Information Note Postcodes

2023
National Records of Scotland (NRS)

Contents

History of Digitising Postcodes in Scotland

National Records of Scotland (NRS) Geography first began plotting postcode boundaries in 1973. The Post Office (as it was at that time) assigned addresses to postcodes and NRS Geography staff manually traced the boundaries around the addresses using Ordnance Survey (OS) 1:10,000 and 1:50,000 maps to reference the boundary lines.

The postcode boundary dataset represents the smallest plotted unit in Scotland. As a result, it is possible to assign any Scottish postcode to any entity (area) within a Scottish boundary dataset.

In 1973 the process of assigning postcodes to these 'higher geographies' was entirely manual (for example, using romers to establish National Grid coordinates) and the individual postcodes were assigned to approximately fifteen types of area, e.g., council areas, health boards, electoral wards.

The ability to assign postcodes to these 'higher geographies' represented a significant step in being able to create and interpret statistics about locations and areas.

In the late 1980s NRS Geography replaced the manual tracing methods with the introduction of the Geographic Information System, 'GenaMap'. In addition to providing the ability to produce digital boundaries, the system also automated the process of assigning postcodes to the 'higher geographies'. The GenaMap system used the OS 1:10,000 raster maps as the background for the digitising of the postcode boundaries.

In 2006 GenaMap was replaced by ESRI's ArcGIS product. Since the introduction of ArcGIS, NRS Geography utilises Ordnance Survey's MasterMap® as the base map for positioning the postcode boundaries.
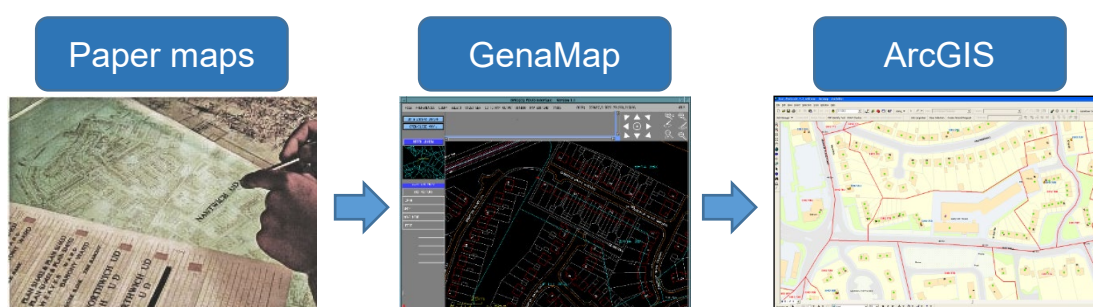
Origin of Postcodes

First introduced by the Royal Mail (then called the GPO - General Post Office), UK postcodes were created for several reasons.

They were primarily introduced to help sorting offices categorise the postal mail, however they were also helpful for aggregating census statistics, and for designating coordinates for route planning devices.

In 1959 the Postmaster General, Ernest Marples, first trialled the 6-digit postal code (of the type we know today) in Norwich. This was followed by other trials throughout the 1960s, which resulted in a gradual, nationwide rollout of postal codes that was finally completed in 1974.

When originally created, the Postcode was 'designed' around the capability of Royal Mails' sorting equipment to read and interpret typed or handwritten text on mail. Therefore, Royal Mail prefers the postcode to be separate and on the last line of an address.

The responsibility for the allocation of a postcode falls to Royal Mail. However, they will not issue a postcode for a new street unless requested to do so by the Council.

Postcode Address File (PAF®)

The Postal Address File (PAF®) is a database of all known addresses and postcodes in the United Kingdom.

There are over twenty-nine million postal addresses and 1.8 million postcodes currently on PAF® (based on Edition 7.6 of the Programmers Guide).

