steel	Carbon Steel Copper Polyvinyl Chloride Stainless Steel
Diameter	dcgDiameter	0.5 0.75 1 1.25 1.5 2 2.5 3 4 5 6 7 8 10 12 14	

Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym		
PointType	dfPointType	Cap Connection Fill Pump Stub Up Transition Vault Vent			
FuelType	dfFuelType	C CNG D G LPG NG	Combination of Diesel and Gasoline Compressed Natural Gas Diesel Gasoline Propane Natural Gas		
TankCapacity	dfTankCapacity	250 500 1000 5000 6000 8000 10000 15000 20000 25000 40000 50000			
TankMaterial	dfTankMaterial	Concrete Fiberglass Steel			
TankType	dfTankType	AST UST	Aboveground Storage Tank Underground Storage Tank		

Diameter	dfDiameter	0.5			
		0.75			
		1			
		1.25			
		1.5			
		2			
		2.5			
		3			
		4			
		5			
		6			
		8			
		10			
		12			
		16			
		20			
		36			
MaterialType	dfMaterialType	Fiberglass Coated Steel Galvanized Steel Plastic Steel			

Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym	
FittingType	dhcFittingType	Bend Cap		
Diameter	dhcDiameter	0.5 0.75 1 1.25 1.5 2 2.5 3 4 5 6 8 10 12 14 16 18 20 26 30 36		
PointType	dhcPointType	Anchor Connection Pump Regulator Stub Up Vent		

SystemType	dhcSystemType	CHT CHW CNDS CW DOM DUT GLY GTE HTHW LPS MTW	Chiller Tower Line Chilled Water Condensate Condenser Water Domestic Hot Water Dual Temperature Water Glycol Geothermal High Temperature Hot Water Low Pressure Steam Medium Temperature Hot Water	
SourceType	dhcSourceType	Boiler Chiller Cooling Tower		
Manufacturer	dhcManufacturer	Carrier Trane		
NumberCells	dhcNumberCells	1 2 3 4 5 6		
TurnDirection	dhcTurnDirection	Right Hand Left Hand		
MaterialType	dhcMaterialType	Cast Iron Ductile Fiberglass Plastic Steel Transite Z-Crete		



OuterJacketDiameter	dhcOuterJacketDiameter	6		
		7		
		8		
		9		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		
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		32		
		33		
		34		
SupplyReturn	dhcSupplyReturn	Supply Return Not Applicable		

Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym	
MaterialType	dswMaterialType	ACP ABS CI CU DIP HDPE PVC RCP SDR TR VCP	Asbestos Cement Pipe Acrylonitrile Butadiene Styrene Cast Iron Copper Ductile Iron Pipe High Density Polyethylene Polyvinyl Chloride Reinforced Concrete Pipe Standard Dimension Ratio 35 Transite Vitrified Clay Pipe	
DetentionType	dswDetentionType	BMP Structure Concrete Chamber Pipe Rain Garden		
DetentionBMPTType	dswDetentionBMPTType	Bioretention System Dry Well Extended Detention Basin Standard Constructed Wetland Wet Ponds Wetlands		
InletType	dswInletType	Drop Inlet Pre-Cast Catch Basin Trench Drain Recycle Drain		
GrateType	dswGrateType	A B E EE Other		
GrateShape	dswGrateShape	Circle Rectangular Square		

InletADiameter	dswDiameter	0.5		
InletBDiameter		1		
InletCDiameter		1.5		
InletDDiameter		2		
InletEDiameter		3		
OutletADiameter		4		
OutletBDiameter		5		
OutletCDiameter		6		
OutletDDiameter		7		
OutletEDiameter		8		
		9		
		10		
		11		
		12		
		13		
		14		
		15		
		16		
		17		
		18		
		19		
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		24		
		25		
		26		
		27		

		28		
		29		
		30		
		32		
		36		
		48		
		60		
		72		
		96		
ManholeDiameter	dswManholeDiameter	12		
		18		
		22		
		23		
		24		
		25		
		26		
		27		
		28		
		30		
		31		
		32		
		33		
		38		
OutfallDiameter	dswOutfallDiameter	12		
		18		
		24		
		36		
		48		
OutfallStructure	dswOutfallStructure	Flared End		
		Headwall		
		Pipe		
		Riser		
OpeningType	dswOpeningType	Flared End Opening		
		Headwall Opening		
		Pipe Opening		

PointType	dswPointType	Air Water Separator Connection Outlet Structure Scour Hole		
DischargeType	dswDischargeType	Air Water Separator Connection Outlet Structure Scour Hole		
ExteriorInterior	dswExteriorInterior	Exterior Interior		
DischargeDiameter	dswDischargeDiameter	0.5 0.75 1 1.25 1.5 2 2.5 3		
CulvertType	dswCulvertType	Box Ellipse Pipe		
BoxSides	dswBoxSides	3 4		
EllipticalSize	dswEllipticalSize	14x23 19x30 24x38 29x45 34x23 38x60 43x68 48x76 58x91 68x106		
FlowType	dswFlowType	Forced Gravity		
ForceType	dswForceType	Ejector Sump		

