NEWHILLS

Development Framework

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open

optimised environments

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The Newhills Expansion Area is a major urban expansion area on the western edge of Aberdeen City. It is one of the most significant expansion areas for Aberdeen in the next 20 years. Strategically, the Newhills area will form a new western boundary to the city and benefits from excellent connections via the AWPR and the A96(T) both into the city and outward to the surrounding area.

As one of a series of masterplan zones that have been identified by Aberdeen City Council (ACC), an over-arching Development Framework is required which co-ordinates the three separate Opportunity Sites and ensures that the overall area is considered as a whole. The Aberdeen Masterplanning Process: A Guide for Developers has been followed which states that "developers will be expected to work together to prepare Masterplans for each zone, and coordinate the planning and delivery of associated infrastructure requirements."

This document sets out a Development Framework for opportunity sites identified in the Aberdeen Local Development Plan (ALDP) as OP20, OP21 and OP22. This Framework provides a structure for future masterplan(s) and application(s) for Planning Permission in Principle.

The Newhills Development Framewor was first produced prior to the adoption of the Aberdeen City and Shire Strategic Development Plan 2020 and the Aberdeen Local Development Plan 2022. However the document remains valid, and the guidance derived from this still informs the City Council's decisions on such development in Aberdeen.

Any queries concerning the text of the document should be directed to Planning (01224 523470 or pi@aberdeencity.gov.uk) for clarification.

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1. the masterplan process

1.1 The Planning Process

1.1.1 Introduction

The Newhills Expansion Area Development Framework comprises three distinct sites: Craibstone South, Rowett South and Greenferns Landward. The area is located on the western edge of Aberdeen, and includes boundaries with the residential area of Bucksburn, employment areas at Rowett North and the Aberdeen International Airport and Green Belt land to the south and west. The Aberdeen Western Peripheral Route (AWPR) is planned to run to the west and will form a new boundary at the north-west of the expansion area.

1.1.2 Primary land owners/ promoters

The primary landowners are Scotland's Rural College SRUC (OP20), the University of Aberdeen (OP21) and Aberdeen City Council (OP22). The land owned by Scotland's Rural College SRUC is subject to a legal development agreement with CALA Management Limited (CALA); and a project manager, Bon Accord Land Promotion Ltd, has been appointed by the University.

1.1.3 Team

A multidisciplinary project team has been engaged to develop an overall approach to the Development Framework and strategically co-ordinate the individual development proposals. The team consists of the following:

Masterplanners: OPEN (Optimised Environments Ltd.)

Planning Consultants: Ryden

Environmental Consultants: Ironside Farrar

Transport Consultants: Fairhurst Ltd

Engineering Consultants: Fairhurst Ltd

1.1.4 Purpose

This document sets out and describes a Development Framework for the Newhills Expansion Area ("Newhills Development Framework") which is to be adopted as Supplementary Guidance by Aberdeen City Council (ACC). The Development Framework describes a residential-led mixed use development of up to 4440 residential units, supporting local retail, service, community and employment uses.

1.2 Planning Context

1.2.1 National Policy Guidance

The Development Framework and Phase 1 Masterplan will follow National Planing framework 3 (NPF3)
(2014).
The Vision set out in NPF3 is for a Scotland which is:

– a successful, sustainable place.
– a low carbon place
– a natural, resilient place
– a connected place

In preparing the Development Framework regard has been made to the over arching aims of Scottish Planning Policy and the need to consider and comply in particular with the guidance contained within a number of specific policy documents, Circulars and Planning Advice Notes (PANs). These documents include:

- Designing Places and Designing Streets;
- Planning Advice Note 3/2010 – Community Engagement;
- Planning Advice Note 83 – Masterplanning.
- Creating Places;
- Draft Scottish Planning Policy; and
- National Planning Framework 3 Main Issues Report;

Reference to these documents is considered in more detail in other parts of the Development Framework.

1.2.2 Aberdeen City and Shire Strategic Development Plan

The Aberdeen City and Shire Strategic Development Plan (SDP) was approved by Scottish Ministers in March 2014. The Strategic Development Plan allocates 31,500 houses to Aberdeen City for the period up to 2035, with 21,000 of these houses proposed for greenfield sites. The SDP also allocates 105 hectares of new employment land in the City up to 2026. In seeking to deliver a high growth strategy for the City and Shire, the SDP promotes the development of sustainable mixed communities.

Aberdeen is identified as a Strategic Growth Area in the Strategic Development Plan. Development at Stoneywoodcan help bring forward land for development and meet the sustainability objectives fo the Strategic Development Plan.

1.2.4 Nestrans Regional Transport Strategy Refresh (2013)

Nestrans' Regional Transport Strategy (RTS) was approved by Scottish Ministers and published in 2008 and a separate delivery plan published in 2010.

The RTS Refresh was submitted to the Scottish Government for comment in September 2013 and a final version was approved by the Minister for Transport and Veterans on 16th January 2014.

1.2.5 Aberdeen Local Development Plan

The Aberdeen Local Development Plan (ALDP) identifies the Newhills Expansion Area as a suitable location for new residential and employment uses in accordance with the approved Strategic Development Plan. Substantial allocations have been identified in recognition of the importance of the area to the expansion of the city. The ALDP highlights the opportunity for people to live close to places of work along the Dyce/Bucksburn A96(T) corridor and further take advantage of existing and planned features such as:

- The proposed AWPR junction via A96(T);
- The proximity to Aberdeen International Airport;
- The identification of the area as gateway to Energetica corridor; and
- The provision of a Park and Ride site along with a new access road into the Dyce Drive area.

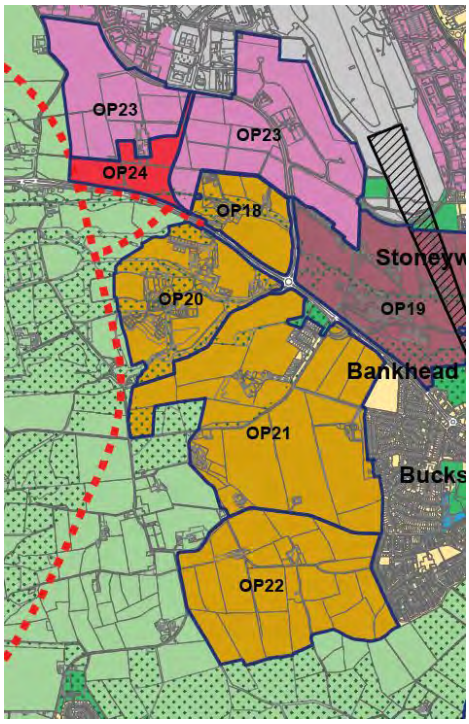


fig. 1: Aberdeen Local Development Plan: Opportunity sites

The ALDP allows for the development of 4,440 homes in the period to 2030 over three adjoining sites totalling around 220 ha; identified as OP20 Craibstone South (1,000 homes), OP21 Rowett South (1,940 homes) and OP22 Greenferns Landward (1,500 homes). The Plan states that a combined Masterplan is required for all three sites.

Site	Area (Ha)	Landowner / promoter	ALDP Allocation (all housing numbers			
			2007-2016	2017-2023	2024-2030	Total
OP20: Craibstone South	43.15	Scotland's Rural College SRUC/CALA Management Limited (CALA);	750	250	0	1000
OP21: Rowett South	106.85	University of Aberdeen/Bon Accord Land Promotion Ltd	1000	700	240	1940
OP22: Greenferns Landward	69.61	Aberdeen City Council	750	250	500	1500
	219.61					4440

In response to the above mentioned allocations within the ALDP, the primary landowners engaged with Aberdeen City Council through a scoping exercise and it was agreed that a Development Framework which addressed allocated land to the south of the A96(T) should be produced, incorporating all three sites, along with a Masterplan for individual sites albeit sites may be phased. These will also be progressed as SG. This Development Framework, once approved by the Council's Enterprise, Strategic Planning & Infrastructure Committee, will form Supplementary Guidance. The SG is sent to Scottish Ministers for ultimate approval. Any subsequent future Planning Applications will require adherence to the principles contained within the Framework when formulating detailed proposals for the site.

1.2.6 ACC Local Transport Strategy (2016-2021)

The Local Transport Strategy (LTS) outlines the policies and interventions adopted by Aberdeen City Council to guide the planning and improvement of the local road network on a five year period.

1.2.7 The Aberdeen Masterplanning Process: A Guide for Developers

The Aberdeen Masterplanning Process has been prepared as Supplementary Guidance by ACC as a guide for developers to the delivery of sustainable places. The term 'masterplanning' in this context includes the use of three design tools: Development Frameworks; Masterplans; and Planning Briefs. Development Frameworks are specifically recommended in "setting out a baseline, or 2 dimensional spatial framework, for the way in which large areas that may be in multiple ownerships, are to be developed."

The Development Framework specifically responds to four key issues:

- Context;
- Identity;
- Connection; and
- Communication and engagement.

The structure and format of this document follows the content of other adopted Supplementary Guidance documents and aims to illustrate a clear appreciation of each of these key issues has been reflected in the resulting Development Framework.

1.3 The scale of the development

The Newhills area has been allocated for around 4440 new homes up to 2030. Based on the latest Census results, the application of a factor of 2.1 person/dwelling suggests that close to 10,000 people may be accommodated within the proposed Framework area. The design team have examined a number of similarly scaled populations in Aberdeen neighbourhoods and surrounding towns and compared them with the anticipated population at Newhills. These comparisons are useful to illustrate the scale of development; types of place that are comparable; what uses they accommodate; and how successfully they function.

Above: The neighbourhood of Cults, Bieldside & Milltimber had an estimated population of 11,193 in 2011. The most recent neighbourhood profile document records 3,422 households in the same area (2006).

The town of Inverurie has a population of around 12,447 (estimated in 2011) within around 5,374 households (2008).

Newhills expansion area is adjacent to the existing community of Bucksburn which is estimated in 2011 to have a population of around 7,321. The 2001 Census recorded 3,332 households in the area. Other neighbourhoods in the vicinity include Kingswells (population estimated at 5,818 in 2001).

Westhill has a population of around 11,274 (estimated in 2011) within 3,950 households (2008).

Ellon has a population of around 9,633 (estimated in 2011) within 4,231 households (2008).

Note: Population figures extracted from relevant pages on Aberdeen City Council and Aberdeenshire Council websites.

1.4 Technical Consultation

1.4.1 ACC and Technical Consultation

A series of workshops and technical meetings have been completed by the design team with ACC Officers in order to gather their input and comments at appropriate stages in the progression of the Development Framework. The key dates and scope of these consultations is set out below.

Scoping workshop. Early November 2012.

Initial meeting with client group and ACC officers to agree approach and key principles to progress the Development Framework.

General ACC workshop. 20th August 2013

Workshop prior to the initial public consultation event to provide an update to ACC Officers on the process, provide overview of site, owners and Development Framework scope. Key issues were highlighted by the design team for further input and discussion. Material for public exhibition was presented which included an initial approach and key questions to be posed to the public.

Transport workshop. 1st October 2013

Workshop hosted by Fairhurst to review Development Framework approach to accessibility, access and agree parameters for strategic road modelling .

General ACC workshop. 28th October 2013

Workshop prior to the second public consultation event to review working document issued by design team on 11th October.

In additional, direct consultation and communication has been carried out by discipline specifically relating to environment, transport and masterplanning.

fig. 2: Exhibition boards presented at first public consultation event

1.5 Community Consultation and Engagement

The Development Framework process has sought commitment to the involvement of local people and relative stakeholders, throughout all stages in the design and development process for Newhills. This Development Framework has benefited from diverse and constructive consultation and involvement with the surrounding community and important stakeholders, in accordance with Planning Advice Note 81; Community Engagement, Circular 3/2010: Community Engagement and Aberdeen City Council's Guidelines for Community Engagement.

The community engagement and consultation approach for the Newhills Expansion Area has been specifically designed to:

- Create an awareness of the Newhills Expansion Area Development Framework aspirations, creating 'knowledgeable communities' which can then contribute purposefully at all stages of the development process;
- Ensure events are well publicised, welcoming and accessible to the community;
- Ensure engaging and inspiring consultation materials which present information clearly and in an accessible format;
- Ensure that members of the design team are available at consultation events to answer questions and engage in dialogue;
- Provide opportunities to comment and become involved;
- Keep people informed of progress; and
- Give confidence and assurance that comments and feedback are welcomed and issues dealt with.

1.5.1 Process

A consultation strategy was devised and agreed with the Council for the wider Development Framework. In preparation of the Development Framework the landowners and development parties have been proactive in the involvement of the surrounding local community and stakeholders, including the public, Community Councils and elected representatives within or adjacent to the proposal site. All parties were encouraged to provide feedback on their vision for the Newhills Site which was subsequently fed into the initial design concepts.

1.5.2 First public exhibition

An initial public exhibition was held in the Beacon Centre, Bucksburn on 20th August 2013 and members of the public were invited to come to "drop in" type sessions in order to gain a better understanding of the proposals for the area and gave them a chance to chat with representatives of the developer and landowner regarding any thoughts, issues or concerns they had. Leaflets were made available at the events and feedback forms were also provided for comments.

