



# GeoDirectory Technical Guide

**Authors** Dominic Fahey, An Post  
Fred Finch, Ordnance Survey Ireland

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## Table of Contents

1. Introduction.....	3
1.1 GeoDirectory .....	3
1.2 This Document .....	3
1.3 Intended Audience .....	3
1.4 Value Added Re-Sellers .....	3
1.5 Contacting GeoDirectory .....	3
2. Overview of GeoDirectory .....	4
2.1 Sources of Data.....	4
2.1.1. OSi mapping database.....	4
2.1.2. An Post ground validation.....	4
2.1.3. OSi Administrative Boundary database.....	4
2.2 Coverage.....	4
2.3 Quality of Data.....	5
2.3.1 Accuracy .....	5
2.3.2 Consistency.....	6
2.3.3 Completeness .....	6
2.3.4 Currency.....	6
2.4 Maintenance of GeoDirectory.....	6
2.5 Geo Co-ordinates .....	7
2.5.1 Irish Grid.....	7
2.5.2 Irish Transverse Mercator .....	7
3. GeoDirectory Address Model .....	8
3.1 Address Elements .....	8
3.2 Populating the Address Model table.....	9
3.3 Stage 1 – Selecting Candidates .....	10
3.4 Stage 2 – Constructing the Postal Address.....	11
3.5 Address Model Examples.....	13
4. GeoDirectory Database schemas .....	17
4.1 Data diagram.....	17
4.2 Table Descriptions.....	19
4.3 Updates & Deletions.....	20
5. GeoDirectory Products.....	21
5.1 Product Portfolio.....	21
5.2 Detailed Product Descriptions .....	21
5.3 Sub-sets of Data.....	26
5.3.1 Sub-sets by Product.....	26
5.3.2 Sub-sets by Customer Request.....	26
6. Data Formats & Media .....	27
6.1 Product Data Formats .....	27
6.1.1 CSV File.....	27
6.1.2 CSV File Layouts.....	28
6.1.3 XML File Layouts.....	32
6.2 Media .....	33
6.3 Character Formats .....	33
7. Integrating the geodirectory Database .....	34
7.1 Integrating databases without GeoDirectory .....	34
7.2 Integrating Databases with GeoDirectory.....	34
8. How to Manage GeoDirectory Releases .....	35
8.1 Update your database with the changes since the last release.....	35
8.2 Replace with New Release .....	36
8.3 Where to store additional in-house addresses .....	37
8.3.1 Extra Addresses - In transactional database.....	37
8.3.2 Extra Addresses - In GeoDirectory.....	37
8.3.3 Extra Addresses - Address Repository.....	38
9. Appendix A – Legal statement .....	39
10. Appendix b – The Irish Grid .....	40
11. Appendix C – ITM Co-ordinates .....	41
12. Appendix D – Database Column Descriptions .....	42
13. Appendix E – History of Technical Changes .....	48

## 1. INTRODUCTION

### 1.1 *GeoDirectory*

GeoDirectory is a collaboration between An Post and Ordnance Survey Ireland (OSI), the experts in postal and geographic addressing in Ireland.

The purpose of GeoDirectory is to create a definitive reference directory of addresses in Ireland and to assign to them accurate postal and geographic addresses.

A postal address is the address used to enable delivery of mail. GeoDirectory proposes a standard address format, which is intended to become the address format used by organisations and individuals throughout the country. Use of an agreed address format will enable faster delivery of mail and facilitate sharing of data between and within organisations.

A geographic address is a combination of East and North values which accurately position a building on the surface of the Earth. Geographic addresses, also known as geo-codes, are commonly used by Geographic Information Systems (GIS) to position addresses on maps.

For the first time ever, GeoDirectory combines accurate postal and geographic addresses for Ireland in one database and makes this database available to organisations and individuals who require it. It thus provides a basic infrastructure which will become invaluable across all industry sectors.

### 1.2 *This Document*

This is a technical document intended to answer technical questions about the structure of the proposed standard address model, the GeoDirectory database and GeoDirectory products.

GeoDirectory products may be leased either directly from GeoDirectory or through Value Added Re-sellers / Agents. This document describes only those products which are available directly from GeoDirectory.

This document is freely available to anyone who either has leased or is contemplating the leasing of GeoDirectory. An electronic copy of the document can be found on our Web Site and on all GeoDirectory sample CDs or product CDs.

### 1.3 *Intended Audience*

The GeoDirectory Technical Guide has been written for technical users of GeoDirectory, both in end-user organisations and in Value Added Re-seller organisations.

### 1.4 *Value Added Re-Sellers*

A list of current authorised Value Added Re-seller organisations is available by contacting GeoDirectory, or by visiting our web site.

### 1.5 *Contacting GeoDirectory*

GeoDirectory can be contacted by any of the following methods:

<b>Mail:</b>	GeoDirectory GPO, O'Connell St., Dublin 1.	<b>Phone:</b>	(01) 7057005 or from outside Ireland at +353 1 7057005
		<b>Fax:</b>	(01) 7057160 or from outside Ireland at +353 1 7057160
		<b>E-Mail:</b>	<a href="mailto:geodirectory@anpost.ie">geodirectory@anpost.ie</a>
		<b>Web:</b>	<a href="http://www.geodirectory.ie">www.geodirectory.ie</a>

## 2. OVERVIEW OF GEODIRECTORY

The current GeoDirectory products are data-only products, unlike most software products which include user interfaces. This section provides some background information on the GeoDirectory data i.e. where it came from, how it is managed and how data quality is assured.

### 2.1 Sources of Data

The main sources of data for GeoDirectory are:

- OSi Large Scale Map Database.
- OSi Aerial Photography (Ortho-photography).
- An Post ground validation.
- Feedback from internal usage
  - Automated Mail Sorting
  - CRM Systems
  - OSi Ground Surveyors

#### 2.1.1. OSi mapping database.

OSi Large Scale Map Database contains the geographical location of Urban, Sub-urban and Rural buildings. Urban areas which cover all the major towns and cities in Ireland at a scale of 1:1000 are updated annually. Sub-urban areas at a scale of 2,500 are also updated annually. Rural areas at a scale of 2,500 are updated on a 3 year cycle and Rural areas at a scale of 5,000 are updated on a 5 year cycle. Using a semi-automatic data collection process, all buildings are identified and stored in GeoDirectory, using OSi's Geographical Information System (GIS) address software.

#### 2.1.2. An Post ground validation.

Using a Clár (list of all the addresses on a Route), and the OSi Large Scale maps, all Postal Delivery Persons in An Post now maintain GeoDirectory. With the Delivery Person passing each building daily, the data such as change of building use, change of businesses, building no, building names, etc. is confirmed or amended if necessary and additional details may be added. New buildings are added by recording the address on blank forms and marking the position of the building on the map. The details are then fed back into the database to form the basis of the GeoDirectory data products.

#### 2.1.3. OSi Administrative Boundary database

Administrative Boundary attributes (County, ED, and Townland) are automatically added to the database using the OSi administrative boundary database and Geographical Information System's (GIS) software.

GeoDirectory will include the Atomic Area boundary set in the future. This set is a sub-ED level geography, which will have a homogenous design to enable proper and reliable comparable statistical potential.

## 2.2 Coverage

GeoDirectory contains addresses for the Republic of Ireland. The database will never be 100% complete as it is being updated continuously with new addresses, modified addresses, and demolition of existing buildings (the building\_id is retained in case of future development on the site). The total number of valid buildings currently in the database is approx. 1,863000 (July 2009) but is growing daily as new address points are identified. In 2008 we added 42K new buildings which are roughly in line with the Housing build figures from the Department of Environment.

## 2.3 Quality of Data

This section discusses the quality of GeoDirectory data under a number of headings.

### 2.3.1 Accuracy

#### Geo-codes

The purpose of a geocode is to provide a unique geographic reference for each valid building in the Database. A geocode is a set of generated x and y co-ordinates based on either the Irish Grid or Irish Transverse Mercator (ITM) reference systems. There are three distinct methods of collecting the geocodes, each method has its own relative accuracy level and this is indicated by an entry in the 'quality\_control' field on the buildings table. These accuracy levels are as follows:-

#### Accuracy Level 1

Level 1 is based on the position of a building as indicated on the most up-to-date OSi mapping. The geocode should be accurate to within 1 metre of its map position.

#### Accuracy Level 2

Level 2 is based on the position of a building as indicated on OSi ortho-photography. The geocode should be accurate to within 1 metre of its position on the ortho-photograph.

#### Accuracy Level 3

Level 3 is based on the position of a new building as indicated by An Post personnel on the ground, where no building exists on current mapping or ortho-photography. The accuracy level is upgraded when the building is captured on new mapping or new ortho-photography.

#### Note 1:

The geo-code on a GeoDirectory building is only valid if the Verified flag = 'Y' and the Invalid flag = 'N'.

#### Note 2:

OSi are continuously generating new maps. As these new maps become available the geo-codes on buildings which were collected from county series maps are moved to new positions. Where this happens, users of GeoDirectory will receive updated geo-codes for these address points with the next release. Where new addresses are located by An Post and the building is not on an OSi map, then an approximate position will be given.

#### Spelling

Thoroughfare names are entered into GeoDirectory as recorded from the Thoroughfare nameplate. OSi also verifies this spelling with the relevant local authorities for accuracy. Other legal place names and Irish spelling are as determined by OSi.

#### Building Attributes

Building attributes such as building number, name, number of address points etc. are accurate as of the day they were validated on the ground by An Post.

#### Irish Translations

GeoDirectory endeavours to include the official translation of names within the database. To this end a YES/NO flag has been inserted into the 'Irish\_verification' field on any table that contains an Irish translation. This indicates whether or not the translation was verified by the Placenames Branch of the Department of Community, Rural and Gaeltacht Affairs. It is envisaged at this stage to only translate Building Groups, Thoroughfares, Localities, Towns, Post Towns and Counties names.

### 2.3.2 Consistency

The GeoDirectory database is stored centrally, and updated by a dedicated group of trained staff. Procedures are in place to ensure that data entered is checked and double-checked. Stringent database constraints enforce referential integrity throughout the database and QA scripts are run and checked on a regular basis to highlight possible issues with the data.

Rules for creating postal addresses are outlined later in this document. These rules are applied consistently for all addresses in the database.

The quality of data is therefore consistent throughout the database.

### 2.3.3 Completeness

Urban and rural addresses in the Republic of Ireland are included in the database.

### 2.3.4 Currency

Currency is a measure of the real-world change included in GeoDirectory. The database supports the following:

Change Date: The latest date on which one of its attributes has changed.

The change date is applied at record level i.e. for each address point, building, thoroughfare etc. The use of dates is further explained in chapter 4 "GeoDirectory Database Schema".

The GeoDirectory team has endeavoured to ensure that the database content reflects the situation on the ground on the date of validation. We do however welcome all feedback on the quality of the GeoDirectory data.

## 2.4 Maintenance of GeoDirectory

The Delivery Staff in An Post will maintain GeoDirectory. OSi will continuously add new buildings they find during their map revision cycle and will maintain all Administrative Boundaries. This information will be fed into the central database with a GeoDirectory release four times a year.

## 2.5 Geo Co-ordinates

### 2.5.1 Irish Grid

Geographical co-ordinates on Irish Grid are based on a false origin 200 kilometres west and 250 kilometres south of Latitude 8° 00' 00" W and Longitude 53° 30' 00" N, based on the Transverse Mercator Map Projection on the Airy Modified ellipsoid.

Each address is given a geo-code (distance in Eastings and Northings from the false origin) to three decimal places. These can be stripped back to the nearest metre if necessary i.e.

East	North	to	East	North
314654.256	239127.462		314654	239127

Further details on the Irish Grid are given in Appendix B of this document.

