



## Surveyor General Branch

Beyond Boundaries

### NOTICE OF ADDENDUM

From: *Surveyor General of Canada Lands*

#### Addendum 1.7

Addendum to: *National Standards for the Survey of Canada Lands (1.1)*

Object: *Appendix E: Digital Spatial File Specifications*

The following modifications, additions, omissions, clarifications and corrections herein shall constitute an official amendment to the document it refers to.

#### DETAIL

This Addendum is published to make those changes to *Appendix E: Digital Spatial File Specifications*:

- to amend paragraphs 5, 6, 12 18 and 23.

### Appendix E: Digital Spatial File Specifications

#### Introduction

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5. The digital spatial file format must be DXF or DWG:

TABLE 1: Acceptable Versions of DXF/DWG for Digital Spatial File Returns	
DXF/DWG Version	AutoCAD versions
DXF/DWG 2000 (AC1015)	AutoCAD 2000, AutoCAD 2000i, AutoCAD 2002
DXF/DWG 2004 (AC1018)	AutoCAD 2004, AutoCAD 2005, AutoCAD 2006
DXF/DWG 2007 (AC1021)	AutoCAD 2007, AutoCAD 2008, AutoCAD 2009
DXF/DWG 2010 (AC1024)	AutoCAD 2010, AutoCAD 2011, AutoCAD 2012
DXF/DWG 2013 (AC1027)	AutoCAD 2013, AutoCAD 2014, AutoCAD 2015, AutoCAD 2016, AutoCAD 2017

6. The digital spatial file name must be composed of the following elements:

- the project number issued by the Surveyor General Branch, followed by the letters "SF";
- if required, the checklist number to distinguish multiple digital spatial files submitted for one project; and
- the file format extension (.DWG or .DXF).

Example:

[Project number][SF][Checklist number].[DXF |DWG]

200814003SF1.DWG

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## Layering

12. Table 2: Layer Names and Content below lists the layer names and the specific content for each layer, followed by paragraphs describing how to use the layers.

Additional information such as title, lot numbers, etc. is not mandatory but may be included in the digital spatial file. This additional information must be stored on other layers, and the layer structure is left to the discretion of the surveyor.

Table 2: Layer Names and Content		
Layer Name	Description	AutoCAD Object
CLSSBDRY	All primary boundaries dealt with by the plan other than natural boundaries. <i>See Section 13</i>	line or arc
CLSSSEC	All secondary boundaries dealt with by the plan other than natural boundaries. <i>See Section 14</i>	line or arc
CLSSBDRYNAT	All primary natural boundaries dealt with by the plan. <i>See Section 15</i>	polyline
CLSSSECNAT	All secondary natural boundaries dealing with easements and rights-of-way dealt with by the plan. <i>See Section 16</i>	polyline
CLSSTIE	All tie lines. <i>See Section 17</i>	line
CLSSCONDOx	All condo units, with each floor placed on a different layer. Each floor layer must be uniquely labelled CLSSCONDOx, where “x” is a unique <i>integer</i> for each floor. <i>See Section 18</i>	<i>polyline, line or arc</i>
CLSSGCP	All GCPs. <i>See Section 19</i>	3D point

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18. CLSSCONDOx contains the boundaries of all condominium units. Each unit must form a closed polygon and all unit boundaries must be an accurate representation of the unit boundaries represented on the plan. Each unit must be spatially oriented relative to the parent parcel. The parent parcel is to be shown on the CLSSBDRY layer.

For multi-floor condominiums, each floor must be placed on a separate layer in the digital file. Each floor layer must be uniquely labelled CLSSCONDOx, where “x” is a unique *integer* for each floor (e.g., “0” for basement, “1” for first floor, “2” for second floor, etc.). Common areas are not to be shown in the digital spatial file.

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## ***Topology and Structure***

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23. The following rules are to be followed for each layer (unless otherwise indicated) to ensure properly structured data:

- a. No duplicate lines:
  - i. within a particular layer,
  - ii. between CLSSBDRY and CLSSTIE, i.e. between any two points where a CLSSBDRY line exists, there shall be no corresponding CLSSTIE line, and
  - iii. between CLSSSEC and CLSSTIE, i.e. between any two points where a CLSSSEC line exists, there shall be no corresponding CLSSTIE line.
- b. No overlapping lines within the same layer.
- c. No crossing lines on CLSSBDRY and CLSSBDRYNAT.
- d. No undershoots and overshoots (see Figures 2 and 3 below).
- e. At corners or intersections, all lines must converge to the same point. Avoid and correct situations in which a small triangle, a small gap, or a small line is created (see Figures 4, 5, and 6 below).
- f. The line types must be the following AutoCAD objects:
  - i. straight lines are to be of type LINE;
  - ii. curved lines are to be of type ARC; and
  - iii. natural features are to be of type POLYLINE.
- g. Each line of the same nature must be broken at monuments (no gaps), deflections, and intersections. Lines must not be broken at other points, such as traverse hubs.

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This Addendum will come into force on the date of its publication on NRCan's Website.

***(Original Signed on January 21 2020)***

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