

## **Section I – Data Acceptance Standards**

**File Geodatabase Acceptance Standards:** A file geodatabase is a collection of various file formats in a single location. The file geodatabase is the desired filing structure for municipal GIS data shared with the Township of King during or upon completion of Township projects. File geodatabases maintain schema aliases and enables ideal data interoperability. If the Township shares geospatial data to complete a project, file geodatabases should be returned containing updated versions of the geospatial data, while maintaining the same schema (or data structure). File geodatabases can store:

- Feature datasets
- Feature classes
- Tables
- Relationship classes
- Raster datasets
- Mosaic datasets
- Toolboxes

Feature datasets organize geospatial data within the preferred filing structure of the file geodatabase. Feature classes consist of points, lines, polygons, among other features. For more information on file geodatabases, read the following [Esri documentation](#).

All GIS data accepted by the Township of King should be provided in a file geodatabase, opposed to the simpler shapefile format. For organizations using ArcGIS Pro, Project Packages or Map Packages will suffice. Some organizations may operate using basic GIS software licenses may be unable to provide the level of detail requested.

**Shapefile Acceptance Standards:** The shapefile (*.shp*) is a geospatial vector data format accepted almost universally across various GIS platforms. Shapefiles store nontopological geometry and restricted attribute schema. Shapefiles can store the geometric data types of points, lines, and polygons. A shapefile consists of three mandatory files *.shp* containing the feature geometry, *.shx* shape index/positional index, and *.dbf* attribute format information such as column attributes. However, a shapefile is likely to consist of a variety of other supporting files including but not limited to: *.shp.xml* relating to geospatial metadata and *.prj* which defines the projection for the shapefile. Shapefiles can be exported to CAD files, and vice versa:

Streetlight.cpg	11/06/2019 9:35 AM	CPG File	1 KB
Streetlight.dbf	11/06/2019 9:35 AM	DBF File	79 KB
Streetlight.prj	11/06/2019 9:35 AM	PRJ File	1 KB
Streetlight.sbn	11/06/2019 9:35 AM	SBN File	2 KB
Streetlight.sbx	11/06/2019 9:35 AM	SBX File	1 KB
Streetlight.shp	11/06/2019 9:35 AM	AutoCAD Shape S...	7 KB
Streetlight.shp.KING00384.2824.2752.sr.lo...	11/06/2019 9:35 AM	LOCK File	0 KB
Streetlight.shp.xml	11/06/2019 9:35 AM	XML Document	11 KB
Streetlight.shx	11/06/2019 9:35 AM	AutoCAD Compil...	2 KB

(Image 1: shapefile contents post CAD conversion example)

## **Section II – Coordinate System Standards**

**Coordinate System Standards:** All shapefiles submitted to the Township of King must adhere to the coordinate system standards stated below:

**Geographic Coordinate System:** GCS  
North American 1983  
Angular Unit: Degree  
(0.0174532925199433)  
Prime Meridian: Greenwich (0.0)  
Datum: D North American 1983  
Spheroid: GRS 1980  
Semimajor Axis: 6378137.0  
Semiminor Axis: 6356752.314140356

Inverse Flattening: 298.257222101  
**Projection:** Universal Transverse Mercator  
Zone 17N  
False Easting: 500000.0  
False Northing: 0.0  
Central Meridian: -81.0  
Scale Factor: 0.9996  
Latitude Of Origin: 0.0  
Linear Unit: Meter (1.0)

*In most GIS and CAD software packages, this specific coordinate system-projection combination will be recognized simply as, NAD\_1983\_UTM\_Zone\_17N*

## **Section III – Schema Standards**

**Schema Standards:** While the data files must adhere to the formatting and coordinate system standards stated above (*Section I and Section II*), the data stored in the attribution tables (also referred to as tabular data) must mirror the schema standards presented in the tables below. These standards include geometry type, column naming conventions/field names, units, data type, length, precision, and scale. These tables are organized by subject matter, which include: roads and infrastructure, water, utilities, and parks and landscaping.

### **Transportation Network and Infrastructure:**

**Table 1**

<b>Signs</b>	<b>Signs (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Type	String		255		
Category	String		255		
Barcode	String		50		
Support_Number	Short Integer			5	
Install_Date	Date	mm/dd/yyyy		10	
Pole_Type	String		50		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 2**

<b>Road Asset Management</b>	<b>Road_Asset_Management (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
SurfaceType	String		50		
Width	String		50		
Install_Date	Double	yyyy		38	8
Road	String		100		
Description	String		250		
Location	String		100		

**Table 3**

<b>Sidewalks</b>	<b>Sidewalks (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Type	String		50		
Install_Date	Double	yyyy		38	8
Width	Double	m		23	5
SurfaceType	String		50		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 4**