### 2.5.2 Irish Transverse Mercator

Since the 1960's, all OSi and OSNI mapping has been based on the local coordinate reference system, the Irish Grid (IG). To maximise the potential for precise positioning offered by new technology, and in particular the Global Positioning System (GPS), the Ordnance Surveys have established a new GPS control network within Ireland (IRENET95), which relates to the European Terrestrial Reference System (ETRS89).

With the increasing use of GPS in the survey and G.I. industries, the Ordnance Surveys have recognised a need to provide mapping that is fully compatible with GPS. This has led to the development of a new coordinate reference system for Ireland, known as ITM (Irish Transverse Mercator). All OSi data is now available in both IG and ITM. In order to meet the needs of the growing numbers of GeoDirectory users who have migrated to ITM, the GeoDirectory product now contains coordinates in both reference systems.

Further details on the Irish Transverse Mercator are given in Appendix C of this document.

### 3. GEODIRECTORY ADDRESS MODEL

The GeoDirectory address model seeks to define the key elements of Irish addresses in order to facilitate a common understanding of what an address is and encourage the use of consistent addressing by any organisation.

There are a number of key benefits in establishing and using a common address model, including:

- Facilitate data sharing between organisations
- Provide a key data set to the geographic information industry
- Improved quality of service for mail delivery

#### 3.1 Address Elements

The elements are as follows

Name	Personal Name	This is a person's name. GeoDirectory does not hold personal names.
	Department	The department or division within an organisation. If the department element exists, then the organisation must also exist
	Organisation	The name or initials of an organisation e.g. An Post.
Premise	Sub Building Name	The sub-building refers to an apartment, flat or unit within a building.
	Building Name	A name given to the building.
	Building Number	<p>A number associated with the whole building, including number ranges e.g. 120-126 and composite numbers e.g. 2A that relate to the whole building and not a sub-unit within it. Examples of numbering system are:</p> <p>The '/' indicates two numbers.  e.g. 63/64 is No. 63 and No. 64.  e.g. 63/65 is No. 63 and No. 65</p> <p>The '_' indicates a range of numbers in a sequence.  e.g. 1_5 is 1,3 and 5  2_6 is 2,4 and 6</p> <p>The '-' indicates a range of consecutive numbers  e.g. 63-66 is 63,64,65 and 66</p>
Building Group	Building Group Name	A building group is a group of two or more buildings with a collective name, located on the same thoroughfare. The buildings in the building group are usually numbered within the building group, not within the thoroughfare. Examples include universities, hospitals, some industrial estates, some terraces, shopping centres, apartment complexes etc.

Thoroughfare	Primary Thoroughfare	The name of the thoroughfare on which the premise is located.
	Secondary Thoroughfare	The name of a thoroughfare which uniquely identifies a primary thoroughfare. This field will be populated where a secondary thoroughfare is essential to distinguish two primary thoroughfares of the same name within the same postal district or town.
Area	Primary Locality	The name of the locality in which the address falls. In urban areas, the primary locality can be required to distinguish between two thoroughfares of the same name in the same district or town. Industrial estates with named thoroughfares are also held as localities. In rural areas the primary locality is generally a townland name.
	Secondary Locality	The name of a locality which serves to differentiate primary localities of the same name within the same post-town area or county. Secondary Locality will generally only be required for rural addresses.
	Post-town	The name of a town or postal district associated with the premise for postal delivery purposes.
	County	The name of the county inside which the Building falls.

### 3.2 Populating the Address Model table

The populating of the Address Model Table is a two part process. First we decide which addresses are candidates for inclusion and populate the first 15 columns of the address model table. Secondly we construct the postal address from these columns and populate Address Lines 1 to 10.

**Note:** The rules for populating the Irish\_Address\_Model table are the same as the Address\_Model table, except that the source will be the Irish\_Name fields and in the event that the Irish translation is not present then we use the English version of the name.

### 3.3 Stage 1 – Selecting Candidates

The address\_model table in the database is populated by copying data from 7 other tables for each address. These 7 tables are:

BUILDINGS  
ADDRESS\_POINTS  
BUILDING\_GROUPS  
THOROUGHFARES  
LOCALITIES  
POST\_TOWNS  
COUNTIES

#### The rules for populating the address\_model table are as follows:

- If a building has 0 residential delivery points and 0 commercial delivery points, then no row is inserted into the address\_model table for that building, as it does not receive mail.
- Buildings with a value of “Y” in the “invalid” field are not copied to the address\_model table.
- If a building has no valid address\_points in the address\_points table then one row is inserted into the address\_model table for that building
- If a building has one valid address\_point in the address\_points table then one row is inserted into the address\_model table for that building
- If a building has more than one valid address\_point in the address\_points table then one row for each address\_point is inserted into the address\_model table
- If a building has an associated building\_group, and that building\_group has a value of “N” in its “thoroughfare\_postally\_required” field, then the thoroughfare field is left blank in the address\_model table.
- If the primary Locality has the post\_town\_required flag set to ‘Y’ then the post\_town name should be included except where :-
  - post\_town name is the same as the Locality name, then the post\_town is left blank in the address\_model table.
  - If the post\_town name is the same as the Secondary Locality name, then the post\_town field is left blank in the address\_model table.
- If the Post Town is in a Dublin Numbered District e.g. “Dublin 1”, and the Post Town Required is set to ‘Y’ or **no locality is used**, then the County field is left blank, else show the County
- If the post\_town name is the same as the County name, then the county field is left blank in the address\_model table.
- If there is no Locality then the post\_town must be included.
- If the post\_town name is the same as the Thoroughfare name, then the thoroughfare field is left blank in the address\_model table.
- If the post\_town name is the same as the Secondary Thoroughfare name, then the secondary\_thoroughfare field is left blank in the address\_model table.
- If the ‘Include\_Org\_name’ flag is set to ‘N’ in the address\_points table then the organisation\_name field is left blank.

The database table, from which each column of the address\_model table is populated, is shown below.

Column in the Address_model Table	Database table from which this column is populated
BUILDING_ID	BUILDINGS
ADDRESS_POINT_ID	ADDRESS_POINTS
PERSONAL_NAME	<b>Not populated</b>
ORGANISATION_NAME	ADDRESS_POINTS
DEPARTMENT	ADDRESS_POINTS
SUB_BUILDING_NAME	ADDRESS_POINTS
BUILDING_NAME	BUILDINGS
BUILDING_NUMBER	BUILDINGS
BUILDING_GROUP_NAME	BUILDING_GROUPS
THOROUGHFARE	THOROUGHFARES
SECONDARY_THOROUGHFARE	THOROUGHFARES
LOCALITY	LOCALITIES
SECONDARY_LOCALITY	LOCALITIES
POST_TOWN	POST_TOWNS
COUNTY	COUNTIES

### 3.4 Stage 2 – Constructing the Postal Address

This section explains the rules for creating Postal Addresses from the Address Model.

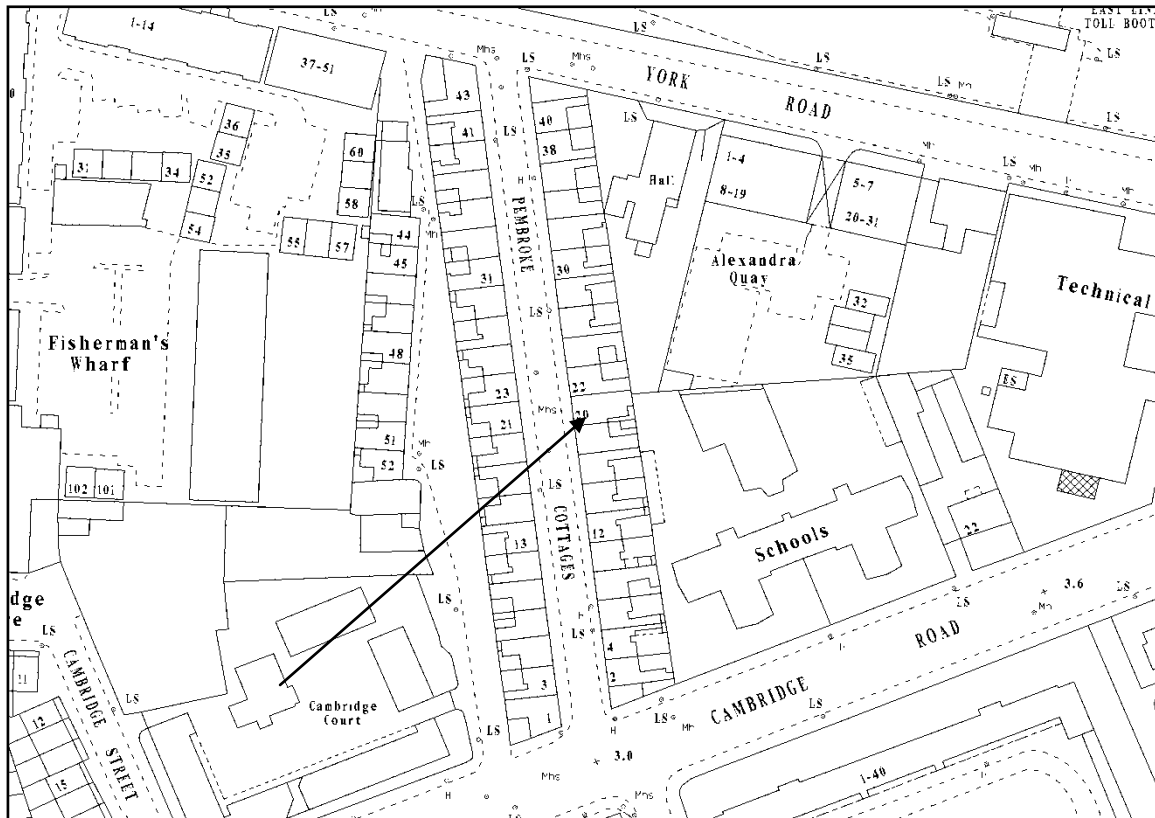
Name Elements	<ul style="list-style-type: none"> <li>➤ Personal names are not included in the GeoDirectory product, but may be included by other organisations.</li> <li>➤ A department name may exist if the organisation name exists.</li> <li>➤ An organisation name may exist for an address.</li> </ul> <p>If any or all of these elements are present, they should appear on separate lines in the above sequence, but in the case of the Organisation name the 'include_org_name' field must also be set to 'Y'.</p>
Sub-Building Name	<ul style="list-style-type: none"> <li>➤ A sub-building name (e.g. "Flat 1", "Apartment 1", "Unit 1" or just "1") may exist.</li> </ul> <p>If it does exist, it should appear next, on a separate line.</p> <p>If there is no building number or name then the sub building name, if it starts with a numeric value e.g. 10A, should appear alongside the building group name. Where there is no building group it should appear alongside the Thoroughfare name. Where there is no Thoroughfare then it appears alongside the Locality name.</p>
Building Name	<ul style="list-style-type: none"> <li>➤ A building name may exist</li> </ul> <p>If it does exist, and there is no sub-building name, it should appear next, on a separate line.</p> <p>If it does exist, and there is a sub-building name, it should appear next, after the sub-building name.</p> <p>If Building Name = Building Group Name then Building Name is not shown.</p>

