Guidance Note
on Providing Spatial Data
on Strategic Infrastructure Developments
and Strategic Housing Developments

1. About these Guidance Notes

These guidance notes have been prepared to assist applicants in submitting Geographical Information data relating to Strategic Infrastructure Development applications and Strategic Housing Development applications to An Coimisiún Pleanála.

2. Introduction

In order to assist An Coimisiún Pleanála in maintaining a record of Strategic Infrastructure Development applications and Strategic Housing Development applications in spatial data format, applicants are being requested to submit the site boundary or extents of a site, as an ESRI shapefile in the Irish Transverse Mercator (ITM IRENET95) co-ordinate reference system for use in Geographical Information Software.

3. Overview of Data Required

Applicants are requested to submit an ESRI shapefile with the application, showing the following in Irish Transverse Mercator (ITM):

- The application site boundary

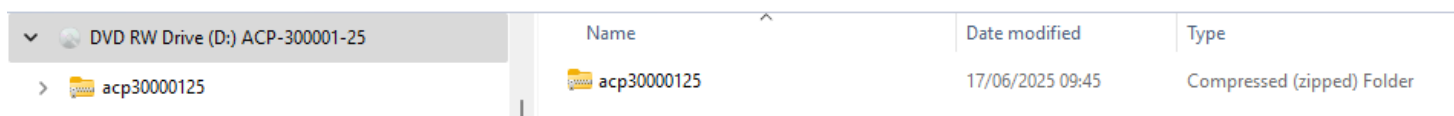## 4. Data Format and Conventions

4.1. Data Format

The spatial data submitted should comply with the following format and shall be readable by ESRI ArcMAP version 11.3 or ArcPRO 3.4.

Zipped ESRI Shapefile

4.2. File naming convention

The spatial data submitted should follow the following directory/file structure, as shown in figure 1 on page 2 and figure 2 on page 3.
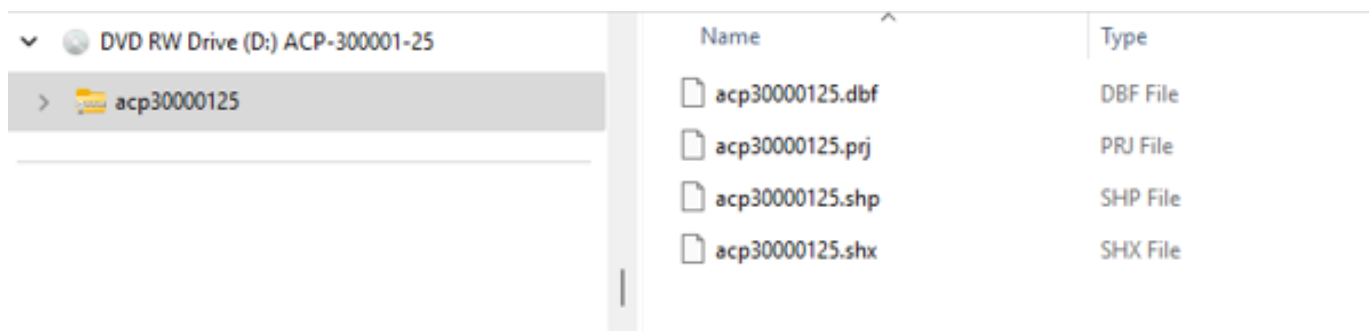
In figure 1 and figure 2, the example case number is ACP-300001-25. It is recommended to omit any hyphens from the case number, when naming files or folders.

Figure 1. Directory / File Structure showing the zipped shapefile viewed in windows explorer. The example case number is ACP-300001-25.

Figure 2. The contents of the zipped shapefile viewed in windows explorer. The example case number is ACP-300001-25.

Please note that the shapefile is a grouping of several files, which must include at least the following four files, .dbf, .prj, .shp and .shx as shown in Figure 2. Further information on shapefiles can be found at https://wiki.openstreetmap.org/wiki/Shapefiles (accessed on 6th February 2018).
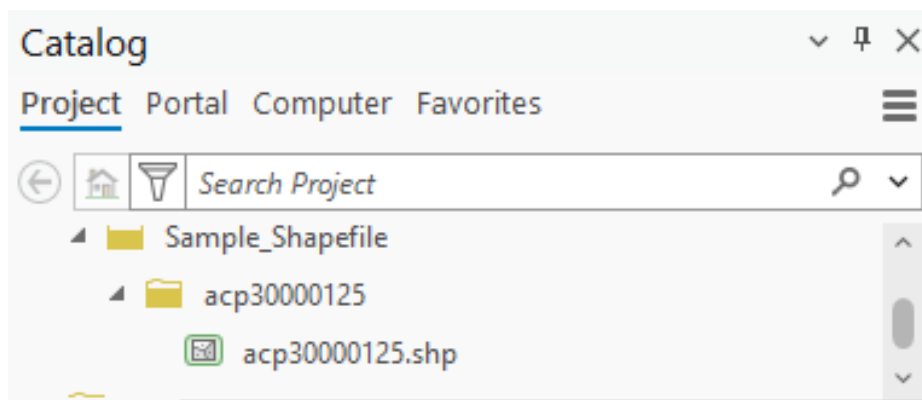
Figure 3. Directory / File Structure viewed in ArcPro. NOTE, the folder has been unzipped prior to viewing in ArcPro. The example case number is ACP-300001-25.