1.5.3 Feedback from Community Councils

Formal responses following the first public exhibition were received from Kingswells Community Council and Bucksburn and Newhills Community Council. Their responses are summarised as follows:

- The idea of breaking the development up into multiple neighbourhoods defined by existing landscape features is supported.
- Careful consideration should be given to building heights and avoid breaching the existing skyline, particularly near prominent features such as Newhills Church and rural edge.
- Employment land should be located within the Rowett South and Craibstone areas with easy access to A96(T) & AWPR. A mixed use centre would not be supported within OP22 (Greenferns Landward) site.
- Development should be sympathetic and protect/enhance biodiversity in the area offering new planting opportunities and enhanced watercourses.
- Green and open space needs to be useful to the surrounding community and the provision of playing fields needs considered.
- There should be a natural buffer between the site and surrounding heather/ gorse.
- Concerns over additional traffic pressures, major upgrades and careful planning will be required.
- The idea of a southwards continuation road to link with the Lang Stacht would be strongly contested.
- The boundary of the A96(T) should have a woodland buffer to screen road traffic noise.
- Careful consideration should be given to the location of the traveller's site within the development.

- Thought must be given in the early stages over the school locations.
- Demand for retail in area is low, the new houses will strengthen the existing retail units.
- A connecting road from Provost Rust Drive or Provost Fraser Drive through the new development should be considered to alleviate traffic problems associated with Kepplehills Road, A96(T) and Haudagan Roundabout.
- Work needs to ensure that Forrit Brae will no longer be utilised as a "rat-run"
- Consideration of an access to the AWPR heading south.

1.5.4 Public responses to first public exhibition

Around 150 people attended the first public exhibition, 63 signatures were recorded and a total of 25 comments were received from members of the surrounding community. A summary of their responses is set out below:

Support for the Proposals

- The majority of the responses received indicated that they found the exhibition informative and helpful.
- Generally happy and recognise development needs to take place and will bring many benefits to the area.
- Examples of equivalent scale of development elsewhere has brought a mix of uses offering employment opportunities for the community.

Opposition to the Proposals

- Many of the concerns were highly constructive and focused on Transportation which are detailed in greater depth below.
- Concerns over loss of green space and impact on wildlife
- A number of the responses raised concerns that this number of houses would be over-development of the area.
- Shouldn't be developing on agricultural land, brownfield sites would be more appropriate
- A number of concerns over the siting of a Gypsy / Traveller site.
- Loss of value to properties.
- Of the 25 written submission a total of 4 were in clear opposition to the proposals whereby they would wish to see no development at all.

Transportation

- Issues were raised with existing access and traffic congestion.
- It was felt that infrastructure needs to be planned logically and properly delivered through "joined up thinking".
- There were concerns over linkages to Rowett South and Greenferns Landward sites with the A944 to the south.
- Suggestions were made that transportation infrastructure needs to be put in place first prior to any housing being built.
- A further point was made that no sites should be developed prior to AWPR delivery.
- There was a general feeling that existing roads need major improvements at present prior to any additional development.
- It was deemed imperative that road safety measures need to be considered within the entire development.
- The existing A96(T) should be made more "street like" rather than a dual carriageway
- Proposals need to consider the location of bus stops in order to serve the development.
- Sought assurances that new public transport routes would be established to accommodate this large expansion.

Design Concerns

- Low carbon renewable energies need to be factored into the development.
- The new housing needs to be sympathetic to established neighbouring development and form linkages with the existing community.
- Density of development needs to be thought out carefully.
- Landscaping and effective open space needs to be considered to protect and promote the abundance of surrounding wildlife.
- It was suggested that a range of property sizes and types be built across the development
- The development should be split into a number of neighbourhoods characterized and divided by existing and new landscaping features, open space and streets.

Community Requirements

- More play parks are urgently needed in the area for children to play.
- Sports pitches and playing fields should be delivered as part of this development.
- More leisure facilities required

Further Suggestions

- Consideration must be given to affordable housing provision and questions raised whether it would be contained within development or off-site.
- Principles of replacement planting of any tree loss are imperative.
- Concerns over impact on existing surrounding residents during construction phases.
- Greenferns (OP22) site is in close proximity to area of gorse which could present a fire risk.
- Forestry Commission concerns over increased public pressures on access to forests at Tyrebagger & Kirkhill, keen to discuss paths and linkages from Craibstone/ Newhills expansion area.

1.5.5 Design team response to comments

Subsequent to the initial round of consultation, all feedback was considered by the Design Team and where appropriate the proposals were revised accordingly. Specific responses are summarised below under the same topics in the same format as presented on the second exhibition boards.

TRANSPORTATION

WHAT YOU TOLD US...	OUR RESPONSE...
"Existing accesses and roads are already congested"	The Design Team acknowledge that a large number of the responses highlighted concerns over the existing transport network surrounding the site and the associated pressures and car journeys this new development will undoubtedly exert. Issues including the poor quality of existing roads, congestion, road safety and the importance of the delivery of the AWPR were just some of the concerns felt by surrounding residents and Community Councils. In preparation of the Development Framework and associated Masterplan prior to the formal submission of planning permission in principle, the Design Team undertook a Transportation Scoping report and Transportation Assessment (TA) which contains detailed analytical assessment and traffic modelling work looking at the strategic and cumulative impacts of the development on the existing and future surrounding road network.
"Infrastructure needs to be planned logically and delivered through joined-up thinking"	Detailed and coordinated phasing would be utilised to ensure that as pockets of development come forward, there will be a clear and integrated approach to the associated infrastructure requirements.
"A road connection to the A944 Lang Stracht from the Greenferns Landward is not appropriate and would be strongly contested"	A connection southwards is part of ACC's long term strategic study and is not being promoted directly as part of the Newhills Expansion area Development Framework. Delivery of this connection would be driven by ACC.
"The A96 should be more 'street-like'"	The upcoming delivery of the AWPR and consequential "de-trunking" of the A96 will also have a direct and positive impact on the surrounding road network affecting the development, not only alleviating pressures of traffic through the city centre but also improving general road safety issues with the A96. Whilst an actual 'street' may not be functionally possible, given the volume of traffic that will still have to be accommodated, ACC have confirmed that they will be assessing an appropriate change in speed limit which will help change the character of the road considerably.
"Location of bus stops needs to be considered from the outset...new public transport routes are critical"	An access strategy will be produced to address the local community's concerns, which seeks to encourage alternative forms of transport. This exhibition shows the potential for new bus routes through the expansion area.

"The new roads in the expansion area need to be safe for all users"	The Development Framework will promote principles contained within "Designing Streets" which gives priority to pedestrians and cyclists over motor vehicles and the use of appropriately designed shared surfaces is essential to delivering the vision advocated by the government and designers.

"No sites should be developed prior to the AWPR delivery...there is a need for significant improvements on the existing network prior to further development"	The current Aberdeen Local Development Plan allocation allows for the delivery of 2500 new homes within the 2007-2016 Plan period across the OP20, OP21 and OP22 sites. As such the principle of residential development has been established through said allocations and there is no requirement within the ALDP for the upfront delivery of the AWPR, prior to build out of residential units. However the development will be located in close proximity to the AWPR, which will bring benefits such as a new grade separated junction proposed on the A96 and as discussed above, upon completion, it will alleviate pressures on the surrounding road network. There is capacity on the existing network prior to the scheduled completion of the AWPR in 2018. The ongoing strategic modelling will identify where this capacity is and what improvements need to be made to use them. Unfortunately with such a large scale it would not be possible to deliver all the associated infrastructure requirements upfront as the outlays would be excessive.

DESIGN ISSUES

WHAT YOU TOLD US...	OUR RESPONSE...
"The new housing needs to be sympathetic to established neighbouring development and form linkages with the existing community."	A fundamental role of the entire Development Framework and Masterplanning process is to ensure high quality design and sympathetic integration with the surrounding area. There is clear recognition of the need to create a development of quality, worthy of its prominent position within the city, incorporating sustainable mixed neighbourhoods and not one of a generic suburban housing estate.
"Density of development needs to be thought out carefully... a range of property sizes and types should be provided across the expansion area."	It is necessary to deliver the housing numbers allocated to the site and some housing tenures, for example affordable units, may need to consider higher densities on parts of the site. At Development Framework level, the exact composition of property types and sizes is not specified, however in testing the layout a wide range and mix of units is used.
"The development should be split into a number of neighbourhoods characterized and divided by existing and new landscaping features, open space and streets."	This is the intention of the design team: the Scottish Government promotes the creation of sustainable mixed communities, therefore the phasing and delivery strategy for the development ensures a range of facilities and services will be provided in each stage, resulting in a self-sustaining settlement, with each phase capable of operating as its own entity.
"Landscaping and effective open space needs to be considered to protect and promote the abundance of surrounding wildlife."	Landscape is a critical structuring element of the Framework and a number of prominent features existing in and around the site have been identified as important to integrate into the design. The identification of green corridors and semi-natural areas is required by the Council's open space guidance and ensures that there are routes and habitats for wildlife within the development.
"Low carbon renewable energies need to be factored into the development."	The Council's guidance on Low and Zero Carbon Buildings sets out requirements for renewable energy which will be considered at later, more detailed stages of development"

ENVIRONMENTAL ISSUES

WHAT YOU TOLD US...	OUR RESPONSE...
"Replacement planting for any tree losses is imperative"	A tree survey is to be carried out which will confirm the condition of all trees on the respective sites. There is very little tree loss proposed by the Framework as the benefits of the existing mature trees have been identified as critical to the character and identity of the area. Open space has been associated with such mature specimens to protect them and give an appropriate landscape setting. Additional woodland areas are proposed which will further strengthen landscape structure and provide green corridors for people and wildlife.
"Development should be sympathetic and protect/ enhance biodiversity in the area offering new planting opportunities and enhanced watercourses."	Ecological Assessments have formed the basis of a full Environmental impact Assessment (EIA) which is undertaken to ensure a comprehensive evaluation and there is no detrimental impact to wildlife and protected species. The design team would share the desire of the surrounding community that Open space should be integral to the overall development and this development Framework and Masterplan has sought to incorporate high levels of formal and informal open space into the development, whilst making the best use and fluid connections to existing and surrounding areas.

COMMUNITY FACILITIES

WHAT YOU TOLD US...	OUR RESPONSE...
"More playparks are urgently needed in the area for children to play.... More leisure facilities are required""	The Council's guidance on Open Space provision sets out requirements of play areas – specific diagrams within this exhibition illustrate how many are proposed and their location within the framework.
"Sports pitches and playing fields should be delivered as part of this development."	Due to the sloping nature of the site, there are few areas which could accommodate large areas of playing fields without considerable earthworks and the corresponding visual and physical disturbance. Playing fields will be provided with the Primary School sites and in open space adjacent to the AWPR within OP30 where it can be placed relatively sympathetically. Existing facilities at Forrit Brae and around Bucksburn Academy ensure that much of the expansion area falls within the accessibility standards set by the Council's guidance on Open Space provision. Additional provision will be in the form of compact multi-use games areas (MUGAs) and small-scale surfaces.

FURTHER SUGGESTIONS

WHAT YOU TOLD US...	OUR RESPONSE...
"Consideration must be given to affordable housing provision and questions raised whether it would be contained within development or off-site."	A fundamental role of the entire Development Framework and Masterplanning process is to ensure high quality design and sympathetic integration with the surrounding area. There is clear recognition of the need to create a development of quality, worthy of its prominent position within the city, incorporating sustainable mixed neighbourhoods and not one of a generic suburban housing estate.
"What will be the impact on existing surrounding residents during construction phases?"	A Construction Management Plan is the normal requirement for submission at the next stage of detail design; this document sets out the mitigation required to minimise disruption to residents during construction.

"Careful consideration should be given to the location of the traveller's site within the development."	The reservation of land at within the Newhills Expansion area for a gypsy/ traveller transit site is a requirement set down in Aberdeen Local Development Plan Policy to meet housing and community needs. Land has been allocated within the Framework for such a site to be delivered. The associated needs locational requirements are subject to ongoing communications with the Council, and these may be subject to future change.
"Greenferns (OP22) site is in close proximity to area of gorse which could present a fire risk."	A buffer is proposed between the development site and these areas of gorse and heather to mitigate this potential risk. It is also envisaged that by opening up some of the surrounding countryside to the new development though linkages and pedestrian/cycle paths, educational information could be provided in the form of signage warning of the risks associated with deliberate fires in the area, which would act as a deterrent.