Building Number	<ul style="list-style-type: none"> <li>➤ A Building Number may exist</li> </ul> <p>The first of Building Group, Thoroughfare, Secondary Thoroughfare, Locality, Secondary Locality that is going to be shown then appears on the same line as the building number, if that exists</p>
Building Group Primary Thoroughfare Secondary Thoroughfare	<ul style="list-style-type: none"> <li>➤ Either a building group or primary thoroughfare or both will be present for urban addresses.</li> <li>➤ A primary thoroughfare may be present for rural addresses.</li> <li>➤ A secondary thoroughfare may be present</li> </ul> <p>Each of these, if they exist, should appear on separate lines.</p> <p>The only exception is that the first one that does exist, should appear on the same line as the building number, if that exists.</p> <p>If Thoroughfare name is the same as Post Town name then it is not shown.</p> <p>If Secondary Thoroughfare name is the same as Post Town name or Thoroughfare name then it is not shown.</p> <p>If a Primary Thoroughfare name does not exist, then the Locality name will exist.</p>
Locality Secondary Locality	<ul style="list-style-type: none"> <li>➤ A locality name may exist</li> <li>➤ Secondary locality may exist</li> </ul> <p>Each of these, if they exist, should appear next, on separate lines.</p> <p>If Locality name is the same as the Secondary Thoroughfare name or Thoroughfare name then it is not shown.</p> <p>If Secondary Locality name is the same as any of Locality name, Secondary Thoroughfare name or Thoroughfare name then it is not shown.</p>
Post Town	<ul style="list-style-type: none"> <li>➤ A Post Town may exist.</li> </ul> <p>If the Post Town does exist, It appears next, on a separate line.</p>
County	<ul style="list-style-type: none"> <li>➤ A County may exist.</li> </ul> <p>If county does exist, it should appear next, on a separate line.</p>



Address Model Element	Example 2
Personal Name	
Department	
Organisation	
Sub Building Name	
Building Name	
Building Number	20
Building Group Name	
Primary Thoroughfare	PEMBROKE COTTAGES
Secondary Thoroughfare	
Primary Locality	RINGSEND
Secondary Locality	
Post-town	DUBLIN 4
County	
Postal Address Line 1	20 PEMBROKE COTTAGES,
Postal Address Line 2	RINGSEND,
Postal Address Line 3	DUBLIN 4.
Postal Address Line 4	
Postal Address Line 5	
Postal Address Line 6	

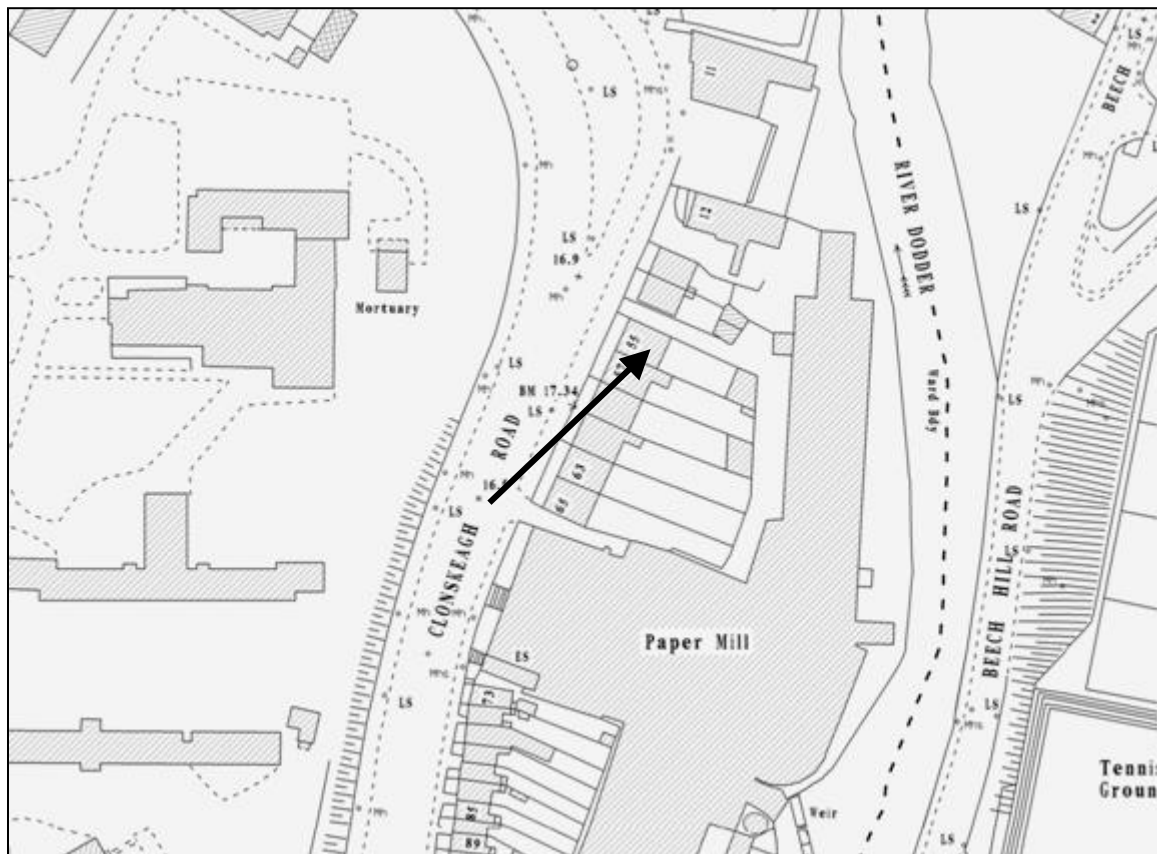
A primary locality of “Ringsend” is required to distinguish between Pembroke Cottages in Ringsend and Pembroke Cottages in Donnybrook, both in Dublin 4.



Address Model Element	Example 3
Personal Name	
Department	
Organisation	
Sub Building Name	
Building Name	
Building Number	55
Building Group Name	CLONSKEAGH TERRACE
Primary Thoroughfare	CLONSKEAGH ROAD
Secondary Thoroughfare	
Primary Locality	
Secondary Locality	
Post-town	DUBLIN 6
County	
Postal Address Line 1	55 CLONSKEAGH TERRACE,
Postal Address Line 2	CLONSKEAGH ROAD,
Postal Address Line 3	DUBLIN 6.
Postal Address Line 4	
Postal Address Line 5	
Postal Address Line 6	

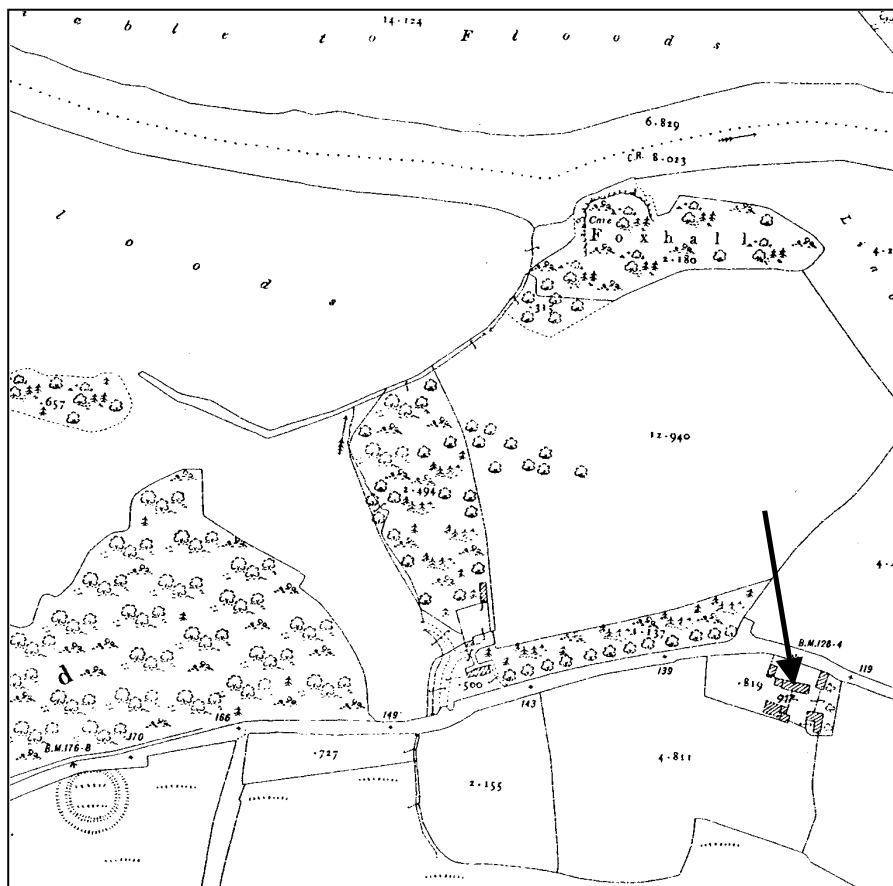
Clonskeagh Terrace is a group of houses which has a name. However it is not a thoroughfare.

It is therefore classified as a building group on Clonskeagh Road thoroughfare. The building group's thoroughfare name is marked as "postally required".



Address Model Element	Example 4
Personal Name	
Department	
Organisation	
Sub Building Name	
Building Name	BLOOMFIELD HOUSE
Building Number	
Building Group Name	
Primary Thoroughfare	
Secondary Thoroughfare	
Primary Locality	BLOOMFIELD
Secondary Locality	BALLYHOOLY
Post-town	
County	CORK
Postal Address Line 1	BLOOMFIELD HOUSE,
Postal Address Line 2	BLOOMFIELD,
Postal Address Line 3	BALLYHOOLY,
Postal Address Line 4	CO. CORK.
Postal Address Line 5	
Postal Address Line 6	

Bloomfield House (Building Name) is in townland Bloomfield (Primary Locality) but a secondary locality of Ballyhooly is postally required. Also in this example the Post Town is not required as the post\_town\_required flag on Bloomfield is set to 'N'



## **4. GEODIRECTORY DATABASE SCHEMAS**

Within An Post / OSi, the GeoDirectory data is stored in a relational database (Oracle). This section describes the structure of this database.

Every table except the address\_model table and the irish\_address\_model tables has a unique id as a primary key. For these two tables the building\_id and the address\_point\_id together form the primary key.

### **4.1 Data diagram**

The data diagram for the database is shown on the next page.



## 4.2 Table Descriptions

This section describes each of the tables in the GeoDirectory product. It describes the structure of the GeoDirectory database as of the current release. This structure may change over time.

A full description of every column in these tables can be found in Appendix D of this document.

Table Name	Description
ADDRESS_MODEL	<p>Within the GeoDirectory database, addresses are stored in a normalised database structure. The result is that the components that make up one address are held in 1 of 7 tables.</p> <p>There is a set of rules, described in section 3, as to how the various components of the address should be brought together to form an address in the standardised address model format.</p> <p>The ADDRESS_MODEL table holds an address for every valid Address Point in the database that receives mail. For each address, the rules have been applied and all the address elements have been brought together into one table.</p>
IRISH_ADDRESS_MODEL	<p>The IRISH_ADDRESS_MODEL table holds the Irish translations of the Names within the database. The same rules apply when creating this table as when creating the ADDRESS_MODEL table except we extract the names from the IRISH_NAME fields within the relevant tables. As we are building the Irish version, some of the translations will not be present and in these cases the English name is used.</p>
BUILDINGS	<p>The BUILDINGS table holds a row for every building in the country that has a postal address. It has grid co-ordinates EAST and NORTH in both Irish Grid and Irish Transverse Mercator with an associated unique id number, and holds the number of commercial and residential delivery points for postal purposes.</p> <p>If a building has 0 residential and 0 commercial delivery points, then this building is one which does not receive any mail. For example, school buildings other than the main building will not normally receive mail. The BUILDING_USE will also be set to (U)known</p> <p>The buildings table has (Y)es / (N)o flags to indicate whether or not it was DERELICT, VACANT or UNDER_CONSTRUCTION on the date it was last validated.</p> <p>As no address database can be 100% correct, it may be necessary in the future to correct errors by removing buildings from the database. Rather than delete building records, however, an INVALID flag on the buildings table will be set to "Y". This will facilitate tracking a building's history, more so than if a building was simply deleted from the database.</p> <p>A BUILDING_USE column indicates whether this building is residential (R), commercial (C), both residential &amp; commercial (B) or unknown (U)</p> <p>A building and its component sub-buildings are considered validated when the building has been validated by An Post and given a valid East/North value by OSi. Only when these conditions are met will the Verified column flag be set to (Y)es.</p> <p>A CREATE_DATE is now included on this table. This refers to the date that the record was first created in the database.</p>