<b>Curbs</b>	<b>Curbs (polyline)</b>				
<b>Field</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Type	String		50		
Condition	Short Integer			5	
Length	Double	m		20	2
Direction	String	Cardinal Bearings	2		
Road	String		50		
Install_Year	Double	yyyy		16	0

**Table 5**

<b>Retaining Walls</b>	<b>Retaining_Walls (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Type	String		50		
Material	String		50		
Length	Double	m		20	2
Install_Date	Double	yyyy	10	16	

**Table 6**

<b>Safety Systems</b>	<b>Safety_Systems (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
System_Type	String		50		
Install_Date	String	mm/dd/yyyy	10		
Road	String	100			
Description	String	250			
Location	String	100			

**Table 7**

<b>Structural Culverts</b>	<b>Culvert_Structures (polygon)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Culvert_Type	String		50		
Depth	Double	m		18	2
Material	String		50		
Length	Double	m		18	2
Diameter	Double	m		18	2
Upstream_Elevation	Double	m		18	2
Downstream_Elevation	Double	m		18	2
Span_Length	Double	m		18	2
Deck_Width	Double	m		18	2
Deck_Area	Double	m <sup>2</sup>		18	2
Install_Date	Double	yyyy		16	0
Road	String		100		
Description	String		250		
Location	String		100		

**Table 8**

<b>Bridge Deck</b>	<b>Bridge_Deck (polygon)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Surface_Type	String		50		
Length	Double	m		23	5
Width	Double	m		23	5
Deck_Area	Double	m <sup>2</sup>		23	5
Road	String		50		
Description	String		250		
Location	String		100		

**Water, Wastewater and Stormwater Network and Infrastructure:**

**Table 9**

<b>Hydrants</b>	<b>Hydrants (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Model	String		50		
Pressure	String		50		
Install_Date	String		50		
Self_Draining	String		50		
Make	String		50		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 10**

<b>Water Meter Chambers</b>	<b>Water_Meter_Chamber (point)</b>				
<b>Field</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Diameter	String	mm	50		
Type	String		50		
Road	String		100		
Description	String		250		
Location	String		100		



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**Table 11**

<b>Water Sampling Stations</b>	<b>Water_Sampling_Stations (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Sampling_Type	String		30		
Install_Date	Date	mm/dd/yyyy			
Road	String		100		
Description	String		250		
Location	String		100		

**Table 12**

<b>Water Valves</b>	<b>Water_Valves (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Valve_Type	String		30		
Diameter	Long Integer	mm		10	
Make	String		4		
Modulator_Valve_Type	String		60		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 13**

<b>Curb Stops</b>	<b>Curb_Stops (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Valve_Type	String		30		
Diameter	Long Integer	mm		10	
Valve_Function	String		60		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 14**

<b>Water Services</b>	<b>Water_Services (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Material	String		4		
Main_Diameter	Long Integer	mm		10	
Service_Type	String		125		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 15**

<b>Watermain</b>	<b>Watermain (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Material	String		4		
Main_Diameter	Long Integer	mm		10	
Road	String		100		
Description	String		250		
Location	String		100		

**Table 16**

<b>Wastewater Pumping Stations</b>	<b>Wastewater_Pumping_Stations (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Number_of_Pumps	Long Integer			10	0
Rated_Capacity	Double			38	8
Well_Type	String		10		
Bottom_Elevation	Double	mm		38	8
Overflow_Elevation	Double	mm		38	8
CHEMPT	String		3		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 17**

<b>Wastewater Connection Points</b>	<b>Wastewater_Connection_Points (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Connection_Type	String		40		
Install_Date	Date	mm/dd/yyyy			
Road	String		100		
Description	String		250		
Location	String		100		

**Table 18**

<b>Wastewater Fitting</b>	<b>Wastewater_Fitting (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Type	String		60		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 19**

<b>Wastewater Valves</b>	<b>Wastewater_Valves (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Diameter	Long Integer	mm		10	
Road	String		100		
Description	String		250		
Location	String		100		



**Table 20**

<b>Wastewater Manholes</b>	<b>Wastewater_Manholes (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Rim_Elevation	Double	mm		38	8
Diameter	Double	m		38	8
Road	String			100	
Description	String			250	
Location	String			100	

**Table 21**

<b>Wastewater Services</b>	<b>Wastewater_Services (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Material	String		4		
Diameter	Long Integer	mm		10	0
Service_Type	String		125		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 22**

<b>Wastewater Main</b>	<b>Wastewater_Main (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Pipe_Type	String		30		
Pipe_Material	String		4		
Main_Diameter	Long Integer	mm		10	
Upstream_Invert	Double	m		38	8
Downstream_Invert	Double	m		38	8
Slope	Double			38	8
Install_Date	Date	mm/dd/yyyy			
Road	String		100		
Description	String		250		
Location	String		100		