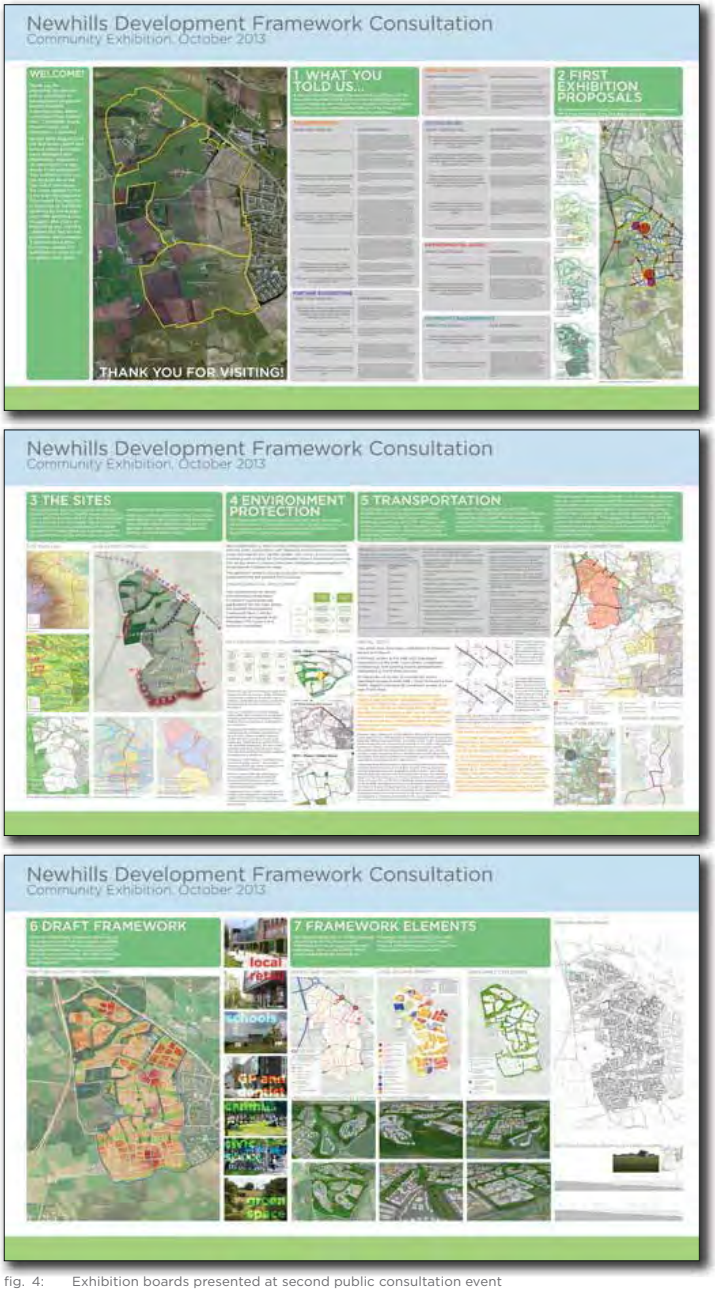


fig. 4: Exhibition boards presented at second public consultation event

1.5.6 Second public exhibition

A second round of public consultation was held on Monday 28th October 2013 at the Beacon Centre, Bucksburn from 3:00pm – 8:00pm. This event was well attended with a total count of 67 visitors throughout the day and into the evening. Similar to the first consultation, Elected Representatives and Community Councils were invited and fully briefed at a preview event which was held an hour prior to the formal main exhibition opening. Feedback forms were provided and a period of three weeks has been allowed for responses to be submitted.

1.5.7 Feedback from Community Councils

Members from Bucksburn and Newhills Community Council and Kingswells Community Council who attended the above mentioned preview event, followed this up with formal written responses. These are summarised as follows:

- Pleased that some of the previous points raised in response to the first public exhibition have been considered positively.
- New Retail units need to be well located to attract shoppers with appropriate parking provision.
- Height and location of buildings need to respect the backdrop of Brimmond Hill and should not detract from this prominent feature.
- Strong opposition to the Gypsy / Traveller site within the framework area as there is already a site at Clinterty and also proposals for another at Howes Road, both in close proximity. If a site is necessary, Newhills Community Council considered it would be more suitably located to the extreme south of OP22.
- Concerns over traffic generation and future management within the framework area and surrounding road network.
- Suggestion that a new road connection between Hopetoun Grange and the A96 is incorporated and the existing Forrit Brae access onto the A96 closed off, in order to ease congestion on Dyce Drive.
- Failure to secure a connection south to link with the AWPR would be a missed opportunity.
- The Community Council would like to be positively involved in planning green spaces, play areas and areas of biodiversity.
- The playing field would be better located adjacent to Hopetoun Terrace/ Hopetoun Avenue for both existing and incoming children.

1.5.8 Public responses to second public exhibition

A total of 67 people attended the second public exhibition, with 57 signatures recorded and a total of 10 comments received from members of the surrounding community. A summary of their responses are set out below:

Support for the proposals

- The majority of responses again found the exhibition to be very helpful and informative with questions and queries being answered.
- The development is ambitious, however gratifying that consideration is being given to provision of primary health care facility.
- The proposed layout appears well thought out and sympathetic to the landscape and surrounding developments.
- Welcome the amount of green space provision within the Framework area

Objection to the proposals

- As with the first round of public consultation, much of the concerns focused on perceived traffic implications and congestion including a lack of linkages to AWPR and also the A96.
- The majority of responses demonstrated clear objection to the location of a Gypsy / Traveller site within the Framework area given existing and other proposed sites within close proximity.
- Concern over the scale of the development.

Transportation

- Concern was again expressed regarding traffic generation and increased congestion for the existing network.
- Particular concerns over existing junction at Forrit Brae onto the A96 and suggestion that this should be stopped up and one or more new improved junction(s) created onto the A96.
- The new spine road from the Craibstone roundabout to Greenferns Landward has no connection to the AWPR going south which will lead to future congestion problems.
- Any proposals for a connection from the site to the A944 would result in the loss in valued Greenbelt and community woodland.
- Re-route the Newhills to Forrit Brae road on to the A96 at a point to the east of the existing junction.

Gypsy / Traveller Site

- A significant number of responses voiced major opposition to the area indicated for the Travellers site.
- Concerns over potential increased crime, devaluation of property, deterrent for business investment.
- Unjustified requirement given the existing permanent site at Clinterty and also City Council proposals for another at Howes Road, Bucksburn.

Community Requirements

- Proposed location of a playing field at junction of Hopetoun Grange and Forrit Brae is too close to existing under utilised playing field at Forrit Brae.
- The Newhills Framework Area requires a NHS practice with a core physical presence within the development with a minimum of a 13 GP unit.
- Scope to be more ambitious in the provision of a multifunctional Health Village such as that at Fredrick Street, Aberdeen.
- Some concern over surrounding secondary school capacity to absorb this development.

1.5.9 Design team response to second series of public comments

Subsequent to the second round of public consultation, feedback was considered by the Design Team and utilised to finalise the Development Framework. Unsurprisingly, a number of issues and concerns have been reiterated from the first round of consultation, albeit more specific, in response to more detailed and complex presentation material reflecting the progression of the Development Framework in the intervening period between both public exhibitions. Specific responses to the issues raised are detailed below under a number of related topics.

TRANSPORTATION

WHAT YOU TOLD US...	OUR RESPONSE...
"Forrit Brae is dangerous and should be stopped up or the junction with the A96 shifted east"	The Design Team will continue to collaborate closely with the Council's Roads Service and a strategy for improvements at the existing Forrit Brae junction onto the A96 are continuing to be explored. The potential for a new replacement junction is also something that could easily be accommodated within the layout and the Framework could be adapted should this be a preferred option of the Council's Roads Service.
"What will be done to prevent 'rat-running' through the new development?"	The Design Team acknowledges that with such an allocation, it is inevitable that there will be an associated influx in vehicular activity onto the surrounding network, however as previously stated a great deal of traffic modelling and assessment of associated transportation impact has been undertaken. A network of new streets will run through the development which is guided by the principles set out in the Scottish Government's Designing Streets policy. The aim is to reduce vehicular speeds and eradicate the tendency to "rat run". The Framework Area will also be required to contribute towards a Strategic Transport Fund in order to deliver further measures to mitigate the cumulative impact on the wider transport network.
"Why is there no link to the AWPR?"	At this time the layout of the AWPR is finalised and neither a direct connection with the Newhills Expansion Area nor the adaption of the north-facing junction at Kinsgwells is possible ; this is generally perceived as a missed opportunity by local residents in the area. However the Design Team recognise that once delivered and operational, this will have associated impacts for the Framework area and will ease associated traffic pressures through the city

GYPSY / TRAVELLER SITE

WHAT YOU TOLD US...	OUR RESPONSE...
"There is no need for the Gypsy Traveller site when there is a permanent site at Clinterty and also City Council proposals for another at Howes Road, Bucksburn. If is a fundamental requirement then it may be better located to the southerly aspects OP22."	Subsequent to recent and ongoing discussions with Aberdeen City Council, the Design Team recognises that the provision of a Gypsy / Traveller site within the Newhills Expansion area is a requirement set out within the Aberdeen Local Development Plan. As such the Design Team has explored a range of potential sit es within the entire Framework Area and selected two separate locations, one within OP21 Rowett South and one within OP22 Greenferns Landward. The identification of these of options will allow ACC to subsequently consider them against established Council criteria. It is hoped that through continued discussion and negotiation with the City Council, a preferred option can be agreed.

COMMUNITY REQUIREMENTS

WHAT YOU TOLD US...	OUR RESPONSE...
"There should be a playing field at the junction of Hopetoun Terrace/Hopetoun Avenue"	The Design Team has explored the potential to relocate the proposed playing field to the position suggested in a number of the feedback responses (junction of Hopetoun Terrace/ Hopetoun Avenue). At present this area is quite steep and would not be appropriate for such a large scale playing surface. This site is also a natural low point within the Framework Area for drainage, therefore would be required for SUDs. There are however a number of play zones identified and in particular, one to the west of the above mentioned location. There may be potential for further exploration as to whether this zone could be utilised as a Multi-Use Games Area
"There is not enough existing capacity for new secondary school pupils"	The requirements for a secondary school within the Framework Area have changed since the adoption of the ALDP. Close liaison and discussions with Aberdeen City Council have informed that there is no longer a requirement for a secondary school. It is envisaged that the delivery of a new secondary school at the Countesswells development will draw pupils from Kingwells, thus freeing up additional space at Bucksburn Academy. Quite a significant capacity also presently exists at both Dyce and Northfield Academies, which would also draw pupils from the Framework area. Finally and subject to further review by Aberdeen City Council, there may be scope for future expansion at Bucksburn Academy to accommodate part/all of the development, ultimately this decision lies with the Council.
"The proposed Health Centre could be a more ambitious facility like the Health Village at Fredrick Street, Aberdeen"	The Aberdeen Local Development Plan (ALDP) highlights potential infrastructure requirements for Masterplan zones, including the Newhills Expansion Area. As such, there is a requirement for contributions to be made towards the provision of a New 13 GP health centre for 6 existing and 7 additional GPs. In addition, the requirements for a new 6 chair dental surgery and 3 new community pharmacies are also highlighted. The Design Team recognise the requirements for contributions and full details of the proposed phasing and delivery of such infrastructure is detailed within section 6 of this Development Framework. It is expected that the delivery of the above mentioned facilities will involve collaborative working between developers, NHS Grampian and the Council's Planning Gain Unit.

2. the sites

2.1 Introduction and context

2.1.1 City context

The Newhills expansion area is one of the most significant expansion areas for Aberdeen in the next 20 years. It is one of a series of masterplan zones that have been identified by ACC "within which developers will be expected to work together to prepare Masterplans for each zone, and coordinate the planning and delivery of associated infrastructure requirements."

Strategically, the Newhills area will form a new western boundary to the city and will benefit from excellent connections via the AWPR and the A96(T) both into the city and outward to the surrounding area. It is important in terms of arrival on an international as well as regional and local scale, firstly as it is viewed from the air, and subsequently as viewed from the ground when travelling along the A96(T), AWPR and Dyce Drive and entering the City.

Key opportunities in relation to the context of the expansion area:

- Important city edge site;
- Excellent potential for transport and infrastructure resources;
- Significant associated employment north of A96(T);
- Energetica initiative to north-east;
- Good proximity to Aberdeen International Airport;
- The new Aberdeen Exhibition and Conference Centre (AECC) to the north;
- Access to Brimmond Hill open space and other landscape resources; and
- Access to AWPR via full junction on A96(T).

2.1.2 Current situation

The Newhills Expansion Area is on the western edge of Aberdeen and is bounded to the north and north-east by the A96(T) Aberdeen - Inverness trunk road and by the existing residential area of Bucksburn to the east. The planned Aberdeen Western Peripheral Route will form a boundary to the north-west. The remaining boundaries on the south and south-west are formed by landscape areas and are designated Green Belt. A small range of local shops can be found at Sclattie Park which is around 0.5 miles from the centre of the site whilst Oldmeldrum Road which is largely considered to be the neighbourhood centre of Bucksburn is a little over a mile away from the site and contains a selection of local shops and services. Kingswells is around 1.5 miles from the centre of the site and Aberdeen International Airport is located immediately to the north. The city centre itself is around 4.5 miles to the south-east of the expansion area.

The three sites allocated for development straddle the boundaries of Bucksburn and Newhills Community Council and Dyce and Stoneywood Community Council. A small section to the south west of Greenferns Landward (OP22) abuts the Kingswells Community Council area.

The site enjoys good links to the open space resource of Brimmond Hill and connects into the wider network of the 'Three Hills', a Local Nature Conservation Site (LNCS). The Bucks Burn corridor runs to the south of the area and is also identified as (LNCS) incorporating Burnbrae Moss, an important wildlife site.

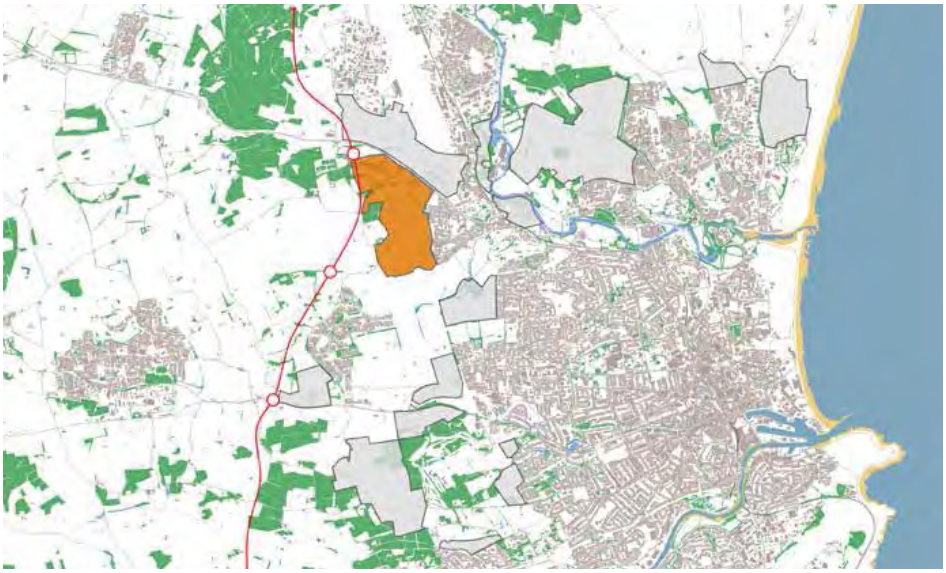


fig. 5: Newhills in context of other masterplan areas, city structure and AWPR

fig. 6: Newhills Development Framework Opportunity sites and surrounding area

2.2 Site description

The Newhills Expansion Area comprises three specific sites:

- OP20: Craibstone South;
- OP21: Rowett South; and
- OP22: Greenferns Landward.

