

Brownfield Potential Study

Aberdeen Local Development Plan
Proposed Plan 2014

i. Executive Summary

- This study demonstrates the potential for brownfield (previously developed) sites in Aberdeen to accommodate new residential development.
- It shows our progress in meeting the brownfield housing requirements set for us at a regional level by the Strategic Development Plan (SDP), to be met between 2011-2026.
- This study demonstrates that, from 2011, we have identified enough brownfield land to accommodate between 7287 units (the highest estimate) and 5398 units (the lowest estimate).
- The results show that while we are able to identify a significant amount of brownfield land suitable for residential redevelopment, we are still short of meeting the full SDP requirement up to 2026.
- The future availability of brownfield sites is difficult to predict. Based on the rate at which brownfield land has come forward in the last 3 years, it is very likely that enough land will come forward in the coming years to enable us to meet our full requirement to 2026.
- A glossary of terms (in bold) is provided on page 16.

1. Introduction

1.1 Brownfield Land in Scotland

Brownfield land is land that has previously been developed and now lies vacant or derelict. Most of Scotland's brownfield land lies in and around its cities.

The Scottish Government recognises that planning has an important role to play in identifying new and beneficial uses for previously used land. The Aberdeen Local Development Plan (LDP) promotes the principle of brownfield redevelopment to help regenerate communities and make the most efficient use of our existing land and infrastructure.

1.2 What is the Brownfield Potential Study?

The Brownfield Potential Study (BPS) is concerned with residential development. It identifies brownfield sites which would be suitable for housing and provides an estimation of how many units each site could accommodate. The study helps to identify likely development opportunities and shows what progress has already been made towards meeting the brownfield housing targets set out in the Aberdeen City and Shire Strategic Development Plan (SDP) 2014.

1.2 Strategic Development Plan Housing Allowances

The SDP requires the Local Development Plan to identify enough land that can be developed for housing to meet Aberdeen's needs. It sets a requirement to identify enough brownfield land for 7,500 houses between 2011 and 2026 (Fig. 1).

As of 2014, there is no longer the requirement to identify 500 separate units within **Regeneration Areas**. These 500 units now count as part of the overall brownfield requirement to be accommodated anywhere in the city.

Housing Allowance Area	Effective Supply 2011	Constrained Supply 2011	Existing LDP allocations to 2016	2017-2026	2026-2035	Total
Aberdeen City Brownfield and Regeneration Areas	1,188	1,244	4,500	3,000	3,000	10,500

Fig. 1 Housing Allowances in the Strategic Development Plan 2013

Because we are seeking to meet the SDP requirements from 2011 onwards, we are not able to count those sites that had come forward prior to 2011, and thus appeared in the 2011 Housing Land Audit or earlier (covering the year up to January 1st 2011). However, we are able to count sites which have come forward since 2011 towards the SDP requirements.

1.3 Sites included in the Study

The sites included within this study fall into two groups:

1. Future Potential

The sites included in the first group represent future opportunities where housing development is considered acceptable in principle. These sites are not currently intended for a non-residential use either through planning permission or an allocation in the LDP.

2. Established Potential

The brownfield sites in this group have an extant planning permission, are under construction, or have been completed as of 31st August 2014 (but have all come forward post-2011) In this sense, there is a historical element to this group, which is necessary help us identify all of the sites which can which can count towards the SDP housing requirements from 2011. We have counted the number of units for which the site has permission.

The SDP requirements do not specify how much of the brownfield requirement has to be **effective**. For this reason, no discounting of **non-effective** sites has been done and the study contains a mix of effective and non-effective sites.

A full list of all the sites included can be found in the appendices.

1.4 Preparation of the Study

The status of all brownfield sites in Aberdeen is kept up to date throughout the year by regular monitoring. The BPS is also closely related to the Housing Land Audit (HLA). The Brownfield record is checked to ensure consistency with the HLA in terms of completions and any new sites that have come forward during the year.

1.5 Base Date

The BPS has been revised to provide an accurate assessment of brownfield housing capacity to inform the Proposed Plan, presented to committee in October 2014 and published for consultation in early 2015. Therefore, we have taken a base date of 31 August 2014 to ensure it is as accurate and up-to-date as possible.