Royal Mail Group Ltd owns and maintains PAF® data and is made available to external organisations via third party suppliers. More information on the range of products and services is available on www.poweredbypaf.com.
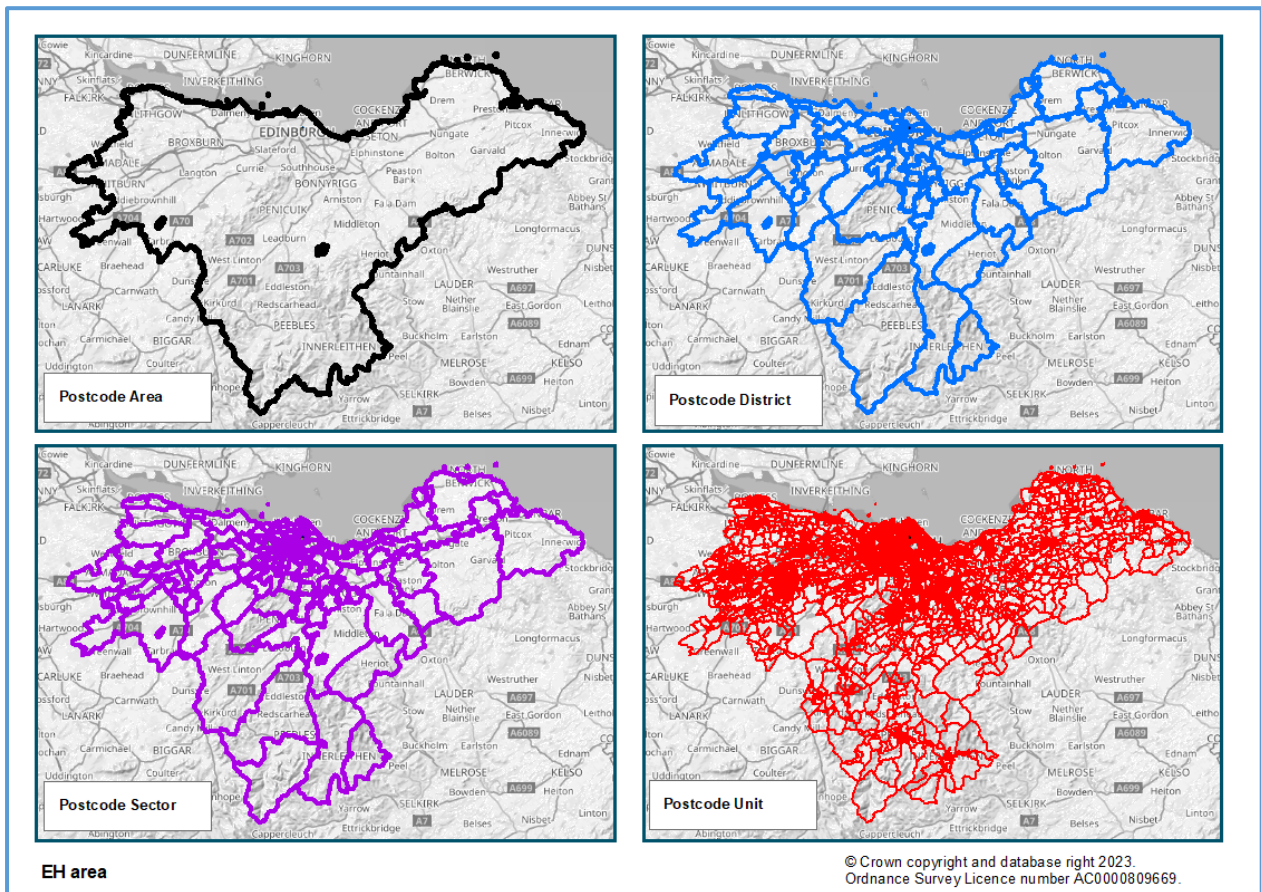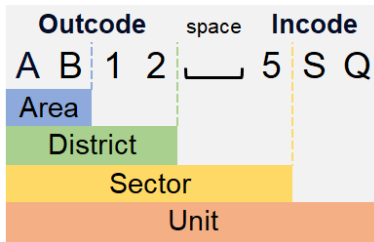
Postcode Structure

A full postcode is known as a 'postcode unit' and designates an area with a number of addresses or a single major delivery point.