Whilst each site has particular distinctive features, there are character areas and characteristics which cross boundaries and are common irrespective of land ownership. The following pages briefly describe the existing condition of the individual sites with specific photographs to illustrate character.

2.2.1 OP20 (Craibstone South)

SRUC's Craibstone Estate has been a key part of SRUC's operations for many years, and formed part of the North of Scotland College of Agriculture prior to it forming part of then SAC in 1990, now SRUC. The estate has provided a variety of facilities on site, including veterinary laboratories, research fields, classrooms and a working farm.

The site primarily comprises fields surrounded by woodland used for research and education. There are also a number of existing buildings on site associated with both the farm and education facilities, such as student accommodation, farm buildings, nursery buildings, maintenance buildings and educational/research facilities.

The existing buildings to the south of the A96 are located at the centre of the site in an existing parkland area and are accessed by the driveway. The research fields are located surrounding these core facilities and contained within an established woodland structure.

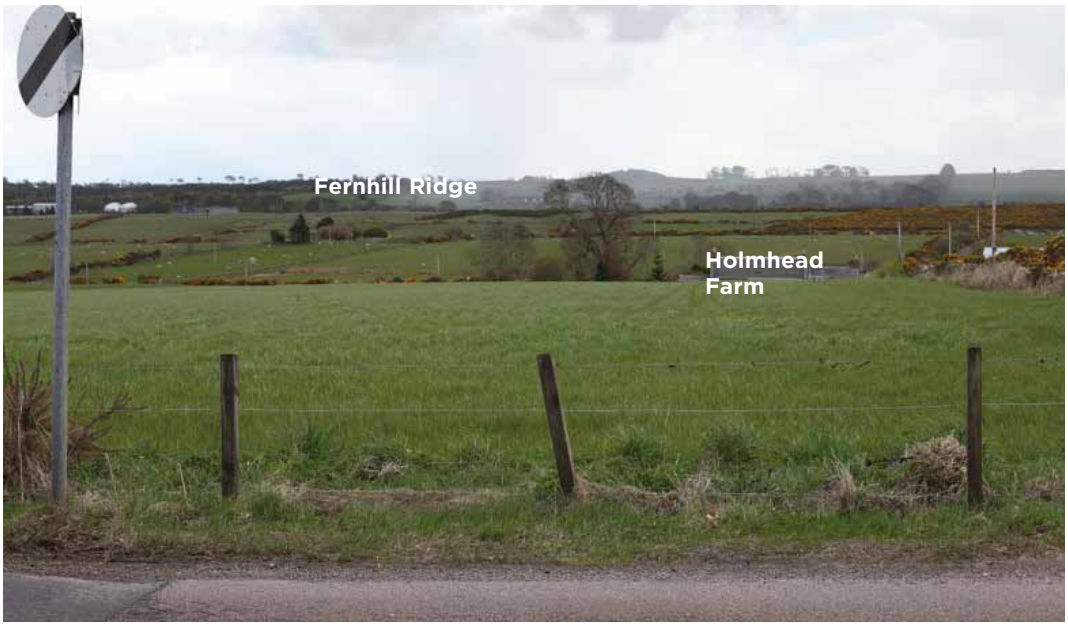
SRUC has decided to consolidate and invest in its activities at Craibstone to provide a sustainable facility on a smaller consolidated campus. Located around the Ferguson Building, the consolidated campus will be designed to be an integral part of the wider Newhills Expansion Area . It is believed that the students, education and office staff will help support the "village model" proposed at Craibstone whilst continuing to enjoy the location within Craibstone Estate.

2.2.2 OP21 (Rowett South)

The Rowett South site shares many of the topographical characteristics of the Greenferns Landward site to the immediate south, generally having an undulating form of rolling landscape ridges and valleys in agricultural use. There are a number of significant lines of mature trees planted both as avenues and structural woodland blocks. Within the opportunity site there are a number of existing areas and uses which are proposed to be retained - these are largely residential in nature such as the developments at Forrit Brae and Christie Grange. The Bucksburn Care Home is within the opportunity site boundary, however is excluded from the Development Framework proposals. Development will respect existing uses within the site.

2.2.3 OP22 (Greenferns Landward)

The Greenferns Landward site is characterised by gently sloping open agricultural land, divided into numerous fields and lots. Two private farmsteads sit within the site boundary and are characteristic of the general settlement type in Aberdeen's hinterland. Field boundaries are largely defined by ditches, hedgerows, walls and fences; there are few mature trees of any significance. A single private property sits centrally in the site and is outwith the landownership the rest of the opportunity site.



2.3 Land Ownership

2.3.1 Land owners and promoters

A number of land owners have been identified within the opportunity sites which comprise the Newhills Expansion Area.. The primary landowners are Scotland's Rural College SRUC (**OP20**), the University of Aberdeen (**OP21**) and Aberdeen City Council (**OP22**). The land owned by Scotland's Rural College SRUC is subject to a legal development agreement with CALA Management Limited (CALA); and a project manager, Bon Accord Land Promotion Ltd, has been appointed by the University.

In addition there are a number of private land owners and tenants within and adjacent to the primary land holdings. OP22 (Greenferns Landward) has a private landowner within its boundaries.

The plan to the right shows the current understanding of those areas which are excluded from Development Framework proposals.

2.3.2 Additional Land Holdings within Framework Area

The various Opportunity site boundaries include land which is outwith the control of the Primary Landowners. These areas are included within the Development Framework boundaries but no specific proposals have been made for them. These areas include existing housing at Forrit Brae, Christie Grange and surroundings, Hope House, Netherhills the Bucksburn Care Home and the existing reservoir.

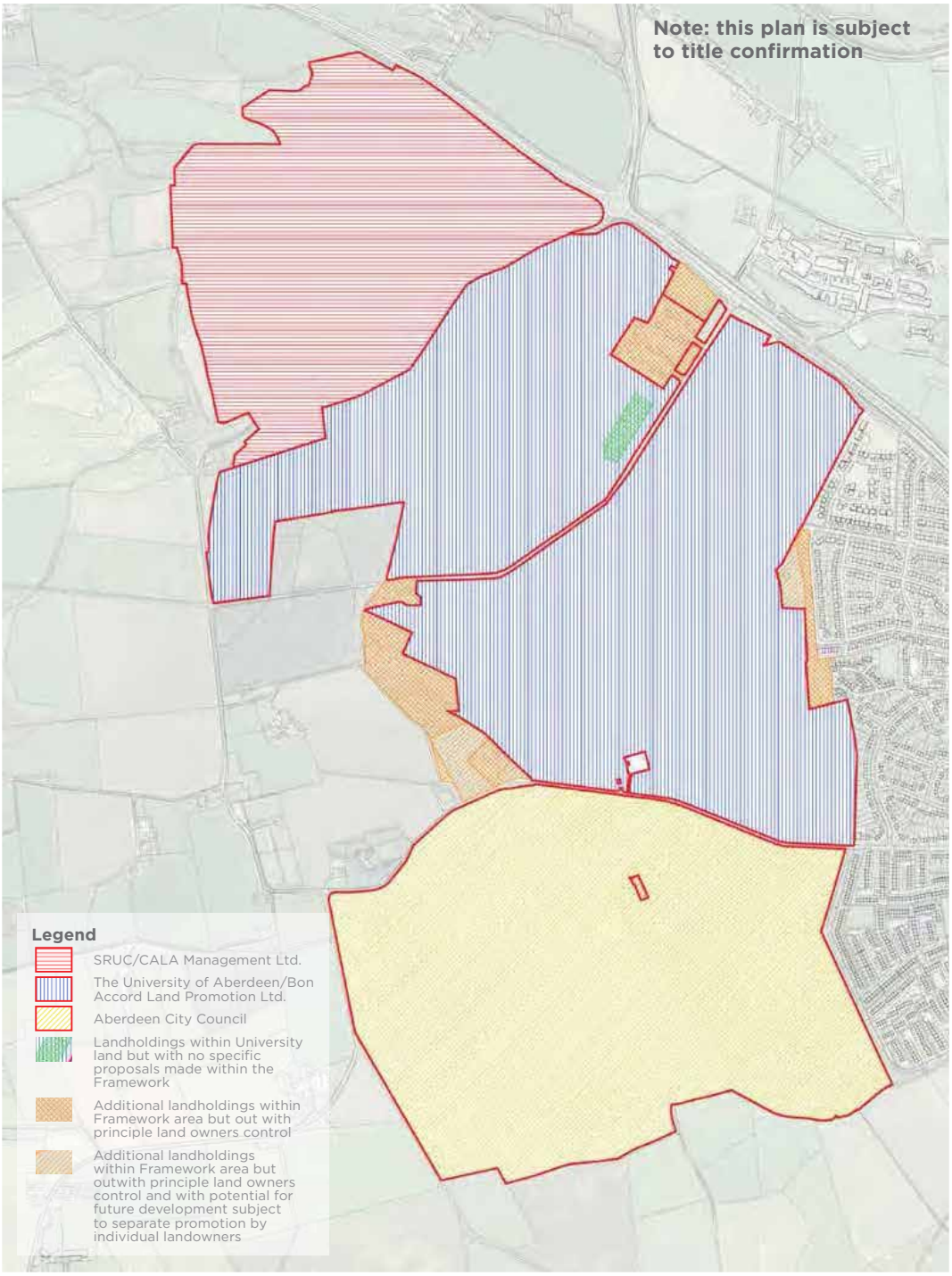


fig. 7: Land ownership / promoter

2.4 Existing land uses and buildings

Across the Development Framework area, most of the existing land uses are expected to change substantially as development progresses. This applies mainly to the predominant agricultural uses rather than the existing residential uses of which the majority will be retained. There are specific land uses and buildings within OP20 which relate to the existing functions of the SRUC which are to be retained and consolidated. The Masterplan process for Craibstone South which has been carried out prior to, and in parallel with, the Development Framework process has established the extent of this retention and further detail is set out below.

2.4.1 OP20: SRUC Retained sites

SRUC will maintain a presence at Craibstone on a smaller consolidated Campus, located around the Ferguson Building, the land will be designed to be an integral part of the wider development opportunity at Craibstone and Newhills. It is believed that the students, education and office staff will help support the village model at Craibstone whilst continuing to enjoy the location within Craibstone Estate.

The Development Framework has been developed to allow for the retained SRUC facilities, identified opposite, to be included within the development proposals. The proposals have been developed in discussion with SRUC and CALA to ensure both parties are happy with how the facilities are integrated within the layout and to mitigate against any potential land use conflicts.

A number of existing buildings and associated land form a large part of the site area and importantly, define the core areas of the site. The location of the buildings are intrinsic to the Estate structure and as such will inform the character and structure of the proposals. The plan here identifies the existing buildings and associated land areas within the Campus. The existing buildings include:

1. The Farm
2. Doig Scott (to be retained)
3. Stable buildings (to be retained)
4. The East Lodge (to be retained)
5. Staff accommodation/cottages
6. Maintenance facilities/workshops and offices
7. The Cruikshank building (to be retained temporarily)
8. Student accommodation
9. Refectory and SRUC teaching facilities
10. Ferguson Building (to be retained and renovated)
11. Plant nursery
12. Existing cottages
13. Workshops

Buildings to be Retained
Ferguson Building

Area - Ferguson Building (35,641sqm)

The area is sufficient to accommodate the existing Ferguson Building as a site for a consolidated SRUC Campus including car parking and the landscape setting. New facilities such as student halls of residence, an engineering shed, a FM workshop, research and external buildings and associated car parking could be accommodated within the area identified to be retained.

Further details of what is to be provided within the SRUC site are contained on the following page and in section 4 of this Masterplan.

Cruikshank Buildings

SRUC wish to temporarily retain the use of the Cruikshank Building. The contract provides for partial retention of the Cruikshank, however practically a wider area will be required to be retained, including the balance of the building and immediate grounds. The plan shows the temporary occupation extent. How this area will be retained has been considered as part of the Masterplan and is part of the indicative phasing strategy.

Development will not be considered in this area until 2 years post commencement of development by which time SRUC will not require the land to be retained and it can be considered clear for development.