ADDRESS_POINTS	The ADDRESS_POINTS table is used to hold data on businesses or sub-units within a building. Flat, apartment or unit numbers are held in the SUB_BUILDING_NAME column. Business names are held in the ORGANISATION and DEPARTMENT columns.
BUILDING_GROUPS	A building_group is a named group of buildings on one thoroughfare. The THORFARE_POSTALLY_REQ field is a Yes / No field which indicates whether or not a thoroughfare name is required in an address in this building group. For example, Trinity College is a building group which does not require a thoroughfare name as it is postally sufficient to use Trinity College, Dublin 2.
BUILDING_GROUP_TYPES	Building groups can be one of a number of types, including Terrace, Industrial Estate, Shopping Centre, Hospital, etc. For a complete listing please see the Building_Group_Types Table
COUNTIES	One of the 26 counties.
POST_TOWNS	Name of a town designated by An Post as a Post Town or a Dublin postal district.
THOROUGHFARES	The thoroughfare or street on which a building is located. If two thoroughfares with the same name exist in the same post-town, then a secondary thoroughfare or a locality is associated with it, to make it unique.
LOCALITIES	There are a number of uses for the locality table in GeoDirectory including <ol style="list-style-type: none"> <li>1. To make thoroughfares unique as discussed above.</li> <li>2. Industrial Estates which contain named thoroughfares are held as localities.</li> <li>3. The Primary Locality for a Rural Address.</li> <li>4. The Secondary Locality for a Rural Address</li> </ol>
LOCALITY_TYPES	GeoDirectory currently contains six locality types, "INDUSTRIAL ESTATE", "URBAN TOWNLAND", "HOUSING ESTATE", "VILLAGE", "PRIMARY RURAL LOCALITY", "SECONDARY RURAL LOCALITY". Every locality has an associated locality type.
TLANDS	The Townland associated with a building.
EDS	The Electoral Division associated with a building.
POSTAIMS_PRESORT_152	A pre-sort code is a code used by An Post in sorting mail. It will be used by GeoDirectory customers who pre-sort mail before handing it to An Post. This is the 152 level for both Postaim and Presort products.
POSTAIMS_PRESORT_61	Postaim is An Post's bulk addressed publicity post service. A postaim code is associated with each building and is used for pre-sorting postaim material. This is the 61 level for both Postaim and Presort products.
DATA_SOURCES	Source of information, e.g. OSi or An Post.
TOWNS	The Town associated with a Thoroughfare
ORG_CATEGORIES	The NACE codes classification for the Organisation
PUBLICITY_POST_ZONES	The Publicity Post Zone associated with the Building.
BUILDING_TYPES	The Type of Building

### 4.3 Updates & Deletions

When a new row is inserted or a row is updated in any way, the CHANGED\_DATE column is updated to the current date and time.

Rows may be deleted from the BUILDINGS, ADDRESS\_POINTS or THOROUGHFARES tables to allow for redundant data to be removed, but not without consulting with our Users. Normally the INVALID column is set to a value of "Y", so that GeoDirectory customers, who lease updates of the GeoDirectory database, will explicitly be shown that a building which was valid has now been made invalid.

## 5. GEODIRECTORY PRODUCTS

### 5.1 Product Portfolio

There are four GeoDirectory products as shown in the following table:

Product Components	GeoAddress Locator	GeoBusiness Locator	GeoAddress	GeoBusiness
Residential Addresses	√		√	
Business Addresses	√	√	√	√
Geo-codes	√	√		
Business Names	√	√		√

### 5.2 Detailed Product Descriptions

The following table shows which database tables and columns are included in each GeoDirectory product. A full description of every column can be found in Appendix D of this document.

Table Name	Column Name	GeoAddress Locator	GeoBusiness Locator	GeoAddress	GeoBusiness
<b>ADDRESS_MODEL</b>					
	BUILDING_ID	√	√	√	√
	ADDRESS_POINT_ID	√	√	√	√
	PERSONAL_NAME				
	ORGANISATION_NAME	√	√		√
	DEPARTMENT	√	√		√
	SUB_BUILDING_NAME	√	√	√	√
	BUILDING_NAME	√	√	√	√
	BUILDING_NUMBER	√	√	√	√
	BUILDING_GROUP_NAME	√	√	√	√
	THOROUGHFARE	√	√	√	√
	SECONDARY_THOROUGHFARE	√	√	√	√
	LOCALITY	√	√	√	√
	SECONDARY_LOCALITY	√	√	√	√
	POST_TOWN	√	√	√	√
	COUNTY	√	√	√	√
	ADDR_LINE_1	√	√	√	√
	ADDR_LINE_2	√	√	√	√
	ADDR_LINE_3	√	√	√	√
	ADDR_LINE_4	√	√	√	√
	ADDR_LINE_5	√	√	√	√
	ADDR_LINE_6	√	√	√	√
	ADDR_LINE_7	√	√	√	√
	ADDR_LINE_8	√	√	√	√
	ADDR_LINE_9	√	√	√	√
	ADDR_LINE_10	√	√	√	√

Table Name	Column Name	GeoAddress Locator	GeoBusiness Locator	GeoAddress	GeoBusiness
<b>IRISH_ADDRESS_MODEL</b>					
	BUILDING_ID	√	√	√	√
	ADDRESS_POINT_ID	√	√	√	√
	PERSONAL_NAME				
	ORGANISATION_NAME	√	√		√
	DEPARTMENT	√	√		√
	SUB_BUILDING_NAME	√	√	√	√
	BUILDING_NAME	√	√	√	√
	BUILDING_NUMBER	√	√	√	√
	BUILDING_GROUP_NAME	√	√	√	√
	THOROUGHFARE	√	√	√	√
	SECONDARY_THOROUGHFARE	√	√	√	√
	LOCALITY	√	√	√	√
	SECONDARY_LOCALITY	√	√	√	√
	POST_TOWN	√	√	√	√
	COUNTY	√	√	√	√
	ADDR_LINE_1	√	√	√	√
	ADDR_LINE_2	√	√	√	√
	ADDR_LINE_3	√	√	√	√
	ADDR_LINE_4	√	√	√	√
	ADDR_LINE_5	√	√	√	√
	ADDR_LINE_6	√	√	√	√
	ADDR_LINE_7	√	√	√	√
	ADDR_LINE_8	√	√	√	√
	ADDR_LINE_9	√	√	√	√
	ADDR_LINE_10	√	√	√	√
<b>BUILDING_GROUPS</b>					
	GROUP_ID	√	√	√	√
	GROUP_TYPE_ID	√	√	√	√
	THORFARE_ID	√	√	√	√
	NAME	√	√	√	√
	THORFARE_POSTALLY_REQ	√	√	√	√
	CHANGED_DATE	√	√	√	√
	IRISH_NAME	√	√	√	√
	IRISH_VERIFICATION	√	√	√	√
<b>LOCALITIES</b>					
	LOCALITY_ID	√	√	√	√
	LOCALITY_TYPE_ID	√	√	√	√
	COUNTY_ID	√	√	√	√
	NAME	√	√	√	√
	CHANGED_DATE	√	√	√	√
	SECONDARY_LOCALITY_ID	√	√	√	√
	IRISH_NAME	√	√	√	√
	IRISH_VERIFICATION	√	√	√	√
	POST_TOWN_REQUIRED	√	√	√	√

Table Name	Column Name	GeoAddress Locator	GeoBusiness Locator	GeoAddress	GeoBusiness
<b>BUILDINGS</b>					
	BUILDING_ID	√	√	√	√
	DATA_SRC_ID	√	√	√	√
	GROUP_ID	√	√	√	√
	THORFARE_ID	√	√	√	√
	NAME	√	√	√	√
	NO	√	√	√	√
	BUILDING_USE	√	√	√	√
	DERELICT	√	√	√	√
	VACANT	√	√	√	√
	INVALID	√	√	√	√
	UNDER_CONSTRUCTION	√	√	√	√
	RESIDENTIAL_DELIVERY_POINTS	√		√	
	COMMERCIAL_DELIVERY_POINTS	√	√		√
	EAST	√	√		
	NORTH	√	√		
	ITM_EAST	√	√		
	ITM_NORTH	√	√		
	PRESORT_PRESORT_152	√	√	√	√
	POSTAIM_PRESORT_61	√	√	√	√
	ED_ID	√	√		
	COUNTY_ID	√	√	√	√
	POST_TOWN_ID	√	√	√	√
	TLAND_ID	√	√		
	CHANGED_DATE	√	√	√	√
	LOCALITY_ID	√	√	√	√
	SECONDARY_LOCALITY_ID	√	√	√	√
	VERIFIED	√	√	√	√
	QUALITY_CONTROL	√	√		
	DEMOLISHED	√	√	√	√
	HOLIDAY_HOME	√	√	√	√
	PPZ_ID	√	√	√	√
	CREATE_DATE	√	√	√	√
	BUILDING_TYPE_ID	√	√	√	√
	ATOMIC_AREA	√	√	√	√
<b>BUILDING_GROUP_TYPES</b>					
	GROUP_TYPE_ID	√	√	√	√
	NAME	√	√	√	√
<b>COUNTIES</b>					
	COUNTY_ID	√	√	√	√
	NAME	√	√	√	√
	IRISH_NAME	√	√	√	√
	IRISH_VERIFICATION	√	√	√	√
<b>LOCALITY_TYPES</b>					
	LOCALITY_TYPE_ID	√	√	√	√
	NAME	√	√	√	√

Table Name	Column Name	GeoAddress Locator	GeoBusiness Locator	GeoAddress	GeoBusiness
<b>THOROUGHFARES</b>					
	THORFARE_ID	√	√	√	√
	THORFARE_NAME	√	√	√	√
	IRISH_NAME	√	√	√	√
	IRISH_VERIFICATION	√	√	√	√
	QUALIFIER	√	√	√	√
	NAME	√	√	√	√
	GEOGRAPHIC	√	√	√	√
	DESCRIPTOR	√	√	√	√
	MIN_X	√	√		
	MIN_Y	√	√		
	MAX_X	√	√		
	MAX_Y	√	√		
	SECONDARY_THORFARE_ID	√	√	√	√
	INVALID	√	√	√	√
	LOCALITY_ID	√	√	√	√
	CHANGED_DATE	√	√	√	√
	TOWN_ID	√	√	√	√
	ITM_MIN_X	√	√		
	ITM_MIN_Y	√	√		
	ITM_MAX_X	√	√		
	ITM_MAX_Y	√	√		
<b>POSTAIM_PRESORT_61</b>					
	POSTAIM_PRESORT_61	√	√	√	√
	NAME	√	√	√	√
<b>POST_TOWNS</b>					
	POST_TOWN_ID	√	√	√	√
	NAME	√	√	√	√
	COUNTY_ID	√	√	√	√
	IRISH_NAME	√	√	√	√
	IRISH_VERIFICATION	√	√	√	√
<b>ADDRESS_POINTS</b>					
	ADDRESS_POINT_ID	√	√	√	√
	BUILDING_ID	√	√	√	√
	SUB_BUILDING_NAME	√	√	√	√
	ORGANISATION	√	√		√
	DEPARTMENT	√	√		√
	INVALID	√	√	√	√
	VACANT	√	√	√	√
	CHANGED_DATE	√	√	√	√
	INCLUDE_ORG_NAME	√	√	√	√
	ORG_CAT_ID	√	√	√	√

Table Name	Column Name	GeoAddress Locator	GeoBusiness Locator	GeoAddress	GeoBusiness
<b>EDS</b>					
	ED_ID	√	√		
	COUNTY_ID	√	√		
	NAME	√	√		
	ED_UID	√	√		
	CHANGED_DATE	√	√		
<b>TLANDS</b>					
	TLAND_ID	√	√		
	COUNTY_ID	√	√		
	NAME	√	√		
	NAT_TNL_ID	√	√		
	CHANGED_DATE	√	√		
<b>TOWNS</b>					
	TOWN_ID	√	√	√	√
	NAME	√	√	√	√
	COUNTY_ID	√	√	√	√
	IRISH_NAME	√	√	√	√
	IRISH_VERIFICATION	√	√	√	√
<b>POSTAIM_PRESORT_152</b>					
	POSTAIM_PRESORT_152	√	√	√	√
	NAME	√	√	√	√
<b>DATA_SOURCES</b>					
	DATA_SRC_ID	√	√	√	√
	NAME	√	√	√	√
<b>PUBLICITY_POST_ZONES</b>					
	PPZ_ID	√	√	√	√
	NAME	√	√	√	√
<b>ORG_CATEGORIES</b>					
	ORG_CAT_ID	√	√	√	√
	CATEGORY	√	√	√	√
	NACE_CODE	√	√	√	√
<b>BUILDING_TYPES</b>					
	BUILDING_TYPE_ID	√	√	√	√
	NAME	√	√	√	√
	CODE	√	√	√	√

### 5.3 Sub-sets of Data

GeoDirectory holds approx. 1.86 million buildings and is growing daily. This equates to 2.2 million addresses and these addresses can be ordered by sub-set.