Postcodes are alphanumeric references comprising an outward code of two to four characters and an inward code of three characters.

The postcode is structured hierarchically, supporting four levels of geographic unit (Area, District, Sector, and Unit).

Postcode Format

EH area

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Postcode recoding

Wherever possible Royal Mail try not to change addresses and postcodes. Changes are however sometimes necessary to ensure that mail is delivered as quickly and efficiently as possible. It is also possible for a council to prompt change by re-numbering buildings or re-naming roads.

Further information on the process for postcode re-coding is available in the PAF Code of Practice on the Royal Mail website.

Updates on recodes are available on the Powered by PAF website.

Postcode re-use

Royal Mail deletes postcodes for several reasons but most commonly, it is due to the demolition/re-development of buildings or to postcode re-use.

Deleted postcodes are occasionally re-used by Royal Mail but not usually before an elapsed period of two or three years. When a postcode is re-introduced, it will not necessarily contain the same addresses or cover the same area as the original postcode.

Postcode Types

There are two types of postcode, small user, and large user.

Small User Postcodes

Identifies either an individual address or a group of delivery points within a thoroughfare of locality. The minimum number of delivery points on a postcode is one, the average is fifteen, and the maximum is ninety-nine.

Postcode boundaries are subject to continuous change due to new addresses, single addresses acquiring large user postcodes as mail volume increases, and the need to restrict the number of addresses per unit to less than one hundred.

NRS Geography creates and maintains a digital boundary for every live small user postcode so that the entire land surface of Scotland is covered by postcode polygons, as shown in the example below.
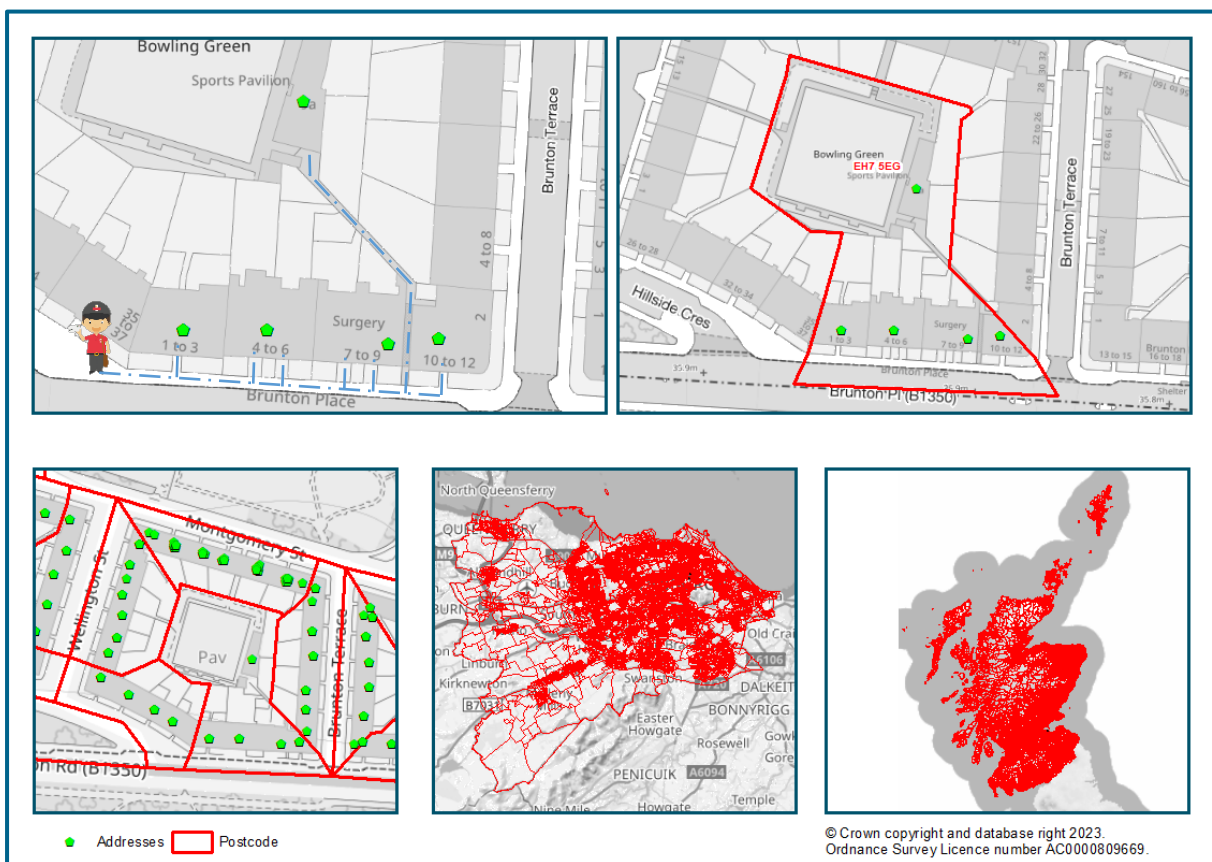
Large User Postcodes