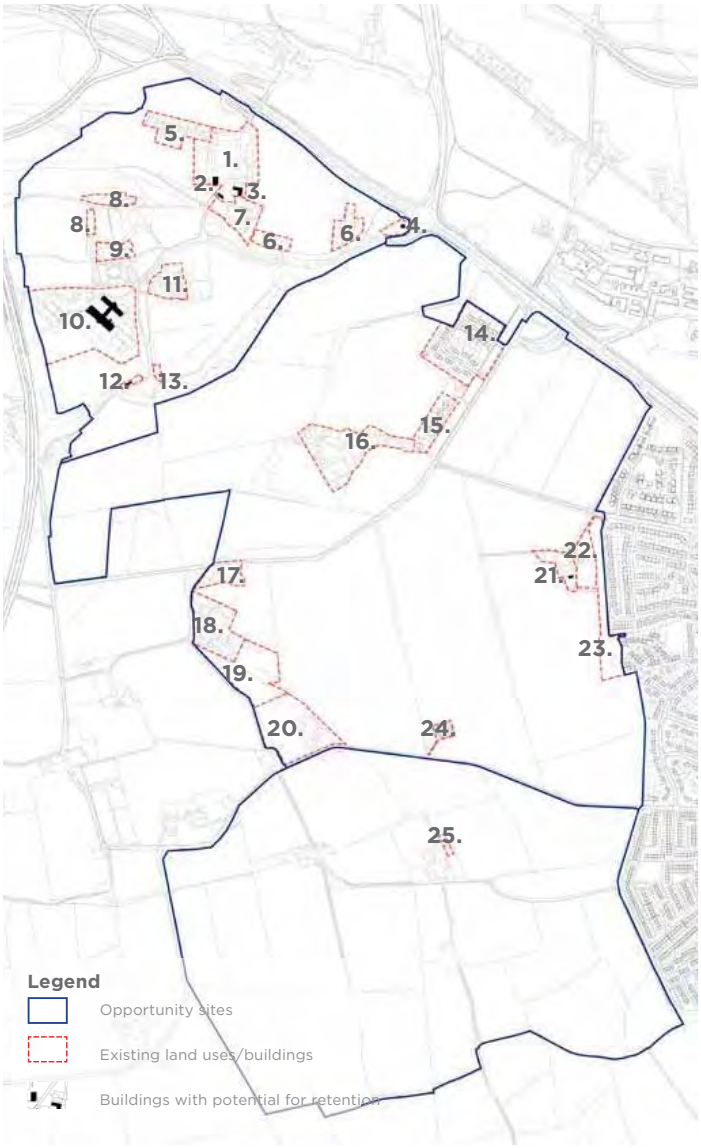


fig. 8: Existing areas and buildings

2.4.2 OP21 and OP22: Other buildings/areas

14. Forrit Brae. Residential housing area to be retained and integrated.

15. Eastside Gardens. Residential housing street to be retained and integrated.

16. Eastside Farm.

17. Existing individual properties. To be retained and landscape buffer provided.

18. Christie Grange. To be retained and landscape buffer provided.

19. Individual landholdings. No proposals within Development Framework, however this does not preclude future residential development of 'very low' density which fit with the character of the context.

20. Bucksburn Nursing Home. To be retained and integrated.

21. Hope Farm. Existing house has potential for retention. Surrounding land included within development block.

22. Hope House. To be retained and integrated.

23 Open space adjacent to Hopetoun Terrace. To be retained as open space. No development proposals.

24. Reservoir. To be retained and landscape buffer provided.

25. Netherhills. To be retained and integrated into Framework.

2.5 Evolving context

2.5.1 Aberdeen Western Peripheral Route

The Aberdeen Western Peripheral Route (AWPR) is a new road being developed to improve travel in and around Aberdeen and the North-east of Scotland. It is designed as a dual carriageway which will provide an alternative route from north to south Aberdeen, bypassing the city. Construction is due to commence in 2014 with a target completion by 2018.

The main part of the route follows an orbital alignment around the city to the west, with interchanges with the A93, A944, A96, A947 and A90 to the north of the city at Blackdog and planned to connect with the A90(T) at a replacement A956 interchange at Charleston to the south. It is projected to carry over 43,000 vehicles per day over its busiest section.

Following completion of the AWPR the present trunk road network within the city will be de-trunked. However, some existing routes are likely to remain 'Major Urban Roads' where the traffic and movement function will continue to dominate. It is also intended to use freed up road-space on these existing routes for walking, cycling and public transport opportunities as well as to improve public realm."

The main road will be dual carriageway with two lanes in each direction, except for the section between North Kingswells Junction and Craibstone Junction, which will be three lanes in each direction. Access to the route will be possible at the following junctions, which, in order from south to north, are located at:

- Stonehaven (A90);
- Charleston (A956);
- Milltimber (A93);
- South Kingswells (A944);
- North Kingswells;
- Craibstone (A96);
- Goval (A947/B977); and
- Blackdog (A90).

The planned route passes by the western boundary of OP20 and there are a number of associated infrastructure works which will be carried out as part of the AWPR mitigation to deal with severed routes. This includes new and alternative pedestrian/cycle/equestrian route, particularly along the north-east and north-west boundary of OP20. A full junction onto the A96 is located north of Craibstone.

2.5.2 Land at Hopecroft

Following the completion of a Planning Brief ("OP20: Hopecroft Planning Brief") a detailed planning application has been submitted for "development for 65 residential houses including infrastructure and landscaping" at land north of Hopetoun Grange (planning application number P130029). The 3.3 hectare site is currently in agricultural use and lies within a residential area. The ALDP identifies the site as OP20 Hopecroft. It is not part of the Newhills Expansion Area, however as the land is currently owned by The Rowett Research Institute there is an agreement in place that access can be utilised through the site to the Newhills area to the west. The land is under offer to Persimmon Homes Limited subject to various standard contractual obligations being discharged. This application was granted a willingness to approve with conditions, subject to the applicant entering into a legal agreement with the Council, at Development Management Committee on 26 September 2013.

2.5.3 Craibstone North

Craibstone North (OP26) has been identified along with Walton Farm for 20ha of employment land (1.5ha between 2007 and 2023 and 18.5ha between 2024 and 2030). A combined Development Framework is required for Craibstone North, Walton Farm and Rowett North.

2.5.4 Dyce Drive Masterplan

A new international business park delivering c750,000 square feet of commercial, industrial and hotel development is proposed on the site adjoining Aberdeen International Airport.

2.5.5 Park and Choose

As part of the AWPR, works the location for a new Park and Choose site is identified within the ALDP to the north of the A96(T).

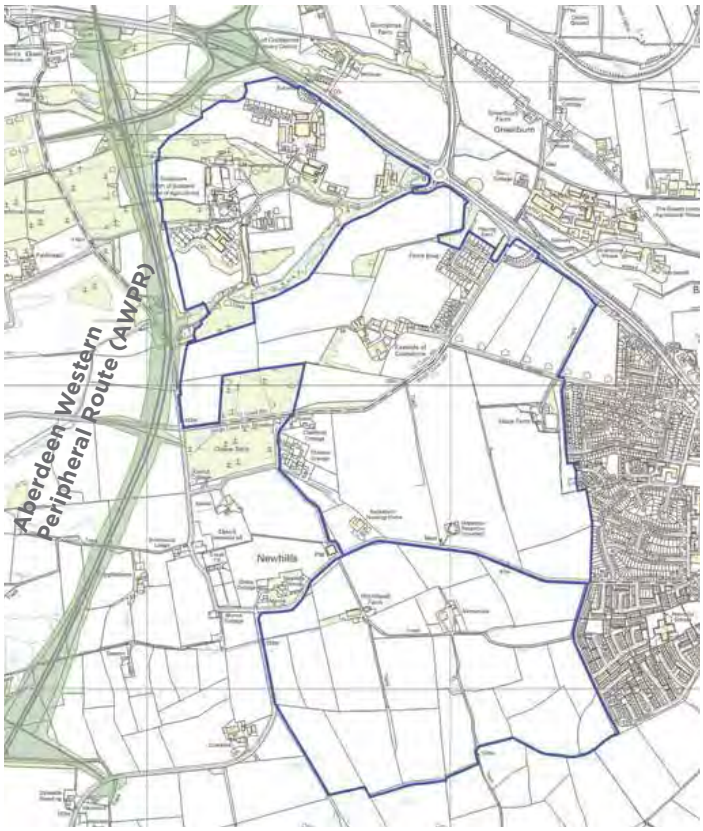


fig. 9: Expansion area and opportunity sites in context of AWPR

fig. 10: Craibstone Estate pre AWPR.

fig. 11: Craibstone Estate post AWPR.

2.6 Historic development

An analysis of historic Ordnance Survey maps shows that there are a number of landscape elements which have been in place within the Newhills expansion area for a significant period of time. These include the policy woodland areas of Craibstone estate which have been in place for over a century and other related shelterbelt planting bands. Key road infrastructure follow largely the same alignments today.

The most visible changes have been the development of urban areas, predominantly in the construction of Bucksburn to form an urban edge to the east of the site. Watercourses which were recorded routing through these areas have been culverted or otherwise manipulated to run in man-made channels. The plotting of these watercourses in open fields has been omitted which perhaps reflects changes in drainage patterns as agricultural methods have changed over time. Other changes reflect ongoing improvements and modernisation of the road network and a reduction in the number of working farmsteads and growth of remaining farm areas.

Originally designed to provide a setting for Craibstone House, the Craibstone Estate then provided a base for the North of Scotland College of Agriculture and subsequently the SRUC. As a requirement of their function SRUC have added buildings, roads and various other features to the site whilst maintaining and managing the Estate landscape to a consistently high standard over the years.

fig. 13: OS 1959

fig. 14: OS 1987

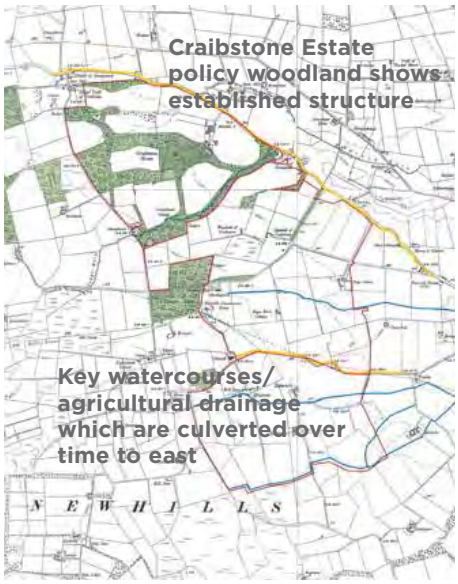


fig. 12: OS 1899

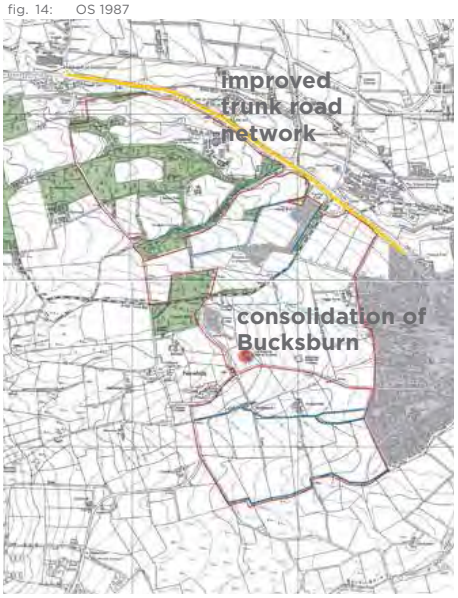


fig. 15: OS 1995

2.7 Site Analysis and Existing Character

2.7.1 Setting and character

The site falls within Wooded Farmland and Open Farmland Landscape Character Types identified in the SNH Landscape character assessment of Aberdeen (1996). Due to the large scale of the site, the setting and character is influenced by a number of elements relative to specific boundaries and edges. The A96(T) forms a strong boundary to the north-east and separates the site from industrial uses to the north clustered around the Aberdeen International Airport. The existing woodland areas at Craibstone (including Ancient Woodland) has a strong influence on the character of OP20 in particular, but also provides a visual backdrop to the north for views within OP21 and OP22.

Brimmond Hill is an important setting to the west and the associated landforms of Elrick Hill and Tyrebagger Hill act to form long distance boundaries. The ridge formed by Fernhill defines the visual boundary to the south although there overall character in this direction is most strongly influenced by the existing agricultural uses which continue outwith the site. Hard edges are formed by urban development at Bucksburn which creates boundaries to the west. These are softened in places by significant and established tree avenues and woodland blocks, particularly around Hopetoun Grange.

OP20 sits within an established woodland structure and is naturally well contained with views into the Craibstone Estate limited to those from the A96(T) which forms the northern boundary to the site area.

Open views from surrounding areas to the north are restricted to the northern boundary of OP20 where open fields meet the A96(T). These views into the site are limited due to the topography rising from east to west restricting clear views into the site.

The eastern boundary of the site, from the minor road link to the south to the A96(T), which abuts the adjacent agricultural land of OP22 is well defined by a woodland corridor through which the Gough Burn passes. This edge is further defined by the steep sided burn corridor.

The western edge to the north is currently clearly defined by policy woodland; however this will be severed by the alignment of the AWPR and will open areas of the site to external views if not replanted. Along most of this edge the topography (and proposed levels of the AWPR) will further restrict views into OP20 and maintain the existing enclosed character. The AWPR will ultimately form a robust boundary to the west, with views into the site restricted by the topography and woodland.

2.7.2 Aberdeen International Airport

The Newhills Expansion Area is within the 13km safeguarding radius of the Aberdeen Aerodrome indicating the need for consultation with the aerodrome regarding the development. Any development will have to conform with BAA Safeguarding restrictions in relation to bird strike risks. This includes consideration of appropriate tree species and planting design, water bodies and watercourse treatments and other detail.

The Aberdeen International Airport 2013 Master Plan has recently been published which follows the publication of a draft Master Plan in April 2012. The document sets out how Aberdeen International Airport is expected to grow in the medium and long term and sets the airport's requirements in the context of the wider area.