#### 5.3.1 Sub-sets by Product

While the "Full GeoDirectory", "Address Directory" products contain all available addresses, the "Business GeoDirectory" and "Business Names" products only contain addresses which have businesses associated with them.

#### 5.3.2 Sub-sets by Customer Request

GeoDirectory customers can request sub-sets of addresses in the following categories

- One, more or all counties
- One, more or all towns / cities
- One, more or all Dublin numbered districts
- One, more or all Local Authorities
- One, more or all Electoral Divisions
- One, more or all Townlands
- Point and Radius
- NACE Code by County or all Counties
  - NACE Code is a pan-European classification system which groups organisations according to their business activities. It assigns a unique 5 or 6 digit code to each industry sector, for example, DA.15.83 – Manufacture of Sugar. This is applied to the Organisation according to GeoDirectory's belief of the principle activity therein.
- Publicity Post Zone
  - "Publicity Post is the delivery of UNADDRESSED mail targeted at a specific area rather than a specific person with delivery zones all over the country. You simply pick the zone or zones that cover the area that you have targeted and your communication is delivered with the ordinary post, unaddressed. Whether you want to reach every house in your local area or every house in the country, Publicity Post can do it"

Each of these criteria can be further restricted by the customer requesting an upper limit on the number of addresses to include. The customer can also request urban or rural or both addresses where relevant i.e. Counties and Local Authorities.

Examples include:

- Galway, Mayo, Sligo
- Dublin County
- 50K addresses in Dublin City
- 2.5K addresses in Dublin 2 and 3.5K addresses in Dublin 4
- Cork city and Kilkenny City
- Carlow Co. Council and Kilkenny Co. Council
- News Agency Activities in County Kildare (NACE Code extract)

When a customer requests a sub-set of addresses, all tables in the data set will be similarly restricted, e.g. the THOROUGHFARES table will only contain thoroughfares for buildings which are in the BUILDINGS table. All other thoroughfares will be excluded.

## 6. 6. DATA FORMATS & MEDIA

### 6.1 Product Data Formats

GeoDirectory data is currently available in four data formats, as shown in the table below.

For each data format, the files are zipped into one self-extracting .EXE file. To un- the files, run the .EXE executable files.

File Type	Unzipped File Extensions	Number of Unzipped Files	Zipped file name
Oracle 9i Export	.DMP	1	ORACLE.EXE
MS Access 2000	.MDB	1	ACCESS2K.EXE
Comma Separated Values	.CSV	19	CSV.EXE
XML Format	.XML	19	XML.EXE

Each ZIP file is password protected

- The Password is Organisation specific.
- The Password it will be re-generated every 6 Months.
- Receive the password by letter two weeks before the CD arrives.

All data formats are available, but Customers are encouraged to specify their preferred option when ordering GeoDirectory products.

#### 6.1.1 CSV File

There is one .CSV file for each table of data.

The first row in the .CSV file contains column names, not data. A comma is used as the field delimiter and a double quote i.e. " is used as the text qualifier. An empty or null alphabetic or alphanumeric value is represented by "". An empty or null numeric or date value is represented by a blank. Dates in the CSV files are of the form DD/MM/YYYY.

An example CSV file is shown below.

```
"COL_1_NUMBER1","COL_2_NUMBER2","COL_3_CHARACTER","COL_4_DATE"
1,,"ABC",12/05/1999
2,,"ABC",
3,,"",12/05/1999
4,,""
5,999999.999,"ABC",12/05/1999
,,,"ABC",12/05/1999
,,,"ABC",
,,,"",12/05/1999
,,,""
,,,""
```

The CSV file names and layouts can be seen on the next page.

## 6.1.2 CSV File Layouts

File Name	Associated Table Name	Position	Column Name	Primary Key
LOCTYPE.CSV	LOCALITY_TYPES	1	LOCALITY_TYPE_ID	√
		2	NAME	
COUNTY.CSV	COUNTIES	1	COUNTY_ID	√
		2	NAME	
		3	IRISH_NAME	
		4	IRISH_VERIFICATION	
POSTTOWN.CSV	POST_TOWNS	1	POST_TOWN_ID	√
		2	COUNTY_ID	
		3	NAME	
		4	IRISH_NAME	
		5	IRISH_VERIFICATION	
PP_152.CSV	POSTAIM_PRESORT_152	1	POSTAIM_PRESORT_152	√
		2	NAME	
PP_61.CSV	POSTAIM_PRESORT_61	1	POSTAIM_PRESORT_61	√
		2	NAME	
TLAND.CSV	TLANDS	1	TLAND_ID	√
		2	COUNTY_ID	
		3	CHANGED_DATE	
		4	NAME	
		5	NAT_TNL_ID	
ED.CSV	EDS	1	ED_ID	√
		2	COUNTY_ID	
		3	CHANGED_DATE	
		4	NAME	
		5	ED_UID	
LOCALITY.CSV	LOCALITIES	1	COUNTY_ID	
		2	LOCALITY_ID	√
		3	LOCALITY_TYPE_ID	
		4	NAME	
		5	CHANGED_DATE	
		6	SECONDARY_LOCALITY_ID	
		7	IRISH_NAME	
		8	IRISH_VERIFICATION	
		9	POST_TOWN_REQUIRED	
DATASRC.CSV	DATA_SOURCES	1	DATA_SRC_ID	√
		2	NAME	
TOWN.CSV	TOWNS	1	TOWN_ID	√
		2	NAME	
		3	COUNTY_ID	
		4	IRISH_NAME	
		5	IRISH_VERIFICATION	

File Name	Associated Table Name	Position	Column Name	Primary Key
THORFARE.CSV	THOROUGHFARES	1	THORFARE_ID	√
		2	CHANGED_DATE	
		3	THORFARE_NAME	
		4	LOCALITY_ID	
		5	QUALIFIER	
		6	MIN_X	
		7	MIN_Y	
		8	MAX_X	
		9	MAX_Y	
		10	ITM_MIN_X	
		11	ITM_MIN_Y	
		12	ITM_MAX_X	
		13	ITM_MAX_Y	
		14	NAME	
		15	GEOGRAPHIC	
		16	DESCRIPTOR	
		17	SECONDARY_THORFARE_ID	
		18	INVALID	
		19	IRISH_NAME	
		20	TOWN_ID	
		21	IRISH_VERIFICATION	
BUILDING.CSV	BUILDINGS	1	BUILDING_ID	√
		2	GROUP_ID	
		3	THORFARE_ID	
		4	POST_TOWN_ID	
		5	DATA_SRC_ID	
		6	CHANGED_DATE	
		7	POSTAIM_PRESORT_61	
		8	POSTAIM_PRESORT_152	
		9	ED_ID	
		10	NAME	
		11	NO	
		12	BUILDING_USE	
		13	DERELICT	
		14	VACANT	
		15	INVALID	
		16	UNDER_CONSTRUCTION	
		17	RESIDENTIAL_DELIVERY_POINTS	
		18	COMMERCIAL_DELIVERY_POINTS	
		19	COUNTY_ID	
		20	TLAND_ID	
		21	EAST	
		22	NORTH	
		23	LOCALITY_ID	
		24	SECONDARY_LOCALITY_ID	
		25	VERIFIED	
		26	ITM_EAST	
		27	ITM_NORTH	
		28	QUALITY_CONTROL	
		29	DEMOLISHED	
		30	HOLIDAY_HOME	
		31	PPZ_ID	
		32	CREATE_DATE	
		33	BUILDING_TYPE_ID	
		34	ATOMIC_AREA	

File Name	Associated Table Name	Position	Column Name	Primary Key
ADDPOINT.CSV	ADDRESS_POINTS	1	ADDRESS_POINT_ID	√
		2	BUILDING_ID	
		3	CHANGED_DATE	
		4	SUB_BUILDING_NAME	
		5	ORGANISATION	
		6	DEPARTMENT	
		7	INVALID	
		8	VACANT	
		9	INCLUDE_ORG_NAME	
		10	ORG_CAT_ID	
ADDMODEL.CSV	ADDRESS_MODEL	1	BUILDING_ID	√
		2	ADDRESS_POINT_ID	√
		3	PERSONAL_NAME	
		4	ORGANISATION_NAME	
		5	DEPARTMENT	
		6	SUB_BUILDING_NAME	
		7	BUILDING_NAME	
		8	BUILDING_NUMBER	
		9	BUILDING_GROUP_NAME	
		10	THOROUGHFARE	
		11	SECONDARY_THOROUGHFARE	
		12	LOCALITY	
		13	SECONDARY_LOCALITY	
		14	POST_TOWN	
		15	COUNTY	
		16	ADDR_LINE_1	
		17	ADDR_LINE_2	
		18	ADDR_LINE_3	
		19	ADDR_LINE_4	
		20	ADDR_LINE_5	
		21	ADDR_LINE_6	
		22	ADDR_LINE_7	
		23	ADDR_LINE_8	
		24	ADDR_LINE_9	
		25	ADDR_LINE_10	
GROUP.CSV	BUILDING_GROUPS	1	GROUP_ID	√
		2	GROUP_TYPE_ID	
		3	THORFARE_ID	
		4	NAME	
		5	IRISH_NAME	
		6	THORFARE_POSTALLY_REQ	
		7	CHANGED_DATE	
		8	IRISH_VERIFICATION	
GRPTYPE.CSV	BUILDING_GROUP_TYPES	1	GROUP_TYPE_ID	√
		2	NAME	

File Name	Associated Table Name	Position	Column Name	Primary Key
IRISHMOD.CSV	IRISH_ADDRESS_MODEL	1	BUILDING_ID	√
		2	ADDRESS_POINT_ID	√
		3	PERSONAL_NAME	
		4	ORGANISATION_NAME	
		5	DEPARTMENT	
		6	SUB_BUILDING_NAME	
		7	BUILDING_NAME	
		8	BUILDING_NUMBER	
		9	BUILDING_GROUP_NAME	
		10	THOROUGHFARE	
		11	SECONDARY_THOROUGHFARE	
		12	LOCALITY	
		13	SECONDARY_LOCALITY	
		14	POST_TOWN	
		15	COUNTY	
		16	ADDR_LINE_1	
		17	ADDR_LINE_2	
		18	ADDR_LINE_3	
		19	ADDR_LINE_4	
		20	ADDR_LINE_5	
		21	ADDR_LINE_6	
		22	ADDR_LINE_7	
		23	ADDR_LINE_8	
		24	ADDR_LINE_9	
		25	ADDR_LINE_10	
PPZ_ZONE.CSV	PUBLICITY_POST_ZONES	1	PPZ_ID	√
		2	NAME	
ORG_CAT.CSV	ORG_CATEGORIES	1	ORG_CAT_ID	√
		2	CATEGORY	
		3	NACE_CODE	
BTYPE.CSV	BUILDING_TYPES	1	BUILDING_TYPE_ID	√
		2	NAME	
		3	CODE	