Are allocated to single addresses receiving at least 1,000 mail items per day (e.g., business addresses).

PO Box addresses do not have a specific geographic location; instead, the mail is sent to a local delivery office, from where it can be forwarded to the real address or collected by the addressee. All PO Box addresses are classed as 'Large User' postcodes.

NRS Geography do not create boundaries for large user postcodes. A large user postcode that has been linked to a small user takes on the higher area attributes of that small user postcode.
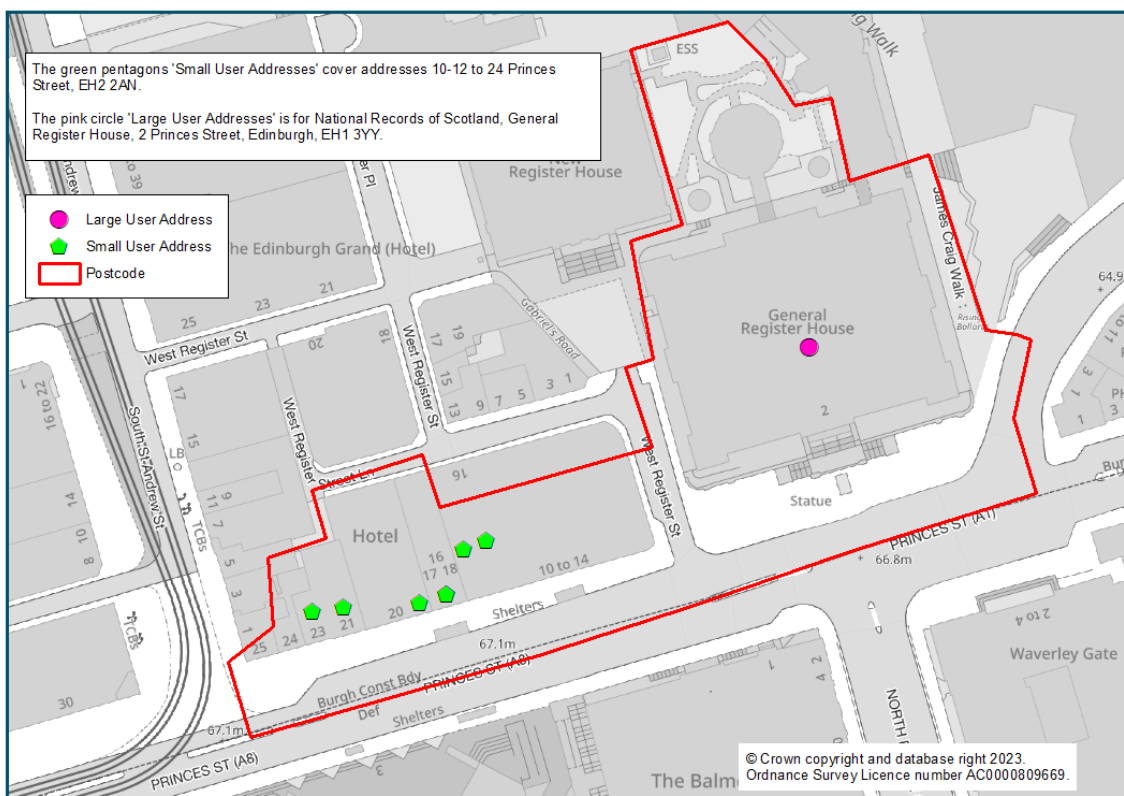
NRS usage of PAF®

NRS Postcode boundaries are based on the PAF® received from Royal Mail®. This data is provided to us on a quarterly basis.