2. Trends in Brownfield Development in Aberdeen

2.1 Figure 2 shows the number of housing completions on brownfield land in Aberdeen over a 20 year period from 1993-2013. Brownfield housing completion rates in Aberdeen have been generally high, with an average of 688 units per year being completed between 1993 and 2013. In 2008 the economic recession resulted in a dramatic decline in brownfield housing development across the UK, which was reflected in Aberdeen with completions dropping to a 20 year low in 2009.

Encouragingly, the figures for 2013 show a continued recovery and a small increase on 2012's figures. Brownfield completions in Aberdeen have now increased for four consecutive years. Despite these trends, figures for planning consents are typically much higher than actual completions, particularly since the recession, which suggests that although brownfield sites are often desirable for residential development, there may be additional constraints on their redevelopment.

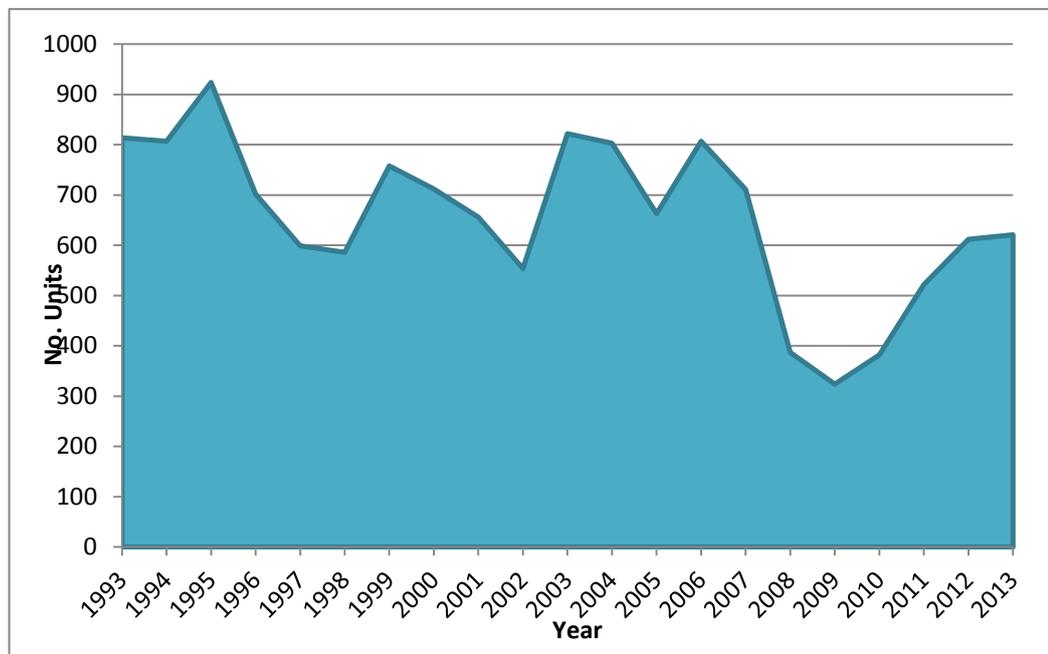


Fig. 2 Brownfield Housing Completions 1992-2012

2.2 Brownfield and Greenfield Completions

The proportion of brownfield to **greenfield** completions (Fig. 3 and Fig. 4) has also been steadily rising during this period - in 2008 and 2009 for example, there were no greenfield completions at all. This trend is likely due to the fact that all of the greenfield sites allocated for housing in the 1991 Local Plan have gradually been developed, and only a limited number of greenfield sites were allocated within the 2008 Local Plan.

These trends are already beginning to change with greenfield completions beginning to rise. We expect them to increase substantially in the years to come given that the Aberdeen Local Development Plan (adopted in February 2012) has

allocated significant new areas of greenfield land for housing, much of it to be released from the Green Belt. The rise in figures for 2013 may reflect the fact that construction is now well underway on many of these sites, some of which have already started to deliver their first housing units.