### 6.1.3 XML File Layouts

Extensible Markup Language (XML) is a method for putting structured data into a text file that follows standard guidelines and can be read by a variety of applications. This document is encoded in ISO-646 (US- ASCII). The character set of XML is Unicode per RIG 3. Characters outside the US-ASCII range are represented with character entities in decimal notation. There is one .XML file for each of the 17 tables of data and this is a sample from the Buildings Table

```

<?xml version="1.0" ?>
- <ROOTDOC>
- <BUILDINGS>
  <building_id>16005888</building_id>
  <group_id />
  <thorfare_id>16006180</thorfare_id>
  <post_town_id>152</post_town_id>
  <data_src_id>1</data_src_id>
  <changed_date>17/02/2005</changed_date>
  <postaim_presort_61>441</postaim_presort_61>
  <postaim_presort_152>441</postaim_presort_152>
  <ed_id>177058</ed_id>
  <name>ELVARD</name>
  <no>13</no>
  <building_use>R</building_use>
  <derelict>N</derelict>
  <vacant>N</vacant>
  <invalid>N</invalid>
  <under_construction>N</under_construction>
  <residential_delivery_points>1</residential_delivery_points>
  <commercial_delivery_points>0</commercial_delivery_points>
  <county_id>18</county_id>
  <tland_id>170381</tland_id>
  <east>267499.771</east>
  <north>334864.024</north>
  <locality_id />
  <secondary_locality_id />
  <verified>Y</verified>
  <itm_east>667436.623</itm_east>
  <itm_north>834868.837</itm_north>
  <quality_control />
  <ppz_id>3745</ppz_id>
  <holiday_home />
  <demolished />
  <create_date>15/10/1998</create_date>
  <building_type_id></ building_type_id>
  < atomic_area></atomic_area >
</BUILDINGS>

```

#### Special Characters

Non US-ASCII characters used are the ISO-1252 / ISO-8859-1 code points for diacritics. Irish characters are stored in the files in the following manor:

Á	&#193	É	&#201	Í	&#205	Ó	&#211
Ú	&#218	&	&amp				

## **6.2 Media**

GeoDirectory products are distributed through our Extranet site located on [www.geodirectory.ie](http://www.geodirectory.ie) . To avail of this facility you should contact GeoDirectory Ltd. and when you sign-up to our T&C's you will be given access to your personal account. This will allow you to download your GeoDirectory updates directly from the site and enables you to:

- View out update cycle including areas completed and the next to be visited.
- A selection of Technical FAQ's that can be used as a point of reference.
- Lodge new queries directly through the site which will be logged and tracked.
- Download an Access viewer.
- Obtain quotes.
- And, because the Electoral District names for OSI and CSO don't match there will be a downloadable table which links the two.
- Receive regular updates on IT projects and their timelines when they are being implemented by GeoDirectory.

## **6.3 Character Formats**

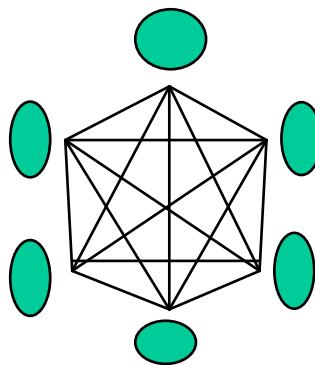
All GeoDirectory data is stored in upper case only.

## 7. INTEGRATING THE GEODIRECTORY DATABASE

GeoDirectory data is an asset which your company is considering or has invested in. Managing the integration and uploading the quarterly releases will have a cost factor, but providing high quality up-to-date Addresses will generate benefits including cost savings and enhance the decision making process. While GeoDirectory Ltd. itself does not support the integration of the GeoDirectory database within your organisation, it is recommended that consideration is given to this process. In this regard any of the GeoDirectory Value Added Resellers should be in a position to propose solutions.

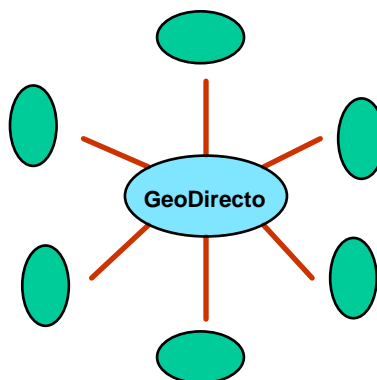
### 7.1 Integrating databases without GeoDirectory

$(n-1) n / 2$  Links  
= Exponential  
Complexity



### 7.2 Integrating Databases with GeoDirectory

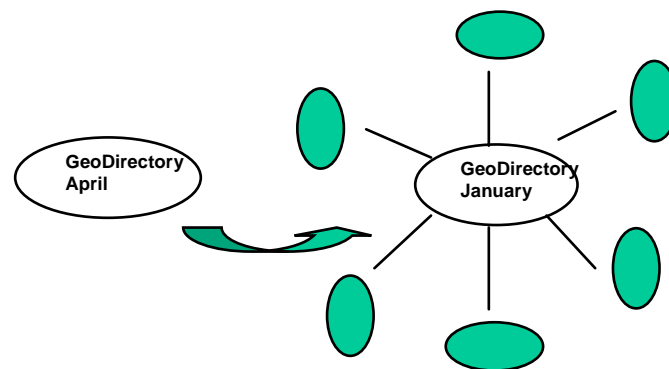
$n$  Links  
= Linear  
Complexity



## 8. HOW TO MANAGE GEODIRECTORY RELEASES

GeoDirectory updates are released four times a year with each customer receiving a completely refreshed supply of the area they ordered. We recommend that a strategy be developed within the organisation on how to handle these releases. We have some examples below, but this in by no means all the options, and it is up to each organisation to develop the solution that suits them best.

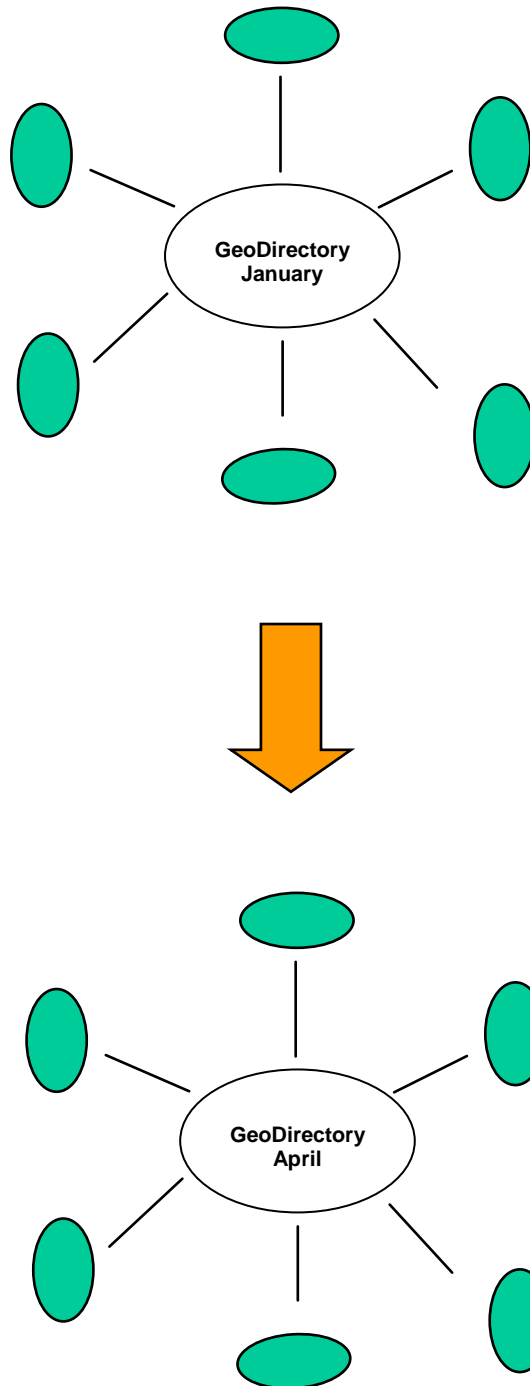
### 8.1 *Update your database with the changes since the last release.*



Each record is time stamped when any field on the record is updated. With this method you can extract only the records that have a time stamp after the last release date and import these.

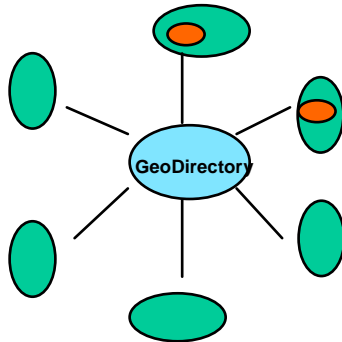
## 8.2 Replace with New Release

With this method you drop your existing version of the database and replace with the new release.



### 8.3 Where to store additional in-house addresses

#### 8.3.1 Extra Addresses - In transactional database



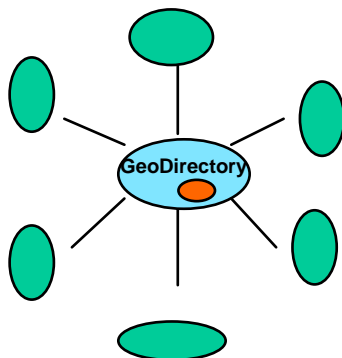
##### Advantages

- Easy Implement

##### Disadvantages

- New addresses not shared
- Addresses Duplicated with different IDs
- More matching required when address appears in GeoDirectory

#### 8.3.2 Extra Addresses - In GeoDirectory



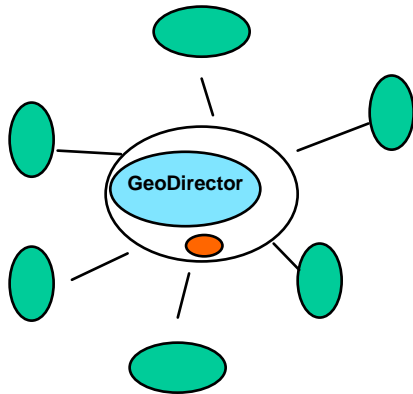
##### Advantages

- Addresses Shared
- Single ID for address
- Less matching required later

##### Disadvantages

- Cannot discard GeoDirectory for new release

### 8.3.3 Extra Addresses - Address Repository



#### Advantages

- Can discard & replace GeoDirectory
- Appears as single address database

#### Disadvantages

- Complex Implementation

## 9. APPENDIX A – LEGAL STATEMENT



# GeoDirectory Legal Statement

The GeoDirectory and the Documentation contain confidential information of An Post GeoDirectory Limited and Ordnance Survey Ireland and all copyright, trade marks and other intellectual property rights including all rights provided for by the Database Directive in the GeoDirectory and the Documentation are the exclusive property of An Post GeoDirectory Limited and Ordnance Survey Ireland.

Use of the GeoDirectory and the Documentation is subject to a separate Licence Agreement and such use must be in accordance with its terms and conditions.

Notwithstanding the Documentation being the exclusive property of An Post GeoDirectory Limited it may be freely distributed though it may not be altered or amended in any way and it may not be supplied for value except by An Post GeoDirectory Limited.