**Table 23**

<b>Stormwater Connection Points</b>	<b>Stormwater_Connection_Points (point)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Connection_Type	String		50		
Install_Date	Date	mm/dd/yyyy			
Road	String		100		
Description	String		250		
Location	String		100		

**Table 24**

<b>Discharge Points</b>	<b>Discharge_Points (point)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Diameter	Long Integer	mm		10	
Type	String		50		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 25**

<b>Stormwater Fitting</b>	<b>Stormwater_Fitting (point)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Type	String		60		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 26**

<b>Catch Basins</b>	<b>Catch_Basins (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
CB_Type	String		50		
Elevation	Double			38	8
Cover_Type	String		8		
Diameter	Long Integer	mm		10	
Road	String		100		
Description	String		250		
Location	String		100		

**Table 27**

<b>Catch Basin Manholes</b>	<b>Catch_Basins_Manholes (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Diameter	String	mm	50		
Cover_Type	String		50		
CBMH_Type	String		50		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 28**

<b>Stormwater Manholes</b>	<b>Stormwater_Manholes (point)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Diameter	Double	mm		38	8
Road	String		100		
Description	String		250		
Location	String		100		

**Table 29**

<b>Culverts</b>	<b>Culverts (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Material	String		20		
Diameter	Long Integer	mm		10	
Type	String		125		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 30**

<b>Catch Basin Leads</b>	<b>Catch_Basin_Leads (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Pipe_Type	String		30		
Pressure_Type	String		12		
Material	String		64		
Main_Diameter	Long Integer	mm		10	
Road	String		100		
Description	String		250		
Location	String		100		

**Table 31**

<b>Stormwater Services</b>	<b>Stormwater_Services (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Material	String		4		
Main_Diameter	Long Integer	mm		10	
Service_Type	String		125		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 32**

<b>Stormwater Main</b>	<b>Stormwater_Main (polyline)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Material	String		4		
Main_Diameter	Long Integer	mm		10	
Upstream_Invert	Double	m		38	8
Downstream_Invert	Double	m		38	8
Slope	Double	%		38	8
Pipe_Type	String		50		
Pressure_Type	String		12		
Type	String		64		
Consumption_Percent	String	%	50		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 33**

<b>Stormwater Ponds</b>	<b>Stormwater_Ponds (polygon)</b>				
<b>Field Name</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Install_Date	Date	mm/dd/yyyy			
Road	String		100		
Description	String		250		
Location	String		100		

**Table 34**

<b>Easements</b>	<b>Easements (polygon)</b>				
<b>Field</b>	<b>Data Type</b>	<b>Unit</b>	<b>Length</b>	<b>Precision</b>	<b>Scale</b>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Purpose	String		50		
Road	String		100		
Description	String		250		
Location	String		100		

Utilities:

**Table 35**

<b>Pedestals</b>	<b>Pedestals (point)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		

**Table 36**

<b>Transformers</b>	<b>Transformers (Point)</b>				
<i>Field</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		

**Table 37**

<b>Streetlights</b>	<b>Streetlights (point)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Height	Double	m		38	8
Pole_Type	String		50		
Pole_Colour	String		50		
Wattage	Double	W		38	8
Luminaires	String		50		
Head_Type	String		50		
Pole_Number	Double			38	8
Install_Date	Date	mm/dd/yyyy	10		
Road	String		100		
Description	String		250		
Location	String		100		
Hydro_Pole_Attachment	String		10		

**Table 38**

<b>Light Wiring</b>	<b>Light_Wiring (polyline)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Wire_Type	String		50		
Wire_Colour	String		50		
Duct_Type	String		50		
Duct_Size	Double	mm		18	2
Elevation	Double	mm		18	2
Install_Date	String	mm/dd/yyyy	10		

**Table 39**

<b>Conduit</b>	<b>Conduit (polyline)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Size	Double	mm		18	2
Material	String		50		
Asset_ID	String		50		
Install_Date	Date	mm/dd/yyyy			

**Parks and Landscaping:**

**Table 40**

<b>Park Assets</b>	<b>Park_Assets (Point)</b>				
<i>Field</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Type	String		50		
Install_Date	Double	yyyy		38	8
Road	String		100		
Description	String		250		
Location	String		100		

**Table 41**

<b>Trails</b>	<b>Trails (polyline)</b>				
<i>Field</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Surface_Type	String		20		
Road	String		100		
Description	String		250		
Location	String		100		

**Table 42**

<b>Facilities</b>	<b>Facilities_Footprints (polygon)</b>				
<i>Field Name</i>	<i>Data Type</i>	<i>Unit</i>	<i>Length</i>	<i>Precision</i>	<i>Scale</i>
Asset_ID	String		50		
Citywide_ID	Integer			5	
Year_Built	String		50		
Road	String		100		
Description	String		250		
Location	String		100		

## **Section IV – Geometry Standards**

The way geospatial features are provided to the Township is critical for data integration across various Township-wide business systems and processes. Some data records are meant to be segmented or split to match ideal representations for the purpose of finer asset management. The following sub-sections offer guidance as to how the Township expects new data records to be provided for certain layers. Polyline type data records should be snapped to one another for the purposes of potential modelling, unless there is meant to be a break in service. Furthermore, new data records being provided to the Township should be assigned unique asset identifiers based on the Asset ID Nomenclature Standards captured in Section V.

