

CITY OF WESTMINSTER GIS DIGITAL DATA SUBMISSION REQUIREMENTS

1. GIS Digital Data Submission applies to as-builts and recorded plats only.
2. Acceptable Data Formats in order of preference:
 - a) ArcView Shapefiles
 - b) ESRI Geodatabase (Personal or File)
 - c) DXF (AutoCAD Drawing Exchange Format)
 - d) DWG (CAD drawing file)
 - e) DGN (Intergraph graphics file)
3. Standard transfer media will be accepted on flash drives.

The use of alternate media must be approved by the City. The submitted media shall be labeled with the title of the project (drawing file name), type of drawing (i.e. final plat), project contact information (name, affiliation, phone number, etc.) and a submittal and file creation date.

4. All drawing elements shall be submitted referencing the Maryland State Plane Coordinate System and will utilize the North American Datum of 1983 HARN (NAD83 HARN) for horizontal control and be measured in US Feet (not meters) (*NAD_1983_HARN_StatePlane_Maryland_FIPS_1900_Feet*).
5. To expedite the conversion of CAD data into the City GIS, the following requirements shall be met:
 - a) Closure is critical in converting CAD elements to GIS features, all polygon features (i.e. parcel boundaries) shall be 'snapped' closed.
 - b) Submitted files shall contain only complete polygon features.
 - c) The segregation of layering shall allow for each component to be individually isolated in its entirety. All layer names shall be easily recognizable as the data they represent.
 - d) Proposed and existing entities shall be on separate layers.
 - e) The submittal with its required layers shall not maintain any external references, attachments, or third party layers.
 - f) Drawing features/layers shall include descriptive attributes in a feature linked attribute table. For example:

Feature	Feature Description	Layer Name	Data Type	Attributes (Field Name)	Field Description	Field Type	Field Length	STATUS	Attribute Domains
Water Pipe	Water distribution mains.	wMain	Polyline	INSTALLDATE	The date the asset was installed	Date	8	REQUIRED	none
				MATERIAL	Material the main is manufactured with	String	50	REQUIRED	CI DI GS PVC OTHER
				DIAMETER	The diameter of the main	Double	8	REQUIRED	none
Water Fitting	Water network features that connect segments of pipe.	wFitting	Point	INSTALLDATE	The date the asset was installed	Date	8	REQUIRED	none
				FITTINGTYPE	The type of fitting	String	50	REQUIRED	BEND CAP CROSS ELBOW PLUG RED TEE TAP SAD SLV WYE OTHER
				DIAMETER	The diameter of the asset	Double	8	REQUIRED	none
Water Valve	Water network valves that do not have a pressure controlling mechanism.	wSystemValve	Point	INSTALLDATE	The date the asset was installed	Date	8	REQUIRED	none
				VALVETYPE	Type of system valve	String	30	REQUIRED	GATE HYDRANT METER NUT VAULT WATER MAIN OTHER
				DIAMETER	The diameter of the asset	Double	8	REQUIRED	none
Water Hydrants		wHydrant	Point	INSTALLDATE	The date the asset was installed	Date	8	REQUIRED	none
Water Meters		wServiceConnection	Point	INSTALLDATE	The date the asset was installed	Date	8	REQUIRED	none

6. Digital submissions to the city shall include everything displayed on the physical file including the base and utility system layers as listed below.

- **Base Layers**

- Roads Right of Ways
- Roads Centerlines with Street Names
- Roads edge of pavement polygon
- Encumbrance / Easement Boundaries
- Parcels lines / lot lines / lot numbers
- Building Footprints

- **Water Layers**

- Water mains
- Water valves
- Fire hydrants
- Blow offs
- Reducers
- Water fitting
- Water meter
- Backflow devices
- Air release valves (ARV's)
- Corrosion Protection Equipment (Test stations/Bond Junctions/Anodes, etc.)
- Water main inspection plates
- Water Quality Sampling Stations
- Main size indicators
- Text describing water components

- **Solid Waste Layers**

- Commercial Enclosures (if applicable)

- **Wastewater Layers**

- Wastewater mains
- Wastewater manholes
- Wastewater laterals
- Wastewater lateral cleanouts
- Wastewater flow/main size indicators
- Wastewater flushing branches
- Wastewater force mains
- Lift stations, ARV's, Blow-offs,
- Corrosion Protection Equipment (Test stations/Bond Junctions/Anodes, etc.)
- Text describing wastewater components

- **Recycled Water Layers**

- Recycled water mains
- Recycled water valves
- Blow offs
- Recycled hydrants
- Main size indicators
- Recycled water services
- Meter boxes
- Air release valves

Corrosion protection equipment: Bond junctions & test locations Recycled water main inspection plates

Text describing recycled water components

- **Stormwater Layers**

Stormwater pipes

Stormwater laterals

Stormwater manholes

Stormwater flow/main size indicators

Stormwater outlets

Stormwater inlets

Stormwater swales & channels

Stormwater outfalls

Low Impact Development

Features: (Vegetated swale, Infiltration Trench, Infiltration Basin, Porous Pavement etc.)

Treatment Units: (Bio retention filter, Hydrodynamic separators, Filtration Device, Sand Oil Separators)

Text describing stormwater components

- **Irrigated Landscape Layers:**

A Closed Polygon depicting Turf Area

A Closed Polygon depicting Non Turf Area

- **Other layers**

North Arrow, Existing utilities for water, wastewater recycled water and stormwater if applicable for clarification of proposed tie-ins, etc.

File and Layer naming should be as follows:

File: ProjectName_CountyFileNo.(or)JobNo.

Layers:

	Layer Name	Layer Description
Base		
	ROW	Roads Right of Ways
	Roads	Roads Centerlines
	Roads_EOP	Roads edge of pavement polygon
	Easement	Encumbrance / Easements
	Parcel	Parcels lines / lot lines / lot numbers
	Building	Building Footprints
Water		
	wMain	Water mains
	wSystemValve	Water valves
	wHydrant	Fire hydrants
	wBlowOff	Blow offs
	wReducer	Reducers
	wFitting	Water Fitting
	wServiceConnection	Water Meters
	wBackflowDevice	Backflow devices
	wARV	Air release valves (ARV's)
	wCPE	Corrosion Protection Equipment (Test stations/Bond Junctions/Anodes, etc.)
	wMainInspectionPlate	Water main inspection plates
	wQualitySS	Water Quality Sampling Stations
Solid Waste		
	SolidWaste	Commercial Enclosures
Wastewater		
	wwMain	Wastewater Mains
	wwStructure	Wastewater Structures
	wwManhole	Wastewater Manholes
	wwLateral	Wastewater Lateral
	wwLateralCO	Wastewater Lateral Cleanouts
	wwARV	Wastewater Air Release Valves
	wwSystemValve	Wastewater Valves
	wwBlowOff	Wastewater Blow offs
	wwServiceConnection	Wastewater Meters
	wwCPE	Wastewater Corrosion Protection Equipment (Test stations/Bond Junctions/Anodes, etc.)
Recycled Water		
	rwMain	Recycled Water Mains
	rwSystemValves	Recycled Water Valves
	rwBlowOff	Recycled Water Blow offs
	rwHydrant	Recycled Hydrants
	rwServiceConnection	Meter boxes
	rwARV	Air release valves
	rwCPE	Corrosion protection equipment: Bond junctions & test locations Recycled water main inspection plates
Stormwater		
	swPipe	Stormwater Pipes
	swCulvert	Stormwater Culverts
	swStructure	Stormwater Structures
	swFacility	Stormwater Facilities
	swDrain	Stormwater Drains

Contact Information: City of Westminster GIS

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