The impact of Aberdeen International Airport noise is a consideration of the Airport masterplan in order to minimise and mitigate the effects of aircraft noise on surrounding communities. Noise contours are an industry standard method for illustrating aircraft related noise exposure and the CAA have prepared updated maps for the airport detailing existing and indicative noise contours. These are extracted on this page in relation to the Newhills Expansion Area.

fig. 17: Aberdeen International Airport. Noise contour 2020 (forecast)

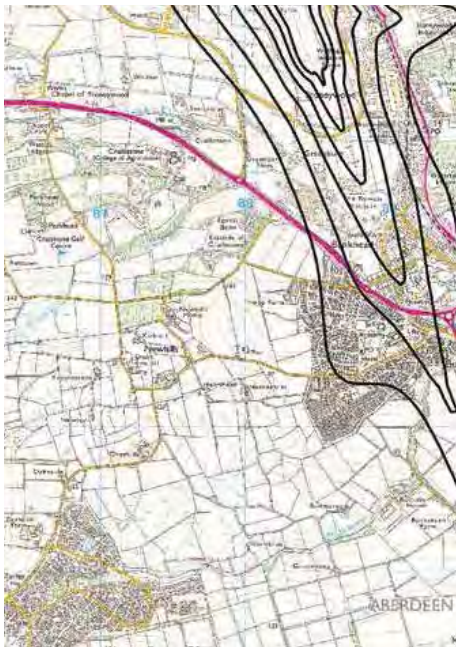


fig. 18: Aberdeen International Airport. Noise contour 2040 (forecast)

fig. 16: Existing site characteristics

2.7.3 Character analysis

The diagram opposite illustrates the key characteristics and defining character elements which fundamentally influence the respective parts of the Newhills Expansion Area. These various components act to form various discrete landscape compartments which cross land ownership boundaries and break the overall area into particular identifiable 'pockets'. Whilst viewed from distant viewpoints, the site (apart from the enclosed pockets of Craibstone) appears to be fairly continuous, however within the site itself there are definite contained landscape cells which are formed at ground level by topography and structural woodland areas. The local valleys formed by watercourses and dry streambeds are also distinctive components around which landscape compartments are centred.

A summary of the key components is set out below:

Transportation corridor

The A96(T) exerts a strong influence along the north-eastern boundary of the area, forming a barrier to the north. A number of underpasses are in place along its length, which afford some permeability northwards, however in general it is a strong barrier.

Rural edge

Once development occurs within the framework area, the existing rural character at various locations along the western edge will be important in order to form a distinct rural edge. In particular this is apparent at points with expansive views to Brimmond Hill to the west and to Fernhill ridge to the south.

Local valley

A number of watercourses and dry stream beds form a series of largely parallel 'local valleys'. These act strongly to shape spaces within the area and give the overall character of corrugated ridges and valleys.

Landscape structure

Mature policy woodlands and established structure planting is evident on the site and both act to strongly influence the character of the site. To the north within the Craibstone estate, these areas of woodland contain smaller scale pockets of open space. Within the central part of the site, structure planting along transport corridors and field boundaries forms more linear pockets of open space. Structure planting is largely absent south of Kepplehills Road.

Landscape compartments

The elements above combine to form distinct landscape compartments which suggest where development might be most sensitively accommodated and those areas which are appropriate for structuring open space.

2.8 Drainage and Hydrology

2.8.1 Watercourses and drainage

Several watercourses and drainage channels run through the framework site and they are identified opposite. The Gough Burn is the most significant in scale and runs within the southern boundary of OP20. Other watercourses generally show evidence of modification over time due to agricultural functions and these are confirmed in the historic maps. All other watercourses/ drainage channels are unnamed and are usually associated with either site boundaries, road infrastructure, historic structure planting or field boundaries. There is evidence of seasonal drainage routes which flow in periods of heavy rain but are otherwise dry channels.

2.8.2 River Basin Management Plan

The North East Scotland Area Management Plan supplements the River Basin Management Plan for the Scotland river basin district 2009-2015. The plan outlines a range of aims, objectives and local actions focused on maintaining and improving the ecological status of the rivers, lochs, estuaries, coastal waters and groundwater bodies in northeast Scotland.

The plan is produced by SEPA in partnership with the North East Scotland Area Advisory Group. The Advisory Group is made up of a number of interested stakeholders including local authorities, government agencies and large companies, all of whom have a vested interest in improving the quality and ecological status of the local water environment. The Plan includes a target of 98% good ecological status by 2015.

The development proposals seek to contribute to this target by ensuring that a framework for the site is informed by baseline information (which includes the North East Scotland Area Management Plan, Water Framework Directive and the River Basin Management Plan) as well as ecological surveys undertaken in respect each site in the Development Framework area. The construction methodology and programme will be arranged to minimise adverse impacts on the water environment and biodiversity of the site; including its environmental quality, ecological status and viability. It is noted that the River Don is currently classified as a 1a water body. A number of water courses exist on site including the Gough Burn which feeds into the Green Burn. The Bucksburn which is an important tributary in the lower courses of the River Don is located south of the site.

Due to the development's proximity to the River Don and the Bucksburn, the Development Framework has reviewed the principles, aims and objectives of the relevant Area Management Plan and used this information to inform the development design. SUDS design will be informed by a technical assessment, as well as the key area management plan principles. It is noted that the current status of the River Don (Dyce to Tidal Limit) and the Bucksburn are classified as having 'moderate' status. Within the first cycle of Framework Directive there is an objective to increase the status of the water bodies to 'good' status by 2015. However, if it is not possible to meet the required standard by 2015 and subsequently 2021, the target has to be met by 2027.

Although the site does not lie within the catchment of the River Dee SAC, water to supply the proposed 4400 new houses will be abstracted from the River Dee. Reductions in river water levels can have impacts on freshwater pearl mussel one of the qualifying features of the SAC, therefore there is connectivity between this development framework and the SAC. Water Saving Technologies and Water Efficiency will be incorporated within the development and further detail on this topic will be provided within the relevant Masterplan for each site.

A Water Efficiency Statement will be required in each subsequent planning application detailing the measures employed to demonstrate that they would not have a significant effect on the qualifying interests.

2.8.3 Buffer strips

ACC Supplementary Guidance "Natural Heritage" gives guidance on best practice definition of an area of land adjacent to watercourses which is to be maintained in permanent vegetation. Buffer strips are defined in order to control soil and water quality as well as provide other environmental benefits including the promotion of biodiversity and improvements to run-off. The SG proposes that buffer strips should be a minimum of 6m wide and proportional to the bed width of the water body.

2.8.4 Flood risk

The Gough Burn between OP20 and OP21, is a minor watercourse not featured on the SEPA flood map. In the absence of indicative flood information, site

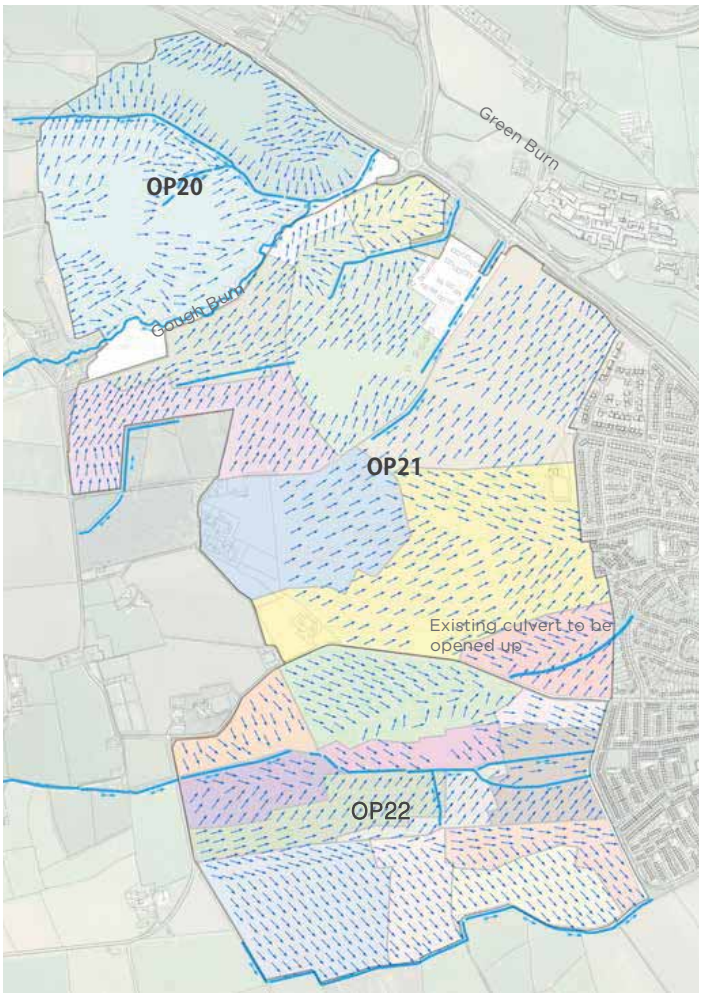


fig. 19: Existing site run-off directions and drainage catchment areas

observations have therefore been made and it has been concluded that the relatively steep topography assists in confining minor watercourse flows within or very close to the banks. No obvious potential for out of bank flows were detected from a walk-over survey. Baseline conditions do not therefore identify locations where potential flooding may constrain built development, but in any event biodiversity requirements adjacent to minor watercourses will create protected open space in accordance with Aberdeen City Council's Buffer Strips Guidance.

Topography of the proposed development areas also generally displays very distinct gradients with an absence of low lying areas, but with noticeable valleys running across all areas, generally in a west east direction. Whilst these provide natural locations for drainage, they may also attract surface water run-off from adjacent areas or undeveloped areas of higher elevation than previously built phases. Therefore detailed design will consider the potential for the influx of overland surface flows from the predominantly agricultural ground which rises consistently in a westward direction. Land drainage, provided on a temporary basis, will be designed into individual phases of development to protect against overland flooding. These temporary measures will only be adequate if temporary attenuation is provided, unless of course the permanent SUDS measures referred to in Chapter 5 can be utilised. Therefore a feature of controlling potential overland flows will be attenuation, in addition to the more basic requirement to intercept and collect these flows by conventional means such as ditches and French drains.

In addition to potential flows arising from higher ground within the developable areas, on-site observation assisted by valuable local knowledge have identified very definite overland flows emanating from the wooded area on the higher ground at the west end of Forrit Brae. These surface flows originate on the even higher ground around Brimmond Hill and although they are to some extent contained west of the Kingswells to Craibstone side road, there is visual evidence that they cross this road in extreme conditions and may enter the developable area at its western boundary in the vicinity of Forrit Brae. It is therefore proposed to incorporate collection and attenuation features, particularly just within the western boundary of OP21 (Rowett South) in order to capture and attenuate these flows.

It is anticipated that a detention basin will provide primary attenuation and it is likely that a grass swale will be used, at least in part, to convey the attenuated flows in a safe and aesthetically acceptable manner on their downward path through the drainage system and to an eventual outfall.

2.9 Topography

2.9.1 Topography analysis

The site is characterised by generally east-facing slopes which fall from high points towards the vicinity of Brimmond Hill down towards the larger-scale corridor of the River Don. Outwith the site boundaries, Fernhill ridge acts to visually contain the area to the south and the local hills of Brimmond, Elrick and Tyrebagger contain to the west and north-west. Local stream corridors and associated separating ridges drain eastwards towards the Don and form a corrugated landscape which displays a number of steep north and south-facing small-scale slopes. Historically, shelterbelt planting and policy woodland areas have been planted on many of these steeper areas, although there are a number of areas within open fields where gradients greater than 10% are apparent.

There are examples of field boundaries running both across and with the slope; a clear pattern of fields run down towards the A96(T) within the Rowett South land, however elsewhere and particularly in the Greenferns Landward site, field boundaries run across the slope.