### **Water, Wastewater and Stormwater Infrastructure:**

#### Watermain

The watermain layer is to be segmented based on pipe:

- Age
- Diameter
- Material
- Tee-to-tee locations

#### Wastewater Main

The wastewater main layer is to be segmented based on pipe:

- Age
- Diameter
- Material
- Manhole locations

#### Stormwater Main

The stormwater main layer is to be segmented based on pipe:

- Age
- Diameter
- Material
- Manhole locations

## **Section V – Asset ID Nomenclature Standards**

### **Asset IDs:**

All the tables listed above feature *Asset\_ID* as a universal attribute field. *Asset\_ID* acts as the primary key for all datasets pertaining to Township assets. Asset identifiers contain a prefix and a unique sequence. A prefix is assigned based on the location (e.g., village), the system it belongs to (e.g., water, roads), and the type of asset (e.g., hydrant, bench etc.). The prefix is followed by the sequence, which includes an underscore, followed by four unique digits. Developers/contractors will be provided a range of these four digits for each asset they are responsible for installing prior to drafting preliminary drawings. The specific nomenclature of these asset IDs are as follows:





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**Prefix**

The prefix is a 4-digit alpha identifier where:

Digit	Description	Definition	
		Short	Long
1 <sup>st</sup>	Location of the Asset	A B C K L N O P S W Y	Ansnorveldt Kettleby Cold Creek King City Lloydtown Nobleton all Other Pottageville Schomberg Snowball Laskay
2 <sup>nd</sup>	System the Asset is part of	B F P R S T W U	Building Facilities Parks Roads Sanitary (Wastewater) Storm Water Utility
3 <sup>rd</sup> and 4 <sup>th</sup>	Type of Asset	AR AU BD BH BK BL BS CB CD CL CM CO CP CS CR CV CW CX DB DH DI EM ET FB FD FL FN FT GB GL GR HH HW HY LW MC	Air Release Valve Above Utilities Ball Diamond Ball Hockey Pad Bridge Deck Bleacher Bridge Structure Catch Basin (Ditch inlet, Catch Basin) Conduit Catch Basin Leads Catch Basin Manhole Culvert (structural culverts) Connection Point Curb Stop Curb Culvert (small culverts) Clean water Collector Community Mailbox Double Catch Basin Dry Hydrant Ditch Inlet Easement End Treatment Foot Bridge Foundation Drain Collector Fiber Line Fence Fitting Geodetic Benchmark Gas Line Guide Rail Hand Holes Headwall Hydrant Light Wiring Meter Chamber



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		MF	Major Closed Facility
		MH	Manhole
		ML	Municipal Lands (Easement, Open Spaces, Buffer Blocks)
		MS	Management System (Oil Grid Separator, Cistern)
		ND	Node
		OG	Oil-Grit Separator
		OF	Open Facility (Kiosk, Gazebo)
		PD	Pedestal
		PI	Pipe (Sanitary Main, Foundation Drain Collector Sewer Storm Sewer)
		PO	Pond
		PS	Pumping Station
		PT	Play Structure
		PU	Pump
		RB	Road Base
		RC	Rear Lot Catch Basin
		RS	Road Surface
		RW	Retaining Wall
		SB	Sign Banner
		SC	Soccer Field
		SD	Subdrain
		SF	Secondary Closed Facility
		SG	Sign
		SL	Streetlights
		SM	Septic Maintenance
		SP	Splash Pad
		SS	Sampling Station
		SV	Service (Water Service, Sanitary Service, Foundation Drain Collector Lateral (Storm Lateral))
		SW	Sidewalk
		SY	Spillway
		TC	Tennis Court
		TF	Trail
		TL	Transformer
		TP	Transit Pad
		TR	Tree
		UF	Utility Street Furniture
		UT	Utility Trench
		VA	Valve
		VC	Valve Chamber
		WM	Watermain
		WS	Water Storage

**Sequence**

The sequence is a 4-digit Integer identifier. There is no particular order for how the sequence value is assigned. However, this field is 4 characters in length and so may require leading zeros, for example:

A **Hydrant** in the **Water Network** within **King City** with a unique identifier of **320** will be assigned **KWHY\_0320** as the ID:

King City	Water Network	Hydrant	Separating underscore	Leading zero	Sequence
K	W	HY	_	0	320