PipeShape	dswPipeShape	Circle Ellipse		
SwaleMaterialType	dswSwaleMaterialType	Concrete Dirt Grass Stone		
Diameter	dswDiameter	0.5 1 1.5 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27		

		28		
		29		
		30		
		32		
		36		
		48		
		60		
		72		
		96		
Manufacturer	dswManufacturer	AquaShield		
		BaySaver		
		BioClean		
		CONTECH		
		Environment 21		
		Hydro		
		Hydroworks		
		Jensen		
		Lane		
		Oldcastle		
		StormTrap		
		Suntree		
		Terre Hill		

MTDType	dswMTDType	Aqua-Filter Aqua-Swirl Barracuda Bayfilter Enhanced Media Cartridge Biopod Biofilter Continuous Deflective Separator Debris Separating Baffle Box Downstream Defender Dual Vortex Separator Filtterra Bioretention System First Defense HC HydroStorm Hydrodynamic Separator Jensen Deflective Separator Kraken Stormwater Filtration System Nutrient Separating Baffle Box Perkfilter Media Filtration System SciClone Hydrodynamic Separator SiteSaver Stormwater Treatment Device StormFilter StormKleener Cartridge System StormPro Stormwater Treatment Device Terre Kleen Up-Flo Filter		
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Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym	
BMPTType	dswBMPTType	Bioretention System Blue Roof Cistern Dry Well Extended Detention Basin Grass Swales Green Roof Manufactured Treatment Device Pervious Paving System Sand Filter Standard Constructed Wetland Subsurface Gravel Vegetative Filter Strip Wet Ponds Wetlands		
CleanOutDiameter	dcsCleanOutDiameter	6 12		
MaterialType	dcsMaterialType	ABS CI DIP HDPE PVC RCP SDR TR VCP	Acrylonitrile Butadiene Styrene Cast Iron Ductile Iron Pipe High Density Polyethylene Polyvinyl Chloride Reinforced Concrete Pipe Standard Dimension Ratio 35 Transite Vitrified Clay Pipe	
DetentionType	dcsDetentionType	BMP Structure Concrete Chamber Pipe		
DetentionBMPTType	DetentionBMPTType	Bioretention System Dry Well Extended Detention Basin Standard Constructed Wetland Wet Ponds Wetlands		

Capacity	dcsTankCapacity	1000 1250 1500 1750 2000 2250 2500 2750 3000		
InletType	dswInletType	Drop Inlet Pre-Cast Catch Basin Trench Drain Recycle Drain		
GradeShape	dswGrateShape	Circle Rectangular Square		
GrateType	dswGrateType	A B E EE Other		
Manufacturer	dswManufacturer	AquaShield BaySaver BioClean CONTECH Environment 21 Hydro Hydroworks Jensen Lane Oldcastle StormTrap Suntree Terre Hill		

MTDType	dswMTDType	Aqua-Filter Aqua-Swirl Barracuda Bayfilter Enhanced Media Cartridge Biopod Biofilter Continuous Deflective Separator Debris Separating Baffle Box Downstream Defender Dual Vortex Separator Filterra Bioretention System First Defense HC HydroStorm Hydrodynamic Separator Jensen Deflective Separator Kraken Stormwater Filtration System Nutrient Separating Baffle Box Perkfilter Media Filtration System SciClone Hydrodynamic Separator SiteSaver Stormwater Treatment Device StormFilter StormKleener Cartridge System StormPro Stormwater Treatment Device Terre Kleen Up-Flo Filter		
OpeningType	dcsOpeningType	Flared End Opening Headwall Opening Pipe Opening		

PointType	dcsPointType	Acid Waste Station Acid Pit Air Water Separator Bend Bypass Valve Cap Connection Grease Separator Outlet Structure Overflow Reducer Scour Hole Sediment Separator Stub Up Tee Tracer Station Vent Wash Water Treatment Wye Yard Drain		
DischargeDiameter	dcsDischargeDiameter	0.5 0.75 1 1.25 1.5 2 2.5 3		
NormalStatus	dcsOpenClose	0.5 0.75 1 1.25 1.5 2 2.5 3		

EllipticalSize	dcsEllipticalSize	14x23 19x30 24x38 29x45 34x23 38x60 43x68 48x76 58x91 68x106		
FlowType	dswFlowType	Forced Gravity		
ForceType	dswForceType	Ejector Sump		
PipeShape	dcsPipeShape	Circle Ellipse		