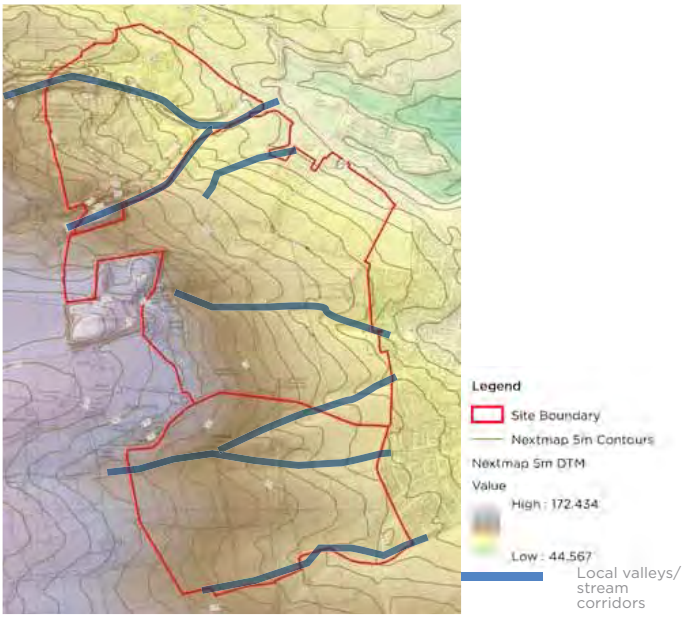


fig. 20: Topography

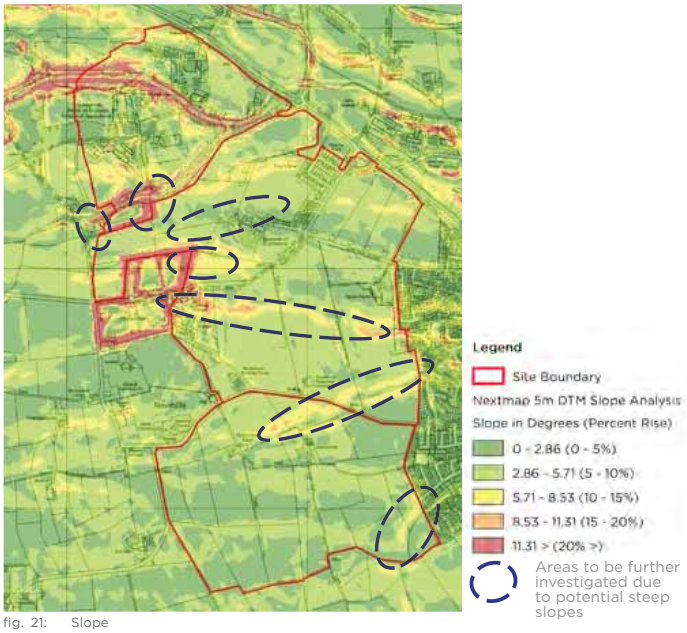


fig. 21: Slope

2.10 Open Space designations

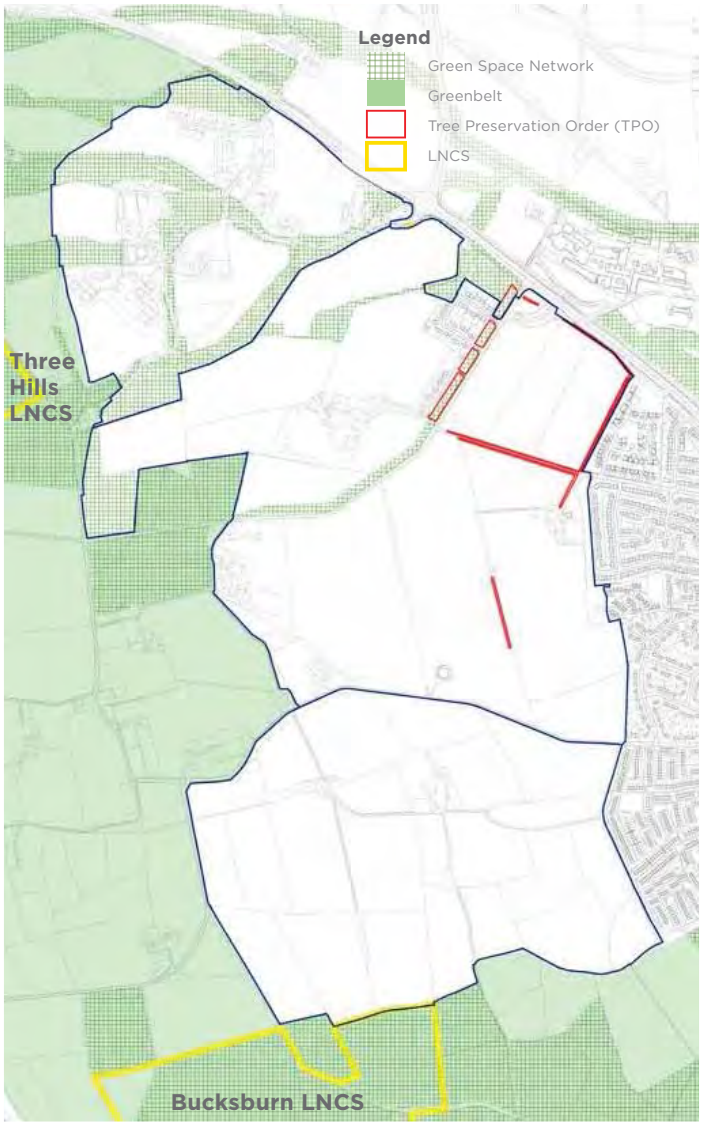


fig. 22: Open space and Green Belt designations

2.10.1 Green Belt

The diagram opposite illustrates the various designations defined in the ALDP relating to Open Space. The green belt wraps around the full length of the western and southern boundary of the framework area.

2.10.2 Green Space Network

Areas identified within the ALDP Green Space Network (GSN) are identified in OP20 and OP21. The areas identified generally reflect existing woodland resources and mature structure planting. Section 5.5 sets out the proposals for the Green Space Network.

The ALDP states: "The Green Space Network, which overlays Open Space, Green Belt, Natural Heritage and other policies, indicates where greenspace enhancement projects could be focused. Masterplanning of new developments should determine the location and extent of the Green Space Network within these areas."

The existing Green Space Network areas within the Newhills Expansion area are mainly defined as 'Core' components although there are also a number of 'Link' components which describe existing or desirable corridors of green space linking other green spaces together. The Landscape Framework section of Chapter 5 sets out the proposed strategy for the Green Space Network.

2.11 Existing trees and woodland

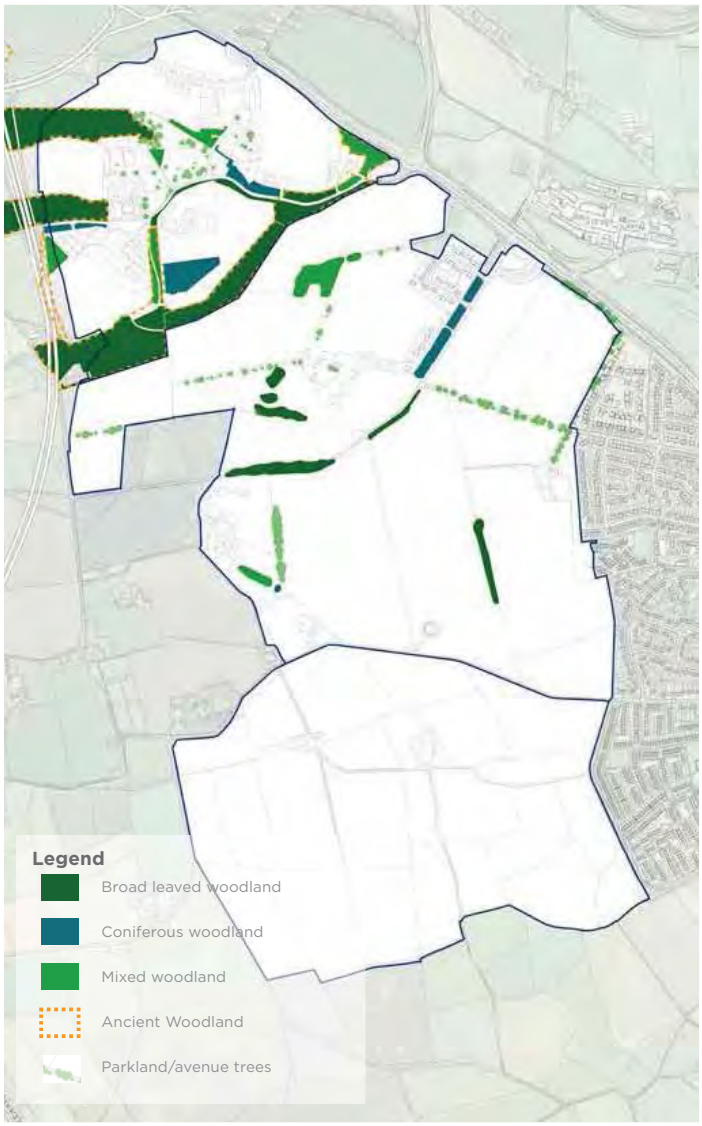


fig. 23: Woodland areas and tree survey results

A key element of the site which has shaped its form and character is the existing woodland structure, particularly within the northern part of the Development Framework area. The northern half of the site is a complex mosaic of woodland areas and open agricultural fields which comprise almost entirely improved grassland and arable fields. Woodland areas include broad-leaved, mixed and coniferous types, all of which is plantation although much of it, particularly along the watercourses, is very mature in structure.

Areas of existing woodland provide containment and strong boundaries to the areas they enclose; they create the structure to the site, defining the edges, field boundaries as well as the parkland and driveway setting of OP20. Also within OP20 are areas of plantation woodland which are not considered important to the structure of the site and are of limited ecological and amenity value.

The woodland is an asset to the site as its structure provides:

- Containment;
- Boundaries;
- Shelter;
- Habitats and ecological networks;
- Attractive Setting;
- Amenity/woodland walks; and
- Sense of place.

The woodland structure should be retained to inform the framework for any subsequent development.

2.11.1 OP20 Habitat Survey

A Phase 1 Habitat survey has identified the following woodland types within OP20:

Broad Leaved Plantation Woodland

There are a number of areas of broad-leaved woodland found mostly along the line of watercourses on site. Both the Gough Burn and the Green Burn are lined by broad-leaved trees which are of high ecological value as they provide numerous feeding, roosting and nesting opportunities for mammal and bird species. A Habitat Action Plan for riparian woodlands is included within the NESBP LBAP highlighting the importance of this habitat type in the region. Also, the presence of Quercus (oak) species which are included on the Scottish Biodiversity List further increases the ecological value of the woodland areas.

The two main stands of broad-leaved woodland on site lie along the Gough Burn and the Green Burn, both of which are dominated by Fagus sylvatica (beech).

Coniferous Plantation Woodland

Three main areas of coniferous plantation are found on site. Two are areas of mature plantation with one area of young plantation. The areas are dominated by Picea sp. (Spruce) with occasional Pinus sylvestris (Scots pine). This habitat is neither a LBAP nor UKBAP habitat. There is a very limited understorey with occasional fern species.

Mixed Plantation Woodland

Much of the woodland found on site is a mix of broad-leaved and coniferous tree species. It mostly comprises the broad-leaved species listed above with occasional spruce and pine species. The woodland along the entrance drive to the site is mixed and contains some mature specimens. Many of the species are non-native exotics, the best examples of which can be found in the arboretum.

Parkland trees

Within the core of the site and some of the existing areas of amenity space there is a variety of mature parkland trees which should be retained where possible and managed accordingly.

Ancient woodland

Some of the areas of woodland are classified as Ancient Woodland, highlighted on figure opposite. These woodland areas form part of the landscape structure of OP20 and will be retained where possible.

2.11.2 OP21 Tree Survey

A tree condition survey and constraints report has been completed for OP21. The site is currently under agricultural use, and the fields actively managed as pasture or for arable crop production. Tree cover is relatively sparse and scattered given the total area of land involved. This tends to occur as long, linear strips which follow field boundaries and road edges. Individual, mature trees are noticeably concentrated within three separate areas. These are:

- Hopetoun Grange, Lovers Lane and the A96 (north east of the site). Mature beech trees lining the roadway and paths.
- To west of Easter Craibstone Farm. Lines of mature ash trees along field boundaries.
- East of Christie Grange (south west of site). Line and avenue of mature beech.

Wooded belts and strips are scattered throughout the site. These tend to occur as linear belts along field boundaries.

2.11.3 Tree Preservation Orders

There are a number of Tree Preservation Orders (TPO) in place across the framework area. These predominantly relate to the mature trees along Hopetoun Grange, 'Lover's Lane' and the structure planting along the minor road at Forrit Brae. A significant line of trees marking a north-south field boundary within OP21 is also subject to an Order. A tree survey has been carried out on OP21 and has informed the proposals for that particular opportunity site.

These trees and other areas of woodland contribute to the overall character and identity of the area and there is a presumption in favour of their retention. The Landscape Framework section of Chapter 5 sets out the proposed strategy for existing trees and woodland areas.

2.12 Environment

2.12.1 Approach and environmental factors

Consideration of environmental factors has been fundamental in preparing the Development Framework for the Newhills Expansion Area. Work which has been undertaken to date includes tree surveys, environmental screening and scoping, environmental site audits and species and habitat surveys, however, the work completed varies across each constituent site of the Newhills Expansion Area. The environmental strategy for the Development Framework is based on integrating environmental considerations into the preparation of the Framework. The key environmental considerations are as follows:

- Protection and enhancement of biodiversity capital on the site e.g. tree belts, hedgerows and habitat relative to protected species interest and landscape features. Protection of Bucksburn LNCS to the south of the site boundary and the Three Hills LNCS to the west of the site;
- Surveys for protected species have been, or are currently being progressed. Full ecological surveys will include a Phase 1 Habitat Survey, protected species surveys (inclusive of badger, bat, otter, water vole, red squirrel, breeding and wintering bird surveys). These surveys will need to be undertaken to fully inform the masterplan/ PPiP stage of each site in the Development Framework area. Ecological Surveys undertaken in respect of Craibstone South are currently being updated; for Rowett South a full suite of surveys are being undertaken in respect of the determined EIA requirement; in respect of Greenferns Landward full ecological surveys will need to be undertaken to inform any subsequent masterplan/ PPiP application;
- Protecting and enhancing landscape and visual amenity. The Development Framework seeks to retain, where possible, features of the site that contribute to the local landscape character and quality. Elements include boundary walls and planting. The orientation of the proposed development blocks will seek to respect topography and existing views from key viewpoints including Brimmond Hill to the west, and existing residential developments at Bankhead and Bucksburn, as well as the allocation for development at Grandholm to the east;
- Protection of Bucksburn/Greenburn, Gough Burn and unnamed watercourses on the site and wider water environment including the River Don as well as groundwater considerations. Sustainable Urban Drainage (SUDS) elements have been included within the Development Framework, which will ensure the development maintains and enhances water and ecological quality, while working towards the obligations under the Water Framework Directive for key water bodies;
- Need to connect the site with existing recreational assets of Brimmond Hill, Elrick Hill and Tyrebagger Hill and settlements at Bucksburn & Bankhead with the view to establish connectivity for recreation and access including greenspace connections and linkages to wider pedestrian and cycle networks; and
- Proximity to Aberdeen International Airport and the Aberdeen Western Peripheral Route are important considerations (in terms of noise and vibration and air quality) for the proposed design and layout. Access and circulation will also be important considerations for the Newhills expansion as will the potential impacts of traffic generated by the proposed development.

This approach ensures that the Development Framework has highlighted the environmental issues and opportunities for developing the Newhills Expansion area (and its constituent sites OP20, OP21, and OP22). Further detailed environmental assessment for each of the OP sites where required has/ will be undertaken as part of the respective applications for planning permission.