5. Spatial parameters
All spatial data submitted must have the following set of parameters which is currently in use by An Coimisiún Pleanála.

5.1. Horizontal Coordinate system
Projected coordinate system name: Irish Transverse Mercator ITM (IRENET95)

6. Submission of GIS Data

The data is to be submitted on a separate CD-ROM. The CD-ROM should be labelled digitally with the An Coimisiún Pleanála Reference Number, if known OR the An Coimisiún Pleanála Pre-Application Consultation Reference Number if known, Project Title and date of submission in yyyymmdd format.

7. Data Quality

7.1. Topological Rules

The topological rules which apply are as listed below. The data submitted must not violate these topological rules.

The site boundary is to be represented by a polygon. The polygon must not overlap or self-intersect.

7.2. Completeness

All mandatory attributes in the shapefile are to be updated. Please refer to section 8 for the list of mandatory fields.

8. Data Specification

The details of the data to be submitted are as follows:

8.1. Preparation of ESRI Shapefile

The ESRI shapefile should have the following fields;

| Field Name	Data Type	Field Value	Description
FID	Object ID	Default	Object ID automatically created by default.
Shape	Geometry	Polygon	See Notes 1, 2 and 3 on pages 4 and 5.
ACPCASEID	Text	ACP-XXXXXX-25	The An Coimisiún Pleanála Reference Number where known, e.g. **ACP-300001-25**. If the An Coimisiún Pleanála Reference number is unknown, this field is to be left blank and will be completed by An Coimisiún Pleanála.
PREAPPCONS	Text	ACP-XXXXXX-25	The An Coimisiún Pleanála Pre-application Consultation Reference Number e.g. **ACP-300001-25**. This field is to be completed by the applicant where a Pre- application Consultation Reference Number exists.

Notes:

1. Where the application site is contained within a single parcel, the application site boundary should be represented by a polygon outlining the site as seen from an aerial view. The outline should correspond to the outer edge of the application site, as shown on example below by points 1, 2, 3, and 4.

Point 1   Point 2

Point 4   Point 3
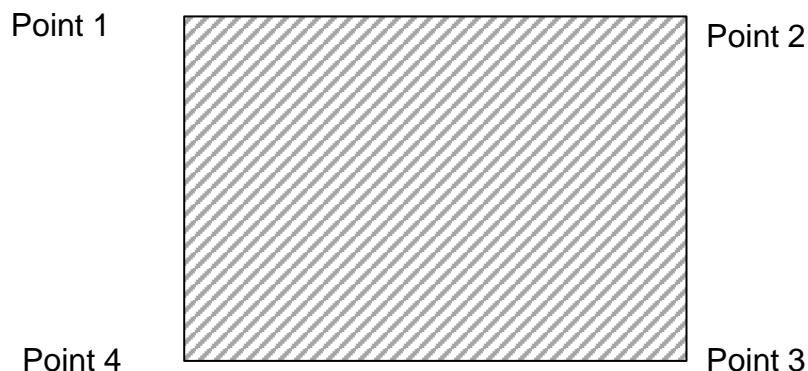
Aerial View of an Application Site Boundary

2. Where the application site is contained within two or more distinct parcels which are not adjoining to each other a multi-part polygon should be used to represent the application site outline. The site outline or boundary should be represented by a single multi-part polygon outlining each of the boundaries of the site as seen from aerial view. The outline should correspond to the outer edge of each parcel which forms a part of the application site, as shown on example below by points 1, 2, 3, 4 represent one parcel and points 5, 6, 7 and 8 representing another parcel.

Point 1   Point 2   Point 5   Point 6

Point 8   Point 7

Point 4   Point 3
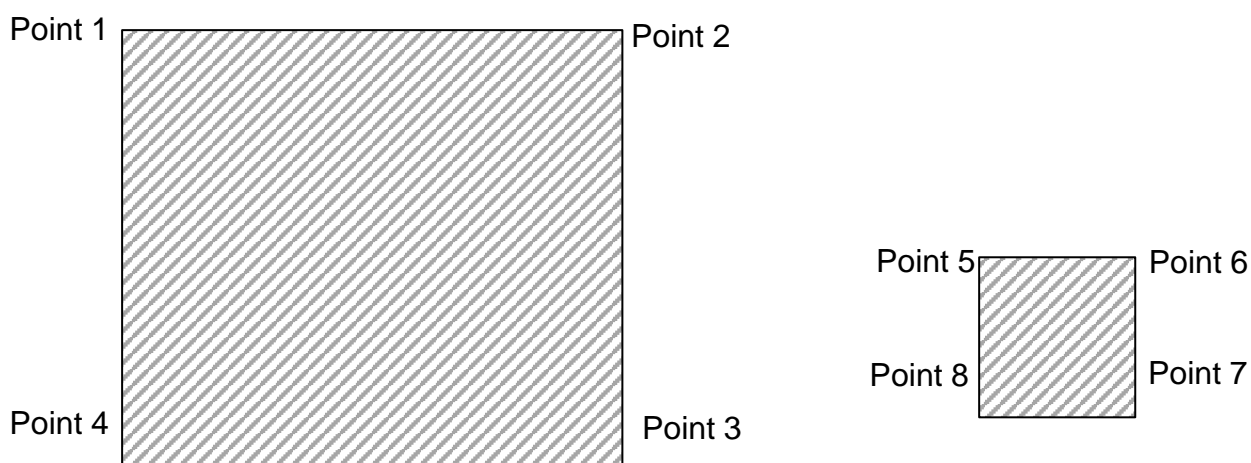
Aerial View of an Application Site Boundary where there are two or more distinct parcels which do not adjoin each other

