Digital Submission Requirements Policy

City of Gaithersburg

December 28, 2015

Contents

Document Revision History

Date	Contents
September 1, 2015	The document describes initial requirements for digital submission requirements.
December 28, 2015	Minor update and clarification in section 2.3 Map Projection

1. Introduction

The City of Gaithersburg maintains Geographic Information Systems (GIS) where property

boundaries and related information are captured, queried, mapped, and analyzed to guide decision and

policy making, notify property owners, understand the current spatial patterns, and plan a future

growth for the City. Accurate spatial and attribute information are fundamental building blocks in the

GIS. Digital submission of property/site development plans and drawings greatly improves the data

capture process, allowing accurate information to become readily available in GIS in a shorter amount of

time, thus expediting the utilization of the information.

The following describes the technical details of what is required for a successful digital submission.

The *Submission Requirements* section provides guidance on preparing the digital files, such as required

file formats, map projection, file naming convention, and such. The *Impervious Cover Drawing*

Requirements section focuses on AutoCAD drawing requirements in submitting impervious cover

information. Final subdivision plats do not have detailed requirements but do require a digital

submission in either AutoCAD or GIS format. Specifics on submitting as-built stormwater plans will

become available in upcoming months.

2. Submission Requirements

The details of digital submission requirements are described below and must be met prior to

proceeding with plan/permit processes and permit issuance. It is recommended that the template files

provided on the City website are used for digital submission.

2.1.   Required Digital Files

The following two files are required for every type of digital submission (stormwater, impervious,

subdivision plat, etc.).

(1) ESRI file geodatabase compatible with ArcGIS 10.* version (preferred) *or* AutoCAD 2004 or newer

drawing file in DWG format.

(2) Portable Document Format (PDF) file of the printed paper drawing.

2.2.   *Digital File Templates*

AutoCAD template file and GIS template database can be downloaded from the City website. Go to

www.gaithersburgmd.gov and search for Digital Submission.

2.3.   *Map Projection*

The AutoCAD drawing or GIS data should use the following projected coordinate systems/datum and

should include documentation of which coordinate system and datum is being used.

Horizontal: Maryland State Plane, U.S. survey feet, High Accuracy Reference Network (HARN)

adjustment to the 1983 North American Datum, or newer (a.k.a. MDSP feet NAD 83/91 HARN,

NAD_1983_HARN_StatePlane_Maryland_FIPS_1900_Feet). The NAD 83/91 (HARN) vertical information

is acceptable for the Z-coordinates of digital files for impervious area and subdivision plats.

Vertical (if needed): North American Vertical Datum of 1988 (NAVD 88) or newer. NAVD 88

is preferred for topographic landmarks, such as hill tops, tidal shorelines, and other features for

which elevation above mean sea level is important.

2.4.   *File Naming Convention*

File names for impervious cover should include "impervious" in the name. File names for

subdivision plats should include "plat" in the name.

(1) When submitted with a permit or plan application

AutoCAD:	[Project Name or Address]_impervious.dwg
	[Project Name or Address]_plat.dwg
ESRI file geodatabase:	[Project Name or Address]_impervious.gdb
	[Project Name or Address]_plat.gdb
ESRI feature class:	[Project Name or Address]_impervious_poly
	[Project Name or Address]_plat

(2) When submitted after a permit or plan number has been assigned

AutoCAD:	[plan or permit number]_impervious.dwg
	[plan or permit number]_plat.dwg
ESRI file geodatabase:	[plan or permit number]_impervious.gdb
	[plan or permit number]_plat.gdb
ESRI feature class:	[plan or permit number]_impervious_poly
	[plan or permit number]_plat

Examples:

SITE-1234-2015_impervious.gdb

RP-1234-2015_plat.dwg

2.5.   *Data Integrity Requirements*

- Line features should be digitized as continuous solid lines.

- Polyline features (e.g. building boundaries) should be closed entities (snapped closed at nodes

  or endpoints).

- All errors in the digital submission identified by City staff (such as polygons not properly closing,

  lines not connecting to features, etc.) must be reviewed and corrected by a licensed professional

  prior to proceeding with plan/permit processes and permit issuance.

3. Impervious Cover Drawing Requirements

Table 1. Layer format for submitting Impervious Cover CAD drawing. ***Note that all polylines must be closed entities where applicable. Also note that the City does not process submitted data and assumes that the impervious limits included in the digital submission reflect the correct dimensions and area of impervious cover for purposes of calculating fees or other charges; data providers are cautioned to pay particular attention to "island" areas and ensure that these are not included in the surrounding polygon or polyline.***

Layer Name	Geometry Type	Description
Impervious_Total	Closed Polyline or Polygon	One closed polygon showing all the impervious features in the property
Impervious_Building	Closed Polyline or Polygon	One single closed polygon per feature, including the main building, garages, sheds, roofed areas, etc.
Impervious_Roadway	Closed Polyline or Polygon	Including private roads and driveways
Impervious_ParkingLot	Closed Polyline or Polygon	If polylines, should exclude islands which are not impervious
Impervious_Sidewalk	Closed Polyline or Polygon	Including paths
Impervious_Patio	Closed Polyline or Polygon	Including patios underneath decks
Impervious_Boundary	Closed Polyline or Polygon	Property boundary or boundaries of the lot(s), parcel(s), and/or outlot(s) included or proposed in the project
Impervious_Others	Closed Polyline or Polygon	Any other Impervious features not specified above.