2.12.2 Environmental Baseline Information

There are a number of national, regional and local policy guidance and legislation sources which has informed the Development Framework and environmental strategy:

- North East Scotland Local Biodiversity Action Plan (NESBAP)
- Relevant Aberdeen City Supplementary Planning Guidance
- Aberdeen City Council's Local Transport Strategy (2008 – 2012)
- The Conservation (Natural Habitats etc) Regulations 1994
- Wildlife and Countryside Act 1981, as amended
- Nature Conservation (Scotland) Act 2004
- Wildlife and Natural Environment Act 2011
- United Kingdom Biodiversity Action Plan (UKBAP)
- Scottish Executive: Scottish Biodiversity Strategy 2004-2029
- North East Scotland Biological Records Centre
- SNHi Mapping
- RCAHMS Pastmap and Information Sources
- Aberdeen Core Paths Plan

2.12.3 Designated Sites

There are no statutory designated sites located on or in the vicinity of the site. There are 2 locally designated sites that have been considered as part of the Development Framework:

Three Hills LNCS

The Three Hills LNCS is located immediately west of the Development Framework area. The LNCS boundary runs adjacent to the boundary of the Craibstone South site. It incorporates the old boundaries of the Gough Burn, Brimmond Hill, Elrick Hill and Tyrebagger Hill. The Three Hills form a significant landscape feature to the west of Aberdeen and Brimmond Hill Country Park is located within the LNCS.

Bucksburn LNCS

Bucksburn LNCS is located south of the Development Framework area with part of the LNCS sharing a boundary with the Greenferns Landsward (OP22) site. The LNCS envelops the former Bucksburn Gorge Boundary and the Burnbrae Moss Boundary. The Bucksburn is one of the main tributaries of the River Don and is an important water body in terms of ecology and the water environment.

2.12.4 Strategic Environmental Assessment

Each strategic land allocation was assessed as part of the Strategic Environmental Assessment process that accompanied the adopted Local Development Plan.

Site	Summary of SEA Assessment Findings
OP20 Craibstone South	Part of a larger proposal. Need to address air, water, material assets, population, human health and biodiversity. There are watercourses running through the site, Category B and D Flood Risk, and it could be vulnerable to future climate changes. A Masterplan is required.
OP21 Rowett South	Proposal could impact on biodiversity. Development may impact negatively on the setting of Brimmond Hill and result in negative effects on landscape. This site is a Flood Risk category D site and it could be vulnerable to future climate changes. A Masterplan is required.
OP22 Greenferns Landward	This is a large proposal that could have significant impacts. Development may have a detrimental effect on local landscape particularly the landscape setting of Brimmond Hill. A Masterplan is required. *

*Text amended from the Environmental Report.

On all three sites, potential negative effects have been identified as a result of the SEA process, particularly in relation to impacts on water, biodiversity, climatic factors and air quality, landscape, material assets and human health and population. The Development Framework will take cognisance of the findings of the SEA process in respect of the site and mitigation measures will be applied as appropriate. This will include SUDs treatment to reduce potential flooding as a result of increased climate variability; sensitive siting and design in relation to the location of important species and habitat including surrounding LNCS, a design that encourages landscape enhancement and promotion of active modes of travel to replace vehicular travel dependence.

2.12.5 Environmental Impact Assessment Requirements

The requirements for formal project level environmental assessment to support future planning applications for each of the sites within the Newhills Development Framework area have or are yet to be determined and agreed with Aberdeen City Council and statutory consultees.

Aberdeen City Council has determined that an EIA is not required in respect of OP20 Craibstone South (Screening Decision 15th June 2012). However, ACC requested further information in terms of transport assessment, Design and Access Statement and if necessary, a noise assessment in respect of development on the site. The PPiP application will be supported by appropriate supporting reporting reflecting site sensitivities.

In respect of OP22 Greenferns Landward, the requirement for an EIA will need to be determined at or before PPiP stage. Aberdeen City Council determined EIA is required for OP21 Rowett South (Screening Decision 1st November 2013) and an Environmental Statement will be submitted with an application for Planning Permission in Principle for this site.

2.13 Environmental Considerations for the Development Framework

2.13.1 Geology and Soils

No significant constraints/ interests have been identified in terms of geology or soils e.g. contaminated land. The Development Framework proposals have been informed by site topography, site history, review of ground conditions and likely cut and fill requirements. Detailed OP site layouts will need to incorporate appropriate earthworks strategies, sustainable drainage and will implement landscape planting in line with the landscape strategy in the Development Framework. Further specific assessment relative to ground conditions will be produced for each of the OP sites as required for any subsequent planning applications.

2.13.2 Land Use Change

The proposals within the development represent a land use change which includes development on Greenfield land for OP21 Rowett South and OP22 Greenferms. The Craibstone South (OP20) site has a level of former land use in relation to a range of educational buildings on site. Woodland in the form of broad leaved and plantation has been surveyed as part of a Phase 1 Habitat survey of the site and this has informed the proposed development layouts – retention of high quality woodland blocks. There are a range of existing buildings on the sites which will be demolished, where required, as part of the proposed redevelopment. However, a number of buildings within the SRUC on OP20 have been identified for potential retention (as identified in Section 2.3.3) The Development Framework has sought to ensure sensitive siting and design to ensure a layout that has due regard to surrounding land uses including residential dwellings / areas and community facilities. Specific access arrangements and boundary treatments for existing residential dwellings on OP21 and OP22 that are outwith the Development Framework are outlined and will be agreed as part of detailed design at the planning stage for each site , the principles of which have been agreed via this Development Framework.

2.13.3 Ecology, Nature Conservation and Biodiversity

There are no statutory designated areas within, or in the vicinity of the Development Framework area. The River Dee SAC is located approximately 5 – 6 km south of the site. The River Don is designated a Local Nature Conservation Site (LNCS), as is the Bucksburn which is located approximately 1km to the south of the site (recently merged with Burn Brae Moss District Wildlife site). The Three Hills LNCS is located west of the site.

Site	Survey Requirements
OP20 Craibstone South	Ecological surveys have been undertaken which include Extended Phase 1 Habitat Surveys, protected species surveys (including bat, badger, red squirrel, otter, water vole, wintering and breeding birds). These surveys are currently being updated and will be used to inform masterplan/ PPP application proposals for the Craibstone South site.
OP21 Rowett South	Ecological surveys that have/ will be undertaken to include a breeding bird survey, wintering bird survey and protected species surveys (badger, bat, water vole, red squirrel, otter) along with a Extended Phase 1 Habitat Survey. An Ecological Impact Assessment (EcIA) will be produced as part of the EIA requirements for Rowett South.
OP22 Greenferns Landward	An ecological walkover survey including protected species and Phase 1 Habitat Survey was completed for the OP22 Greenferns site previously. Further surveys will need to be undertaken to inform any Masterplan/ PPP application. This will include Extended Phase 1 Habitat Survey as well as the required protected species surveys (bat, badger, red squirrel, otter, water vole, wintering and breeding birds). Additionally, EIA requirements for the Greenferns Landward site will need to be determined via screening and scoping by ACC.

Regarding Craibstone South, bird surveys identified 8 red listed species and 8 species which were amber listed. The site has an active number of bats. There have also been recordings of Badger and Red Squirrel on the site. Updated surveys are currently being undertaken on the Craibstone South Site to inform the Planning Permission in Principle Application.

In terms of Greenferns Landward, there were no European protected species on site although badgers are known to be in the wider area. Habitat is predominantly disrupted due to the agricultural use of the site, and it is likely not be of any intrinsic importance. Wintering birds are the key consideration in terms of bird surveys. Surveys on Rowett South have identified badger activity as well as some bat activity.

The Development Framework has sought to ensure the layout has due regard to biodiversity, nature conservation and specific ecological sensitivities in terms of protecting important habitats and species on site. The Development Framework will seek to establish connections between habitats and green networks in the design parameters. This will include important local features i.e. Three Hills LNCS including the Gough Burn and the Bucksburn LNCS. Further specific environmental assessment relative to ecology and biodiversity will be produced for each of the OP sites as required for subsequent planning applications. This will include full ecological surveys i.e. Extended Phase 1 Habitat survey, protected species surveys (including bat, badger, red squirrel, otter, water vole, wintering and breeding birds) which will need to be undertaken to inform the masterplan/ PPP stage for each site.

2.13.4 Landscape and Visual Impact Assessment

The Development Framework area is predominantly characterised by farmland, sloping in an easterly direction and is a greenfield site with the Craibstone Campus on OP20. The site falls within Wooded Farmland and Open Farmland Landscape Character Types identified in the SNH Landscape character assessment of Aberdeen (1996). The Newhills Area has distinctive characteristics: an open "saucer-shaped" landform on the eastern flank of Brimmond Hill, with fields under pasture and arable production divided by hedgerows and stone field boundaries. There is a clearly differentiated urban / rural divide along the Bucksburn urban boundary to the east of the site. Particular sensitivities arise from views into the site from urban areas including the Grandholm allocation to the east, and from the recreational land uses in the vicinity of the site, for example Brimmond Hill Country Park. The Landscape Framework as part of the Development Framework will seek to minimise potential landscape impacts through consideration of topography, landscape features and views to and from the site whilst maximising future quality of the proposed development in landscape terms. A full Landscape and Visual Impact Assessment (LVIA) will be undertaken with respect to OP21 in accordance with best practice guidance and in consultation with landscape officers within the council. An EIA Screening Exercise for OP22 Greenferns will determine need for detailed LVIA assessment to support future planning application. No further assessment of OP20 Craibstone South is required.

2.13.5 Cultural Heritage

An initial baseline study indicates that there are three B-Listed boundary stones located within the Development Framework area; the incorporation of these boundary markers is to be considered as part of the relevant masterplan for OP21. There are a number of designated sites in the surrounding area including one scheduled monument, twelve B-Listed Buildings, and six C-Listed. There will be a thorough desk-based assessment of known cultural assets, including designated and undesignated buildings and archaeological sites within the entire development area, following which there will require to be targeted field evaluation and, where necessary, historic building recording of any structures that will be altered or demolished. The Development Framework will seek to protect and enhance the historical assets on site as part of the design parameters. Further specific cultural heritage assessment will be produced for OP21 Rowett South as part of the EIA to support planning and may be required for OP22 Greenferns – to be determined through EIA Screening. No further assessment of OP20 Craibstone South is required.

2.13.6 Air Quality

There are three Air Quality Management Areas in Aberdeen: Anderson Drive AQMA includes Auchmill and Howes Road, Wellington Road AQMA, City Centre AQMA, however they are located a considerable distance away the site. It is unlikely that the new residential development will result in any significant impacts on air quality or neighbourhood amenity. The Development Framework incorporates measures to encourage modal shift via public transport connections and footpath/cycle connections to existing settlements at Bucksburn and Bankhead. Further specific air quality assessment will be produced for OP21 Rowett South as part of the EIA to support planning and may be required for OP22 Greenferns – to be determined through EIA Screening. No further assessment of OP20 Craibstone South is required.

2.13.7 Noise and Vibration

Existing sources of noise in the vicinity of the Development Framework area include road traffic on the A96 road running to the northeast, and air traffic associated with Aberdeen International Airport located to the north. Future noise sources include road traffic on the Aberdeen West Peripheral Route (AWPR), which will run to the west of the Development Framework area.

Mitigation measures to reduce road noise impact on the development should include: the site layout, placing noise tolerant building near to major roads providing screening of more sensitive buildings located further into the site; use of bunds to screen the site from road noise.

Mitigation measures for aircraft noise on the Development Framework site are generally limited to effective design of building envelopes to control internal noise levels. However, noise contour maps for Aberdeen International Airport set out in its 2013 Noise Action Plan indicates that the entire Development Framework area is likely to experience aircraft noise level below 57 dB LAeq, 16 hour. UK Government guidance infers that residential communities are likely to be more tolerant of aircraft noise below this level.

Road traffic on the existing A96 and future APWR are likely to generate vibration. Effective mitigation is likely to be achieved through the site layout: placing vibration insensitive buildings nearer to roads with sensitive buildings further into the site. Typically buildings sensitive to vibration are also those sensitive to noise, hence the appropriate site layout of buildings is likely to provide effective mitigation of both road traffic noise and vibration.

Further specific noise and vibration assessment will be produced for OP21 Rowett South as part of the EIA to support planning and may be required for OP22 Greenferns – to be determined through EIA Screening. A noise assessment may be required in OP20 Craibstone South – the layout and existing screening to the A96 and mitigation included as part of AWPR design will be addressed as potential issues.

2.13.8 Pedestrians, Cyclists and Community Effects

There are a number of community uses in the vicinity of the site including Newhills Parish Church and the Bucksburn Nursing Home. Surrounding land uses include the residential areas of Bucksburn and Bankhead. Linkages to recreational areas including Brimmond Hill Country Park have been considered, as will the integration of paths identified in Aberdeen's Core Path Plan, as part of the Development Framework. The Framework also seeks to integrate the new development with the surrounding cycle and walking networks. An assessment of potential impacts on communities and amenity will be produced for OP21 Rowett South as part of the EIA to support planning and may be required for OP22 Greenferns – to be determined through EIA Screening. No further assessment of OP20 Craibstone South is required. Aspirational Core Path 2 (AP2) in the alignment shown will require a pavement on the existing rural road in order to provide a safe route.

2.13.9 Construction Impacts

The potential for construction impacts will be addressed at the detailed stage through Construction Environmental Management Plans (CEMP). An assessment of potential impacts of construction and a Draft CEMP will be produced for OP21 Rowett South as part of the EIA to support planning and may be required for OP22 Greenferns – to be determined through EIA Screening. No further assessment of OP20 Craibstone South is required – a CEMP may be required as part of future planning consent condition. A number of buildings within the