Diameter	dcsDiameter	0.5		
		1		
		1.5		
		2		
		3		
		4		
		5		
		6		
		7		
		8		
		9		
		10		
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		25		
		26		
		27		
		28		
		29		
		30		
		32		
		36		
		48		
		60		
		72		
		96		

Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym	
FittingType	dwFittingType	Bend Cap Coupling Flange Line Stop Reducer Saddle Sleeve Tee Wye		
Diameter	dwDiameter	0.5 0.75 1 1.25 1.5 2 2.5 3 4 5 6 8 10 12 14 16 20 24 30 36 60		
HydrantType	dwHydrantType	Fire Flushing		

Manufacturer	dwManufacturer	Darling Corey Kennedy Mueller US Pipe Wood		
Model	dwModel	K-10 K-11 K-12 K-81		
NozzleDiameter	dwNozzleDiameter	1.5 5.25		
PointType	dwPointType	Backflow Preventer Flow Alarm Recycle Spigot Spigot Sprinkler Sprinkler Controller Sprinkler Distribution Vent		
InletDiameter	dwInletDiameter	6 7 8 9 10		
OutletDiameter	dwOutletDiameter	10 11 12		
RatedPressure	dwRatedPressure	50 60 70 80 90 100		



ValveType	dwValveType	Bypass Fire Gate Hydrant Mainline Service Sprinkler		
TurnDirection	dwTurnDirection	Right Hand Left Hand		
ServiceType	dwServiceType	Fire Potable		
LateralType	dwLateralType	Fire Fountain Hydrant Irrigation Potable Sensor		
MaterialType	dwMaterialType	Fire Fountain Hydrant Irrigation Potable Sensor	Cast Iron Concrete Cross-Linked Polyethylene Ductile Iron PVC-C-900 Steel Pipe	
DistributionMainType	dwServiceType	Fire Potable		

Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym	
ServiceType	deServiceType	1 2 Light Combined EMG E-CTRL HTHW-CTRL FIRE CTRL PV-CTRL	Primary Secondary Light Combined Emergency Power Electric Control Wiring HTHW Control Wiring Fire Alarm Control Wiring Solar Control Wiring	
FuelType	deFuelType	C D G LPG NG	Combination of Diesel and Gasoline Diesel Gasoline Propane Natural Gas	
Voltage	deVoltage	4.16 kV 13 kV 13.2 kV 26 kV 69 kV 480 V or less		
PointType	dePointType	Cap Connection		
Position	dePosition	3 4 5		
SwitchType	deSwitchType	Loop Radial		

Capacity	deCapacity	100 225 300 333 500 750 1000 1500 2000 2500 3000		
TransformerType	deTransformerType	Aerial Pad Mount Pit		
PrimaryVoltage	dePrimaryVoltage	13 kV 13.2 kV 26 kV 69 kV		
SecondaryVoltage	deSecondaryVoltage	4.16 kV 480 V or less		
DuctbankMaterialType	decDuctbankMaterialType	Multi-Tile Duct PVC Steel Wood		
ConduitSize	decConduitSize	0.5 0.75 1 1.25 1.5 2 2.5 3 4 5 6		
ConduitMaterialType	deConduitMaterialType	Galvanized PVC		

Diameter	deConduitSize	0.5		
		0.75		
		1		
		1.25		
		1.5		
		2		
		2.5		
		3		
		4		
		5		
Class	decClass	6		
		0.5		
		0.75		
		1		
		1.25		
		1.5		
		2		
		2.5		
		3		
		4		
		5		
		6		

Attribute	GIS Domain	Permitted Values	Definition, if permitted value is an abbreviation or acronym
SystemType	dcSystemType	Copper Fiber Optic	
HandholeDimension	dcHandholeDimension	4 x 4 x 4	Unit is feet
ManholeDimension	dcManholeDimension	8 x 6 x 7 12 x 6 x 7	Unit is feet
PointType	dcPointType	Bend Cap Connection Stub Up	

PullboxDimension	dcPullboxDimension	6x6x4 6x6x6 8x6x4 8x8x4 8x8x6 8x8x8 10x8x4 10x10x4 10x10x6 10x10x8 12x10x6 12x12x4 12x12x6 12x12x8 12x12x12 16x12x6 16x16x6 16x16x8 16x16x12 18x18x6 20x16x6 20x20x8 20x20x12 24x20x8 24x24x6 24x24x8 24x24x10 24x24x12 30x24x8 30x30x12 36x36x12	Unit is inches
CableMaterialType	dcCableMaterialType	Copper Coaxial Copper Twisted Pair Fiber	

ConduitTradeSize	dcConduitTradeSize	1 2 3 4 5 6	
ConduitMaterialType	deConduitMaterialType	Galvanized PVC	
DuctbankMaterialType	decDuctbankMaterialType	Multi-Tile Duct PVC Steel Wood	
Class	decClass	1 2 3 4 5 6 7 8 9 10	