3. Where the application site surrounds or entirely encloses a parcel of land which is not included in the application the application site should be represented by a donut polygon. The site outline or boundary should be represented by a donut polygon outlining the boundaries of the site as seen from aerial view. The outline should correspond to the outer and inner edges of lands which form a part of the application site, as shown on example below by points 1, 2, 3, 4, 5, 6, 7 and 8.
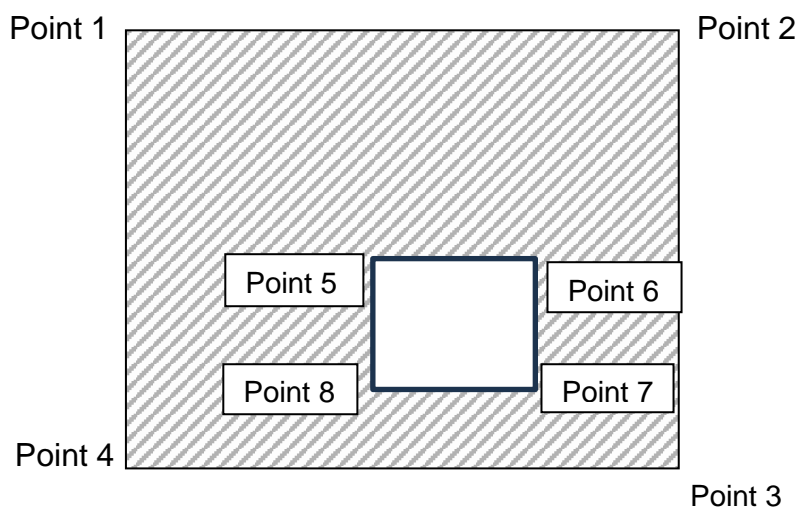
Aerial View of an Application Site Boundary where the site surrounds or encloses a parcel of land which does not form a part of the planning application

Glossary

Attributes – Nonspatial information about a geographic feature in a GIS, usually stored in a table and linked to the feature by a unique identifier. For example, attributes of a river might include its name, length, and sediment load at a gauging station. (http://support.esri.com/en/knowledgebase/Gisdictionary/term/attribute accessed 23/10/15)

ESRI Shapefile – A vector data storage format for storing the location, shape, and attributes of geographic features. A shapefile is stored in a set of related files and contains one feature class. (http://support.esri.com/en/knowledgebase/Gisdictionary/term/shapefile accessed 23/10/15).

Field – An attribute field (or item) are characteristics used to describe each feature in a geographic data set usually viewed as columns in a table. (http://gisgeography.com/gis-dictionary-definition-glossary/#F accessed 23/10/15).

Geographical Information (GI) – is information about places on the Earth's surface, knowledge about where something is, knowledge about what is at a given location (GOODCHILD 1997). (http://stats.oecd.org/glossary/detail.asp?ID=6246 accessed 23/10/15).

Geographical Information Software – The software component of a geographical information system.

Geographical Information System - is an organized collection of computer hardware, software, geographic data, and personnel designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information. (http://www.volusia.org/gis/whatsgis.htm accessed 23/10/15)

Irish Transverse Mercator (ITM) - Irish Transverse Mercator (ITM), is the geographic coordinate system for Ireland. It was implemented jointly by the Ordnance Survey Ireland (OSI) and the Ordnance Survey of Northern Ireland (OSNI) in 2001. The name is derived from the Transverse Mercator projection it uses and the fact that it is optimised for the island of Ireland. (https://en.wikipedia.org/wiki/Irish_Transverse_Mercator accessed 23/10/15)

Polygon - A polygon is a closed, connected set of lines that defines a geographic boundary with an area and perimeter. Examples are lakes, forests and country boundaries. (http://gisgeography.com/gis-dictionary-definition-glossary/#P accessed 23/10/15)

Projected Co-ordinate Reference System - A reference system used to locate x, y, and z positions of point, line, and area features in two or three dimensions. A projected coordinate system is defined by a geographic coordinate system, a map projection, any parameters needed by the map projection, and a linear unit of measure. (http://support.esri.com/en/knowledgebase/GISDictionary/search accessed 23/10/15).

Spatial Data - Information about the locations and shapes of geographic features and the relationships between them, usually stored as coordinates and topology. (http://support.esri.com/en/knowledgebase/GISDictionary/term/spatial%20data accessed 23/10/15).

END.