Year	Brownfield	Greenfield
1993	814	758
1994	807	534
1995	924	498
1996	702	373
1997	599	672
1998	586	420
1999	758	265
2000	712	193
2001	656	105
2002	554	99
2003	822	113
2004	803	49
2005	663	182
2006	807	71
2007	711	8
2008	387	0
2009	324	0
2010	382	10
2011	522	38
2012	612	135
2013	621	274

Fig. 3 Brownfield and Greenfield housing completions in Aberdeen 1993-2013

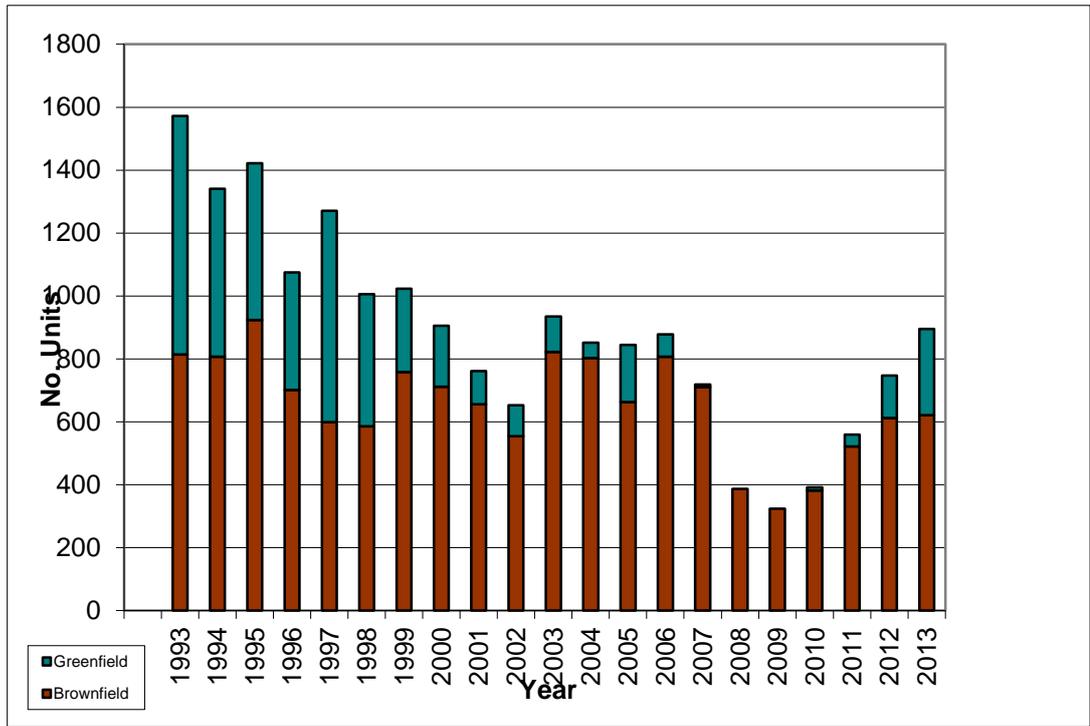


Fig. 4: Proportion of Greenfield to Brownfield Housing Completions 1991-2011

3. Methodology

3.1 Guidance on carrying out the Study

To inform our approach, we have looked to other brownfield potential studies, particularly the 2006 Glasgow and Clyde Valley Urban Capacity Study. Our approach was also guided by *Tapping the Potential: Best Practice in Assessing Urban Housing Capacity* (1999), an English guidance document produced for the then-Department for Transport and the Regions. Although now replaced, *Tapping the Potential* remains the most useful guide to carrying out brownfield potential studies. We have also made reference to the methodologies included in the Consultation Paper on the English Planning Policy Statement 3 Housing 2005/2006.

3.2 Sources of Suitable Sites

Fig. 5 shows the main sources of potential brownfield land which may be suitable for housing, according to the criteria discussed within the Glasgow and Clyde Valley Urban Capacity Study and *Tapping the Potential*. Not all of these are considered appropriate in the Aberdeen context, and their suitability is briefly discussed in Table 2. Those sources that are considered suitable have been examined in depth to identify sites to be included in the study. These are as follows:

- Vacant and Derelict Land
- Housing Land Audit
- Public Sector Demolitions/ Institutions
- Redevelopment of Other Uses

It is possible that potential for further units could be identified through the subdivision of existing housing, flats over shops (particularly in the city centre) and intensification of existing residential plots. However these are difficult to assess accurately and do not always represent desirable trends of development. For this reason, they have not been considered in any more detail in this study.

Windfalls

It is reasonable to say that windfalls, which are sites that unexpectedly become available for redevelopment during the course of the plan period, will yield additional housing units over time. However, no specific windfall allowance is calculated in this study.