The files provide details of new and deleted postcodes.

New Postcodes

New postcodes are assigned to groups of new addresses. For example, houses in a new building development will be assigned a completely new postcode.

Step 1

Once Royal Mail® allocate a postcode to a new development we utilise the One Scotland Gazetteer website to gain location information for the new postcode.

Step 2

Once we have this information, we locate the area on our postcode dataset and draw in the new postcode boundary. We then assign a grid reference point.
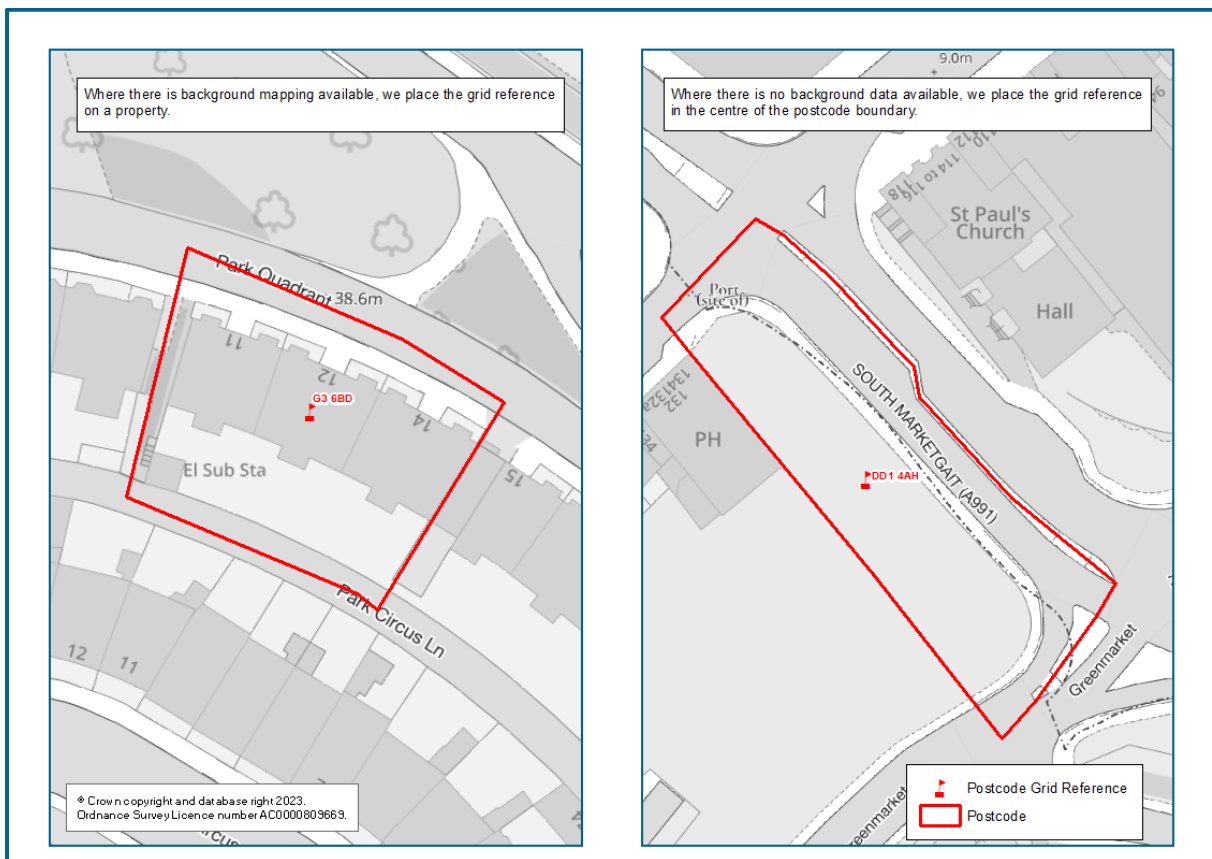
Deleted Postcodes

Deleted postcodes where there are no longer any addresses. For example, there may be a programme of housing demolition which will result in there being no addresses remaining for that particular postcode.