While An Post GeoDirectory Limited employees and agents are authorised to provide assistance by means of the Help Desk facility, any such assistance shall be solely at your risk and An Post GeoDirectory Limited will not be liable for any loss or damage suffered by you arising as a result.

## 10. APPENDIX B – THE IRISH GRID

Geographical co-ordinates on the Irish Grid are based on a false origin 200 kilometres west and 250 kilometres south of Latitude 8° 00' 00" W and Longitude 53° 30' 00" N, based on the Transverse Mercator Map Projection on the Airy Modified ellipsoid.

Each address is given a geo-code (distance in eastings and northings) from the false origin to three decimal places. These can be stripped back to the nearest metre if necessary i.e.

East	North		East	North
314654.256	239127.462	to	314654	239127

### OVERVIEW

<b>National Reference System</b>	Irish Grid
<b>Reference Ellipsoid</b>	Airy Modified
<b>Geodetic Datum</b>	1965 Datum
<b>Vertical Datum</b>	Malin Head
<b>Map Projection</b>	Transverse Mercator
<b>Measurement Unit</b>	International metre

## DEFINITIONS AND PARAMETERS

### Airy Modified Ellipsoid

All geographical co-ordinates, on which the Irish Grid is based, are expressed in terms of the Airy Modified Ellipsoid, as fixed to the 1965 Datum. This ellipsoid is based on the Airy Ellipsoid, defined in feet of bar O<sub>1</sub>, with a semi-major axis (a) of 20,923,713 feet, and eccentricity squared (e<sup>2</sup>) of 0.00667054015. With metrication a conversion factor was agreed between feet of bar O<sup>1</sup> to the International metre of 0.3048007491. The Airy Ellipsoid was reduced by 35 parts per million (ppm) for the Irish reference ellipsoid, resulting in the following, standard parameters:

**semi-major axis (a) :** 6 377 340.189 m

**Eccentricity (e<sup>2</sup>) :** 0.006 670 540 15

### The 1965 Geodetic Datum

The Geodetic Datum of the Irish Grid is a derived one based on the positions of ten OSNI primary triangulation stations to their 1952 adjustment values, and the positions of three OSi primary triangulation stations fixed to their 1965 adjustment values. The 1965 adjustment was a best mean fit to the positions of the Northern Ireland Primary points as adjusted in 1952. The 1952 adjustment was based on the Principal Triangulation positions of three points in Northern Ireland: Knocklayd, Trostan and Divis.

---

<sup>1</sup> a bar of standard length kept by OSi

## 11. APPENDIX C – ITM CO-ORDINATES

ITM is a newly derived GPS compatible mapping projection that is associated with the ETRS89 and the GRS80 ellipsoid. The true origin and central meridian defined in the Irish Grid is maintained, thus distributing the distortions due to the projection evenly.

Consideration was given to the introduction of a scale factor of unity on the central meridian. However, using a scale of 0.99982 results in two standard parallels, and the magnitude and effects of scale change are minimised.

The position of the false origin is moved to a point 600,000m west and 750,000m south of the true origin. This results in grid co-ordinates that are significantly different from IG, but does not introduce additional distortion or complexity. The magnitude of the shift ensures that IG co-ordinates plotted on the ITM projection do not fall on Ireland or Northern Ireland, and vice versa.

Technical Information	
<b>Reference Ellipsoid:</b>	GRS80
<b>Central Meridian:</b>	8° West
<b>Scale on CM:</b>	0.999 820
<b>True Origin:</b>	Latitude ( $\Phi$ ) Longitude ( $\lambda$ )
	53° 30' North 8° 00' West
<b>False Origin (metres):</b>	600 000 W 750 000 S

## 12. APPENDIX D – DATABASE COLUMN DESCRIPTIONS

Table Name And Column Name	Column Size and Column Type	Column Description
<b>ADDRESS_MODEL TABLE</b>		
BUILDING_ID	Number (10)	Populated from BUILDINGS table.
ADDRESS_POINT_ID	Number (10)	Populated from ADDRESS_POINTS table.
PERSONAL_NAME	Character(40)	<i>Not populated.</i>
ORGANISATION_NAME	Character(60)	Populated from ADDRESS_POINTS table.
DEPARTMENT	Character(60)	Populated from ADDRESS_POINTS table.
SUB_BUILDING_NAME	Character(60)	Populated from ADDRESS_POINTS table.
BUILDING_NAME	Character(60)	Populated from BUILDINGS table.
BUILDING_NUMBER	Character(40)	Populated from BUILDINGS table.
BUILDING_GROUP_NAME	Character(60)	Populated from BUILDING_GROUPS table.
THOROUGHFARE	Character(40)	Populated from THOROUGHFARES table.
SECONDARY_THOROUGHFARE	Character(40)	Populated from THOROUGHFARES table.
LOCALITY	Character(40)	Populated from LOCALITIES table.
SECONDARY_LOCALITY	Character(40)	Populated from LOCALITIES table.
POST_TOWN	Character(40)	Populated from POST_TOWNS table.
COUNTY	Character(40)	Populated from COUNTIES table.
ADDR_LINE_1	Character(200)	<i>Fields ADDR_LINE_1 .. ADDR_LINE_10 are populated based on the values in fields ORGANISATION_NAME .. COUNTY.</i>
ADDR_LINE_2	Character(200)	
ADDR_LINE_3	Character(200)	
ADDR_LINE_4	Character(200)	
ADDR_LINE_5	Character(200)	
ADDR_LINE_6	Character(200)	
ADDR_LINE_7	Character(200)	
ADDR_LINE_8	Character(200)	
ADDR_LINE_9	Character(200)	
ADDR_LINE_10	Character(200)	

<b>BUILDINGS TABLE</b>		
BUILDING_ID	Number(10)	Unique 8 digit identification number for the building.
DATA_SRC_ID	Number(10)	Populated from DATA_SOURCES table.
GROUP_ID	Number(10)	Populated from BUILDING_GROUPS table.
THORFARE_ID	Number(10)	Populated from THOROUGHFARES table.
NAME	Character(60)	Name of the building.
NO	Character(40)	The building number.
BUILDING_USE	Character(1)	R- Residential, C- Commercial, B- Both or U- Unknown
DERELICT	Character(1)	A Yes/No field, indicating whether or not the building is derelict.
VACANT	Character(1)	A Yes/No field, indicating whether or not the building is vacant.
INVALID	Character(1)	A Yes/No field, indicating whether or not the building is invalid.
UNDER_CONSTRUCTION	Character(1)	A Yes/No field, indicating whether or not the building is under construction.
RESIDENTIAL_DELIVERY_POINTS	Number(10)	The total number of residential delivery points in the building.
COMMERCIAL_DELIVERY_POINTS	Number(10)	The total number of commercial delivery points in the building. Buildings with 0 residential delivery points and 0 commercial delivery points do not receive mail. For example, they may be school buildings, but not the main building which receives the mail. These buildings are not populated into the address_model table.
EAST	Number(10,3)	Geographical co-ordinate indicating distance in eastings.
NORTH	Number(10,3)	Geographical co-ordinate indicating distance in northings.
POSTAIM_PRESORT_61	Number(10)	Populated from POSTAIM_PRESORT_61 table.
POSTAIM_PRESORT_152	Number(10)	Populated from POSTAIM_PRESORT_152 table.
ED_ID	Number(10)	Populated from EDS table.
COUNTY_ID	Number(10)	Populated from COUNTIES table.
POST_TOWN_ID	Number(10)	Populated from POST_TOWNS table.
TLAND_ID	Number(10)	Populated from TLANDS table.
CHANGED_DATE	Date	Date when this row was last changed.
LOCALITY_ID	Number(10)	Populated from LOCALITIES table.
SECONDARY_LOCALITY_ID	Number(10)	Populated from LOCALITIES table.
VERIFIED	Character(1)	A Yes/No field, indicating whether or not the building has been validated by An Post and assigned a valid GeoCode by OS <i>i</i> .
ITM_EAST	Number	ITM Geographical co-ordinate indicating distance in Eastings.
ITM_NORTH	Number	ITM Geographical co-ordinate indicating distance in Northings.
QUALITY_CONTROL	Character(15)	This is a text string indicating the source and accuracy of the geocoding:  MAP - Where the footprint of the building is located on the large scale map. ORTHO - Where the footprint of the building is located on the Ortho Photograph AN POST - Where An Post believes the location of the building is on the Map.
DEMOLISHED	Character(1)	A Yes/No field, indicating whether or not the building is demolished.
HOLIDAY_HOME	Character(1)	A Yes/No field, indicating whether or not the building is a holiday home.
PPZ_ID	Number(10)	Populated from PUBLICITY_POST_ZONES table.
CREATE_DATE	Date	Date when the record was first inserted into the Database
BUILDING_TYPE_ID	Number(10)	Populated from BUILDING_TYPES table.
ATOMIC_AREA	Character(20)	Name of the Atomic Area (Small Area) that the Building is associated with.

<b>BUILDING_GROUPS TABLE</b>		
GROUP_ID	Number(10)	Unique identification number for the building group.
GROUP_TYPE_ID	Number(10)	Populated from BUILDING_GROUP_TYPES table.
THORFARE_ID	Number(10)	Populated from THOROUGHFARES table.
NAME	Character(60)	Name of the building group.
IRISH_NAME	Character(60)	The Irish Name for the Building Group
THORFARE_POSTALLY_REQ	Character(1)	A Yes/No field, indicating whether or not a thoroughfare is required postally.
CHANGED_DATE	Date	Date when this row was last changed.
IRISH_VERIFICATION	Character(1)	A Yes/No field, indicating whether or not the Irish translation was verified by the Placenames Branch of the Department of Community, Rural and Gaeltacht Affairs.
<b>BUILDING_GROUP_TYPES TABLE</b>		
GROUP_TYPE_ID	Number(10)	Unique identification number for the type of building group.
NAME	Character(40)	Name of the type of building group (Hospital, Terrace, Court, Shopping Centre, etc.).
<b>COUNTIES TABLE</b>		
COUNTY_ID	Number(10)	Unique identification number for the county.
NAME	Character(40)	Name of the county.
IRISH_NAME	Character(20)	Irish Name for the Counties
IRISH_VERIFICATION	Character(1)	A Yes/No field, indicating whether or not the Irish translation was verified by the Placenames Branch of the Department of Community, Rural and Gaeltacht Affairs.
<b>DATA_SOURCES TABLE</b>		
DATA_SRC_ID	Number(10)	Unique identification number for the data source.
NAME	Character(40)	Name of the data source (An Post Inspection, OSi Mapping, etc.).
<b>EDS TABLE</b>		
ED_ID	Number(10)	Unique identification number for the Electoral Division associated with the building.
COUNTY_ID	Number(10)	Populated from COUNTIES table.
NAME	Character(40)	Name of the Electoral Division.
ED_UID	Number(10)	An Id number for ED's agreed between various government bodies.
CHANGED_DATE	Date	Date when this row was last changed.
<b>LOCALITIES TABLE</b>		
LOCALITY_ID	Number(10)	Unique identification number for the locality of the building.
LOCALITY_TYPE_ID	Number(10)	Populated from LOCALITY_TYPES table.
COUNTY_ID	Number(10)	Populated from COUNTIES table.
NAME	Character(40)	Name of the locality.
CHANGED_DATE	Date	Date when this row was last changed.
SECONDARY_LOCALITY_ID	Number(10)	Unique identification number for the Secondary Locality associated with the Primary Locality
IRISH_NAME	Character(60)	Irish Name for the Locality
IRISH_VERIFICATION	Character(1)	A Yes/No field, indicating whether or not the Irish translation was verified by the Placenames Branch of the Department of Community, Rural and Gaeltacht Affairs.
POST_TOWN_REQUIRED	Character(1)	A Yes/No field, indicating whether or not To include the Post Town as part of the address.