Fig. 5 Sources of search for brownfield land suitable for housing

Source	Glasgow & Clyde Valley BUCS	Tapping the Potential	Suitable for Aberdeen	Notes
Scottish Vacant and Derelict Land Survey	Yes	Yes	Yes	Sites identified through the Scottish Vacant and Derelict Land Survey (SVDLS). It is good planning practice to 'recycle' vacant and derelict land and buildings back into use and the site visits conducted for this annual survey is a useful means of identifying new potential sites.
Housing Land Audit	Yes	No	Yes	The established land supply for the Housing Land Audit may include new brownfield sites which can be included in the BPS. These may be effective or non-effective. Housing on non-effective sites is generally acceptable in principle, and although it is constrained in planning terms by one or more factors, these sites should nevertheless be examined in more detail.
Public Sector Demolitions/Institutions	Yes	No	Yes	A number of public sector demolitions are currently being carried out by Aberdeen City Council. The majority of these are former school sites, some hospitals as well as the former Council HQ St Nicholas House.
Redevelopment of Existing Areas - Regeneration Areas	No	Yes	No	The Strategic Development Plan no longer requires a separate housing requirement within Regeneration Areas, but has added this to the overall brownfield requirement. However, there are no significant housing-led regeneration programmes currently underway in Aberdeen, so this source is not significant in Aberdeen.
Car Parks	Yes	Yes	No	There is no review of car parking underway at the time of writing and so no way of telling whether any car parks are underused or in the wrong place. This category should therefore be discounted as a potential housing source at this stage.

Green Spaces	Yes	Yes	No	Planning policies in Aberdeen are supportive of retaining open space in order to protect amenity, recreation and the natural environment. This category should therefore be discounted as a potential housing source.
Redevelopment of Other Uses	Yes	Yes	Yes	These sites include miscellaneous sites identified in the Local Development Plan, through development options or by planning and asset management officers. A number of these sites are still in use. Such sites have been included where there has been an interest expressed in their redevelopment and/or reallocation.
Subdividing Homes	No	Yes	No	The Tapping the Potential guidance suggests using past trends to estimate future potential and discounting over time as fewer larger dwellings remain. Aberdeen's long-term data on subdivisions is unreliable and no longer-term picture can be seen. Although this study cannot therefore examine this source in detail, it should be recognised that it is likely to continue to provide a significant source of housing over and above that identified in this study.
Flats over Shops	No	Yes	No	A crude rule of thumb suggested in Tapping the Potential is that a third of floor space above shops is available for conversion and that a third of this figure is suitable for conversion. However, the crudity of this method and the relatively low yield makes its inclusion in this study questionable. It was not used in the Glasgow & Clyde Valley Urban Capacity Study.
Empty Homes	No	Yes	No	There is little the planning system can do to bring empty private sector properties into use. Most of those in the public sector are being dealt with in the regeneration areas. It is also the case that the overall number of empty homes is very low, standing at 2% in 2011. This category has therefore been discounted as a potential housing source (Source: Scottish Neighbourhood Statistics 2012).
Intensification (for example	No	Yes	No	Further development is likely to continue to come forward from this

back land and garden development)				source as unidentified windfalls. However, identifying individual sites could be very time consuming. It could lead to pressure for development which could have an adverse effect on the character of some areas. This category should therefore be discounted as a potential housing source.
Review Existing Allocations	No	Yes	No	Tapping the Potential suggests a review of existing allocations in order to increase their density. As part of the review of the Local Development Plan 2013, we are not planning to reassess our existing allocations, either greenfield or brownfield.

3.3 Calculating Urban Potential

Once specific sites have been identified as being suitable for housing from the sources described above, an estimation of the potential number of homes they could accommodate has to be made.

Two methods of calculating potential have been used which give us different figures to compare. One method is based on the density of previous brownfield housing planning consents in Aberdeen City, whereas the other is based on generic or notional densities according to a site's location in the city.

These estimations have only been made for sites which do not have planning permission and therefore fall into the first group of sites (Future Potential). For sites in the second group (Established Potential), which have planning consent, we have counted the number of units for which permission was granted.

Method One

Previous Brownfield Housing Densities in Aberdeen

Fig. 6 shows the total number of housing units on brownfield sites which were given planning consent in Aberdeen from 1997 to 2011, and the average density (units per hectare) for each year. As this table illustrates, there are no discernable trends in the average densities of consents over this period. While the overall average sits around 50 units per hectare, in some years the figures have been significantly affected by one or two sites being granted permission to build at either particularly low or high densities.