NRS Geography delete the postcode from the postcode dataset by merging the boundary with a neighbouring postcode.

The deleted postcode's grid reference is transferred to our Deleted Postcode Dataset. In this Deleted Postcode Dataset, the postcodes are represented by points and not polygons – the representative point is the grid reference of the postcode when it was 'live'.
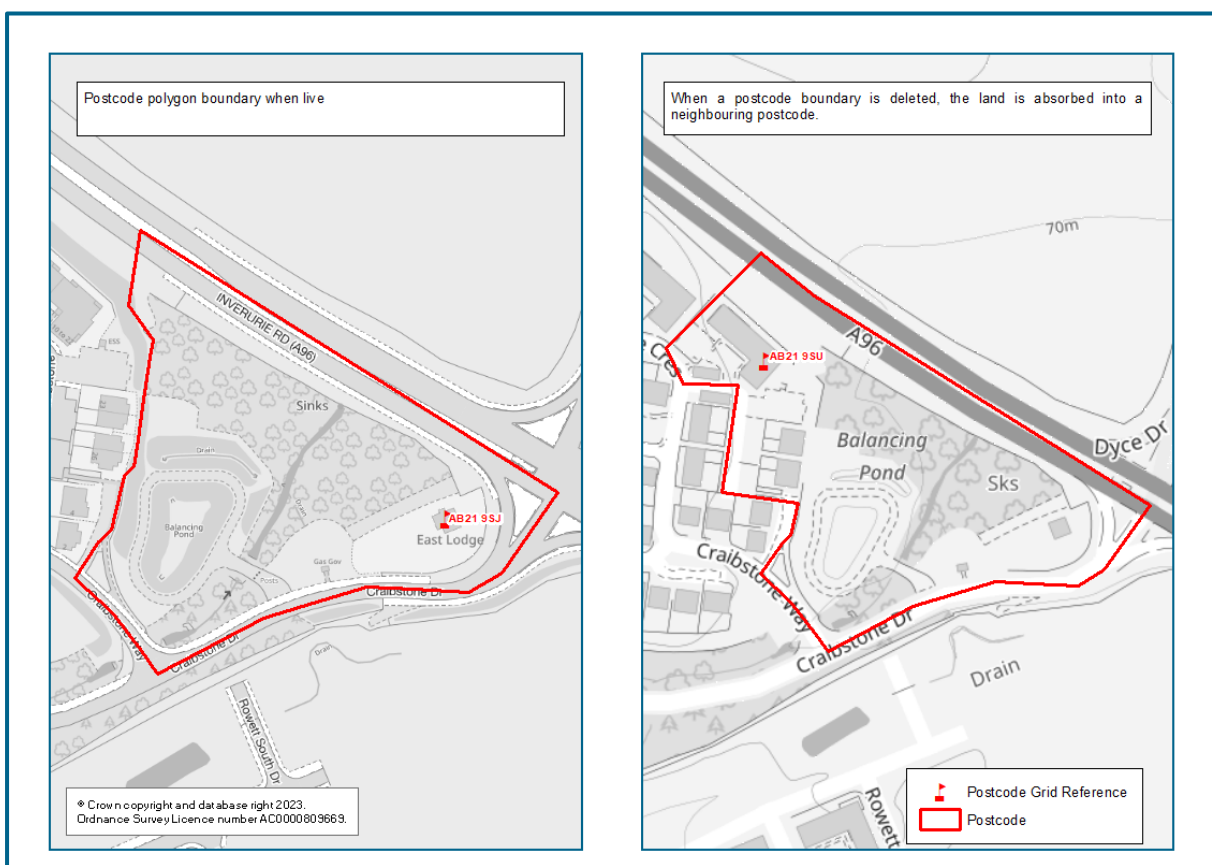
Constant improvement of postcode boundaries

NRS Geography IT staff have developed a system which compares our boundary data against our Scottish Address Directory and reports any discrepancies.