<b>LOCALITY_TYPES TABLE</b>		
LOCALITY_TYPE_ID	Number(10)	Unique identification number for the type of locality.
NAME	Character(40)	Name of the type of locality (Industrial Estate, Suburb etc.).
<b>POSTAIM_PRESORT_61 TABLE</b>		
POSTAIM_PRESORT_61	Number(10)	Unique identification number for the postaim / presort code associated with the building.
NAME	Character(100)	The postaim / presort code for the 61 level product.
<b>POST_TOWNS TABLE</b>		
POST_TOWN_ID	Number(10)	Unique identification number for the post town.
NAME	Character(40)	Name of the post town.
COUNTY_ID	Number(10)	Populated from COUNTIES table.
IRISH_NAME	Character(40)	Irish Name for the Post Town
IRISH_VERIFICATION	Character(1)	A Yes/No field, indicating whether or not the Irish translation was verified by the Placenames Branch of the Department of Community, Rural and Gaeltacht Affairs.
<b>POSTAIM_PRESORT_152 TABLE</b>		
POSTAIM_PRESORT_152	Number(10)	Unique identification number for the postaim / presort code associated with the building.
NAME	Character(100)	The postaim / presort code for the 152 level product.
<b>ADDRESS_POINTS TABLE</b>		
ADDRESS_POINT_ID	Number(10)	Unique 8 digit identification number for the sub-building.
BUILDING_ID	Number(10)	Populated from BUILDINGS table.
SUB_BUILDING_NAME	Character(60)	Name of the sub-building e.g. Flat 1, Unit 1, etc.
ORGANISATION	Character(60)	Organisation name.
DEPARTMENT	Character(60)	Department name.
INVALID	Character(1)	A Yes/No field, indicating whether or not the sub-building is invalid.
VACANT	Character(1)	A Yes/No field, indicating whether or not the sub-building is vacant.
CHANGED_DATE	Date	Date when this row was last changed.
INCLUDE_ORG_NAME	Character(1)	A Yes/No field, indicating whether or not to include the Organisation Name when constructing the address in the address model table. In some cases the organisation name does not form part of the Postal Address.
ORG_CAT_ID	Number(10)	Populated from the ORG_CATEGORIES table
<b>TLANDS TABLE</b>		
TLAND_ID	Number(10)	Unique identification number for the townland.
COUNTY_ID	Number(10)	Populated from COUNTIES table.
NAME	Character(80)	Name of the townland.
NAT_TNL_ID	Number(10)	An Id number for Townlands agreed between various government bodies.
CHANGED_DATE	Date	Date when this row was last changed.
<b>TOWNS TABLE</b>		
TOWN_ID	Number(10)	Unique identification number for the Town.
NAME	Character(40)	Name of the Town
COUNTY_ID	Number(10)	Populated from COUNTIES table.

IRISH_NAME	Character(40)	Irish Name for the Town
IRISH_VERIFICATION	Character(1)	A Yes/No field, indicating whether or not the Irish translation was verified by the Placenames Branch of the Department of Community, Rural and Gaeltacht Affairs.
<b>PUBLICITY_POST_ZONES</b>		
PPZ_ID	Number(10)	Unique identification number for the Publicity Post Zone
NAME	Character(60)	Name of the Publicity Post Zone
<b>ORG_CATEGORIES</b>		
ORG_CAT_ID	Number(10)	Unique identification number for the Organisation categories
CATEGORY	Character(200)	The name of the category
NACE_CODE	Character(10)	The NACE code for the Category
<b>THOROUGHFARES TABLE</b>		
THORFARE_ID	Number(10)	Unique identification number for the thoroughfare.
THORFARE_NAME	Character(40)	Name of the thoroughfare.
IRISH_NAME	Character(40)	Irish Name for the Thoroughfare
QUALIFIER	Character(40)	Thoroughfare qualifier (Upper, Lower, Middle, etc.).
NAME	Character(40)	Qualifier name.
GEOGRAPHIC	Character(40)	Geographic location (East, West, North or South).
DESCRIPTOR	Character(40)	Descriptor (Road, Park, Street, etc.).
MIN_X	Number(10,3)	Geographic starting east co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
MIN_Y	Number(10,3)	Geographic starting north co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
MAX_X	Number(10,3)	Geographic ending east co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
MAX_Y	Number(10,3)	Geographic ending north co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
ITM_MIN_X	Number	Geographic starting ITM east co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
ITM_MIN_Y	Number	Geographic starting ITM north co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
ITM_MAX_X	Number	Geographic ending ITM east co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
ITM_MAX_Y	Number	Geographic ending ITM north co-ordinate of the smallest rectangle that can be drawn around the thoroughfare.
SECONDARY_THORFARE_ID	Number(10)	Populated from THOROUGHFARES table.
INVALID	Character(1)	A Yes/No field, indicating whether or not the thoroughfare is invalid.
LOCALITY_ID	Number(10)	Populated from LOCALITIES table.
CHANGED_DATE	Date	Date when this row was last changed.
IRISH_NAME	Character(40)	The Irish Name for the Thoroughfare.
TOWN_ID	Number(10)	The ID for the Town the thoroughfare is associated with.
IRISH_VERIFICATION	Character(1)	A Yes/No field, indicating whether or not the Irish translation was verified by the Placenames Branch of the Department of Community, Rural and Gaeltacht Affairs.
<b>BUILDING_TYPES</b>		
BUILDING_TYPE_ID	Number(10)	Unique identification number for the Building Type
NAME	Character(20)	The name of the Building Type
CODE	Character(2)	The Code or the abbreviation of the Name

<b>IRISH ADDRESS_MODEL TABLE</b>		
BUILDING_ID	Number (10)	Populated from BUILDINGS table.
ADDRESS_POINT_ID	Number (10)	Populated from ADDRESS_POINTS table.
PERSONAL_NAME	Character(40)	<i>Not populated.</i>
ORGANISATION_NAME	Character(60)	Populated from ADDRESS_POINTS table.
DEPARTMENT	Character(60)	Populated from ADDRESS_POINTS table.
SUB_BUILDING_NAME	Character(60)	Populated from ADDRESS_POINTS table.
BUILDING_NAME	Character(60)	Populated from BUILDINGS table.
BUILDING_NUMBER	Character(40)	Populated from BUILDINGS table.
BUILDING_GROUP_NAME	Character(60)	Populated from the 'IRISH_NAME' field in the BUILDING_GROUPS table.
THOROUGHFARE	Character(40)	Populated from the 'IRISH_NAME' field in the THOROUGHFARES table.
SECONDARY_THOROUGHFARE	Character(40)	Populated from the 'IRISH_NAME' field in the THOROUGHFARES table.
LOCALITY	Character(40)	Populated from the 'IRISH_NAME' field in the LOCALITIES table.
SECONDARY_LOCALITY	Character(40)	Populated from the 'IRISH_NAME' field in the LOCALITIES table.
POST_TOWN	Character(40)	Populated from the 'IRISH_NAME' field in the POST_TOWNS table.
COUNTY	Character(40)	Populated from the 'IRISH_NAME' field in the COUNTIES table.
ADDR_LINE_1	Character(200)	<i>Fields ADDR_LINE_1 ... ADDR_LINE_10 are populated based on the values in fields ORGANISATION_NAME ... COUNTY.</i>
ADDR_LINE_2	Character(200)	
ADDR_LINE_3	Character(200)	
ADDR_LINE_4	Character(200)	
ADDR_LINE_5	Character(200)	
ADDR_LINE_6	Character(200)	
ADDR_LINE_7	Character(200)	
ADDR_LINE_8	Character(200)	
ADDR_LINE_9	Character(200)	
ADDR_LINE_10	Character(200)	

### 13. APPENDIX E – HISTORY OF TECHNICAL CHANGES

March 2003	Impact	Column Name	Description
Building Group Table	New Field Added	Irish_Name	Character(60)
Thoroughfares Table	Four New Fields Added	ITM_MIN_X	NUMBER
		ITM_MIN_Y	NUMBER
		ITM_MAX_X	NUMBER
		ITM_MAX_Y	NUMBER
Building Table	A new building classification of 'U' for unknown.	Building_Use	

July 2004	Impact	Column Name	Description
Building Table	New Field Added	Quality_Control	Character(15)

July 2005	Impact	Column Name	Description
Address Points Table	New Field Added	Include_Org_Name	Character(1)
Building Table	New Field Added	Create_Date	Date
Building Groups Table	New Field Added	Irish_Name	Character(60)
		Irish_verification	Character(1)
Localities	New Field Added	Irish_Name	Character(60)
		Irish_verification	Character(1)
Towns	New Field Added	Irish_Name	Character(60)
		Irish_verification	Character(1)
Post Towns	New Field Added	Irish_Name	Character(60)
		Irish_verification	Character(1)
Counties	New Field Added	Irish_Name	Character(60)
		Irish_verification	Character(1)
Irish Address Model Table	New Table		

July 2007	Impact	Column Name	Description
Buildings table	Extend the size of a Field	Name	Character(60)
Address Points Table	Extend the size of a Field	Sub_Building_Name	Character(60)
		Department	Character(60)
Address Model Table	Extend the size of a Field	Sub_Building_Name	Character(60)
		Department	Character(60)
		Building_Name	Character(60)
Irish Address Model table	Extend the size of a Field	Sub_Building_Name	Character(60)
		Department	Character(60)
		Building_Name	Character(60)

<b>April 2008</b>	<b>Impact</b>	<b>Column Name</b>	<b>Description</b>
<b>Publicity Post Zones</b>	New column on the Buildings Table	PPZ_ID	NUMBER (10)
	New Table called PUBLICITY_POST_ZONES	PPZ_ID	NUMBER(10)
		NAME	Character(60)
<b>NACE CODES</b>	New Column on the Address Points table.	ORG_CAT_ID	NUMBER (10)
	New Table called ORG_CATEGORIES	ORG_CAT_ID	NUMBER (10)
		CATEGORY	Character(200)
		NACE_CODE	Character(10)
<b>Holiday Homes</b>	New column on the Buildings Table	HOLIDAY_HOME	Character(1)
<b>Demolished</b>	New column on the Buildings Table called	DEMOLISHED	Character(1)
<b>Irish &amp; English Address Model Tables</b>	Extend the length of some Fields.	Addr_line_1 Addr_line_2 Addr_line_3 Addr_line_4 Addr_line_5 Addr_line_6 Addr_line_7 Addr_line_8 Addr_line_9 Addr_line_10	Character(200)

<b>October 2008</b>	<b>Impact</b>	<b>Column Name</b>	<b>Description</b>
<b>Password on the ZIP files</b>	You will need to know your password to unzip the data files.		
<b>Building Types</b>	New Field on the Buildings Table.	BUILDING_TYPE_ID	NUMBER(10)
	New Table Called Building_Types	BUILDING_TYPE_ID	NUMBER(10)
		NAME	Character(20)
		CODE	Character(2)
<b>Atomic Areas</b>	New Field on the Buildings Table.	ATOMIC_AREA	Character(20)

<b>July 2009</b>	<b>Impact</b>	<b>Column Name</b>	<b>Description</b>
<b>Post Town Required Flag.</b> When creating the address from the normalised tables you need to reference this Y/N flag on the Localities table (all except Secondary Localities) to establish if the Post Town is required as part of the commonly used postal address.	<ol style="list-style-type: none"> <li>1. New Rules when creating the Address.</li> <li>2. New Field on the Localities Table</li> </ol>	<b>POST_TOWN_REQUIRED</b>	Character(1)
<b>Remove Invalid Records</b>	invalid records were removed from 3 tables:- <ol style="list-style-type: none"> <li>1. Buildings</li> <li>2. Address Points</li> <li>3. Thoroughfares</li> </ol>		