Year	Sites	No. Units	Hectares	Units per ha.
1997	16	341	6.15	55.5
1998	26	861	15.42	55.8
1999	16	562	6.83	82.3
2000	17	787	9.44	83.3
2001	10	578	6.31	91.6
2002	12	439	7.83	56.1
2003	25	1,098	18.03	60.9
2004	14	881	18.09	48.7
2005	12	372	8.15	45.6
2006	15	864	23.29	38
2007	22	556	5.58	100
2008	8	488	25.86	19
2009	17	1241	11.61	107
2010	6	118	3.19	37
2011	19	1870	53.61	139

Total	235	11,056	219.39	Average Density 50.57
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Fig. 6 Number & density of brownfield planning consents in Aberdeen 1997 to 2011

We then went on to divide all of these sites into those which are small (up to 2ha) and large (over 2ha), calculating the average densities of consents for housing on 'small' and 'large' sites (Fig. 7). Consents for larger sites tend to be for a lower density (around **30 units/ha**) than on smaller sites (around **90 units/ha**).

	Sites	No. Units	Hectares	Average Units per ha.
Large Sites	29	4,455	145	30.64
Small Sites	206	6,601	74	88.93
Total	235	11,056	219	

Fig. 7 Average Densities on Small and Large Sites

These average densities have been applied to the future potential sites, to provide one estimate their potential capacity. The results are presented in Section 4.

Method Two

Indicative Density Ranges (IDR): Estimated Densities Based on Location in the City

A second method of the housing potential of sites is using the Indicative Density Ranges (IDR) set out in the Consultation Paper on the English Planning Policy Statement 3 Housing 2005/2006. Annex C of the Consultation Paper suggested the following Indicative Density Ranges (units per hectare) for different locations in the city:

- City Centre 70-95
- Urban 40-75
- Suburban 35-55
- Rural 30-40

We have applied these to Aberdeen in the following way:

- City Centre:** The area identified as the City Centre in the Aberdeen Local Development Plan Proposals Map;
- Urban:** The urban part of the 'Former City' parish area;
- Suburban:** Remaining settlements and built up areas within the former parishes of Old Machar, Dyce, Newhills, Peterculter and Nigg;
- Rural:** Green Belt areas (Note: no sites have been identified here).

The identified sites can be divided into each of these areas, and applied the high and low notional densities to give an estimated high and low potential for each site according to its location in the city. It should be noted that these may be regarded as conservative estimates compared to previous brownfield consent densities in all areas of Aberdeen. The results are presented in Section 4.

4. Results

4.1 Future Potential

By applying the various density scenarios discussed in Section 3 to the potential brownfield housing sites included in this year's Future Potential group, we found that there is the potential to accommodate between 4479 (IDR High scenario) and 2590 (IDR Low scenario) new homes on these sites (rounded to the nearest whole number). The figures based on small and large densities sits in between the two (3263 units).

The majority of these sites are located in the main urban area of the city, but outside of the City Centre. Delivering these homes depends on a wide range of factors including planning constraints on individual sites.

The subdivision of homes and the conversion of smaller commercial buildings, whilst not examined in detail here, are also likely to continue to make a significant addition to these figures as 'windfalls'. Therefore, the Future Potential figures could be regarded as a conservative estimate.

IDR High Scenario	IDR Low Scenario	Small and Large Densities
4479	2590	3263

4.5 Established Potential

This section shows how many brownfield units currently have planning permission, have commenced construction and completed in Aberdeen (but have come forward post-2011).

Total units with planning permission 31 st August 2014	2808
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4.6 Total Potential 2011-present

When the figures for Established Potential and the estimates of Future Potential are combined, we have a figure which gives a more accurate reflection of the total brownfield land housing capacity in Aberdeen:

Total Brownfield Potential

Between **7287** (highest estimate) and
5398 (lowest estimate)

4.5 Conclusions

The results show that, while we are able to identify a significant amount of brownfield land suitable for residential redevelopment, we are still between 2102 and 213 units short of meeting the full SDP requirement up to 2026.

By their nature, the availability of brownfield sites is difficult to predict. Based on the rate at which brownfield land has come forward in the last 3 years, it is very likely that enough land will come forward in the coming years to enable us to meet our full requirement to 2026.