We then investigate these discrepancies and correct our boundaries where possible and if necessary, report back any errors to One Scotland Gazetteer, Ordnance Survey, and Royal Mail® respectively.
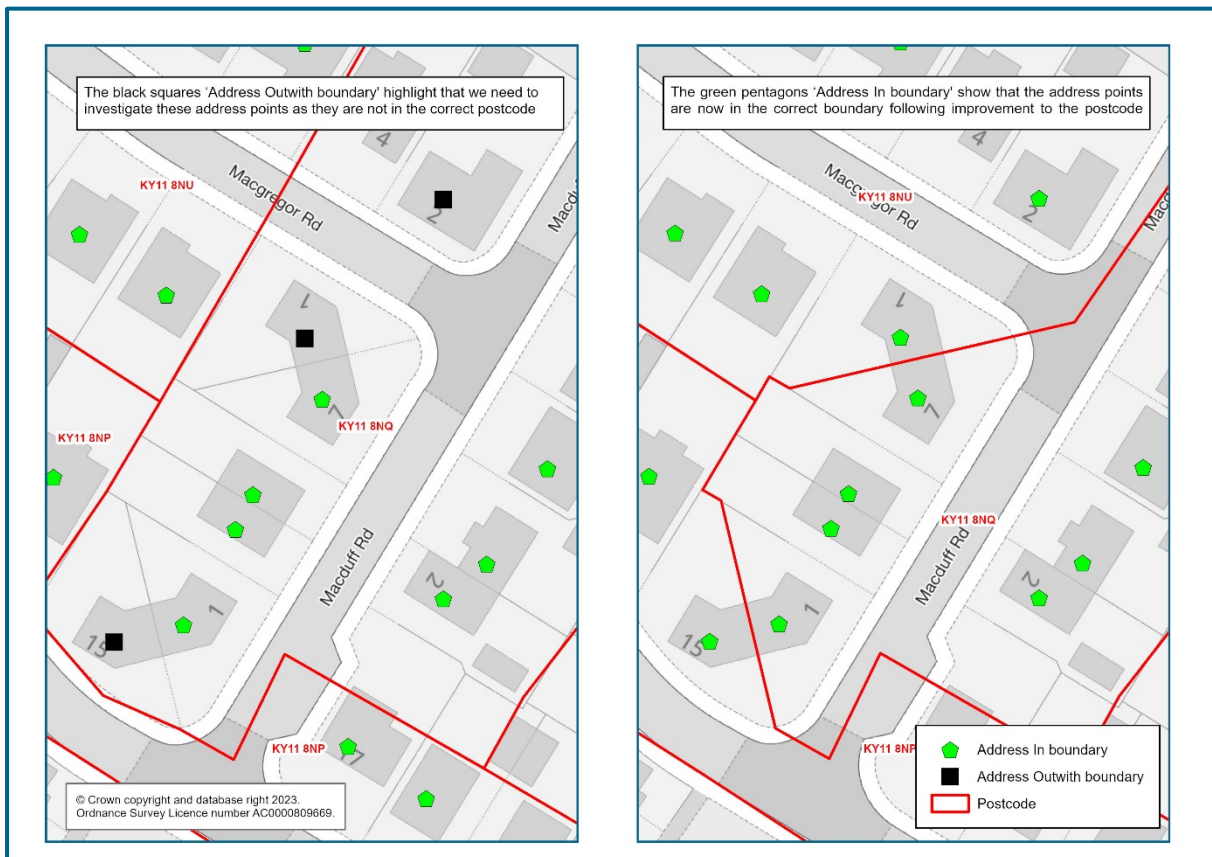
More information on how NRS Geography digitise postcodes can be found in the Geography Policy section of the website.