The list of brownfield sites is not exhaustive. It is not reasonable to try and identify brownfield sites too far ahead in the future as sites tend to become available or get redeveloped all the time – sometimes unpredictably. For this reason, brownfield sites meeting the first seven years of the Strategic Development Plan’s requirement have been identified. We are confident that more, as yet unidentified sites will emerge and receive planning consent during the lifetime of the Local Development Plan. Much of this will be driven by the buoyant housing market here. In addition, future Local Development Plans will continue to identify brownfield sites to meet the housing allowances beyond the next 7-10 years.

5. Glossary

Brownfield - land which has previously been developed. The term may include vacant or derelict land (see below) or land occupied by redundant or unused buildings.

Constrained – sites which are not immediately available for redevelopment, for example due to legal, ownership, marketability, access or infrastructure factors. These issues are a barrier to the imminent development of a site.

Derelict Land - land which has been so damaged by development, that it is incapable of development for beneficial use without rehabilitation.

Effective Site - sites which do not have identified constraints and are therefore expected to be available for housing development

Greenfield – land which has not been previously developed.

Non-Effective Site – see also **constrained**.

Regeneration Area - areas designated as in need of intervention to improve wellbeing, through programmes of demolition and rebuilding of housing

Vacant Land - vacant land is land which is unused for the purposes for which it is held and is viewed as an appropriate site for development.

5- Year Effective Land Supply – the total number of units which expected to come forward within 5 years and includes an estimate of the likely contribution of small sites of five units or less.

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Group 1 – Future Potential

Name	Size (Hectares)
Aberdon House Care Home	0.64
Aberdeen College, Gordon Centre	2.21
AECC Site, Bridge of Don	13.15 (part identified for housing)
Former One Sports Centre, BoD	1
Balgownie Machine Centre	0.3
Balgownie Primary School	0.71
Bankhead Academy	2.7
Braeside Infant School	1.28
Byron Park Nursery and Infant School	0.77
Burnside Centre	2.4
Cornhill Hospital	5
Cults Pumping Station	0.69
Crown House	0.04
Causewayend Primary School	0.69
Craighill Primary School, Kincorth	0.86
Craiginchies Prison	1.6
Former Carden School	0.37
Dunbar Halls of Residence	1.23
Denburn and Woolmanhill	1.9
Former Dutch School, Boyd Orr Ave	0.18
Greenfern Infant School	0.91
96-126 John Street	0.4
Kennerty Mill	0.1
Kincorth Academy	4
Logie Place	0.12
Manor Walk	2.65
Marchburn Infant School	1.08
Milltimber Primary School	1.85
Torry Nursery School	0.6
Torry Academy	1.6
St Peter's Nursery Spital	0.09
Raeden Centre/Nurseries	1.5
Former Summerhill Academy	3.3
Smithfield School	2.27
St Machar Primary	1.01
Tillydrone Primary	2.11
Victoria Road School	0.67
VSA Gallowgate	0.12
Water Lane Grannary	0.06
Woodside Congregational Church	0.07

Group 2 – Established Potential

Name	Units
Abbey Road North, Torry	46
Balgownie Home Farm	35
Balgownie Centre	171
Cattofield Reservoir	71
140 Causewayend	147
Hilton Nursery School	18
Mile End Primary	37
Nazareth House, Claremont Street	92
Urquhart Road Former Works	100
Victoria House	40
Waterwheel Inn	20
Broadford Works	119
Craigieburn House Springfield Road	44
Croft House	31
3-9 Duff Street	37
Former Davidson's Mill	900
Greyhope Road	69
11 Jopps Lane	50
124 North Deeside Road	40
41 Nelson Street	9
Pittodrie Stadium	350
1-5 Salisbury Terrace	5
Woodlands School Craigton Road	5
Westburn Crescent	9
85-89 Loch Street	16
Grampian Court, Beaconsfield Lane	12
34 Maberley Street	12
Silverburn, Corunna Road	15
Ruthrieston Road	6
Oakbank School Midstocket	133
26-38 Union Street	19
253 Great Western Road	30
26 Netherkirkgate	10
Fmr Ruthrieston Garage	11
Ruthrieston Crescent	7
46-48 Nelson Street	10
4 Trinity Street	5
BP Dyce Site, Plot B	43
22-24 St Peter St	28
258-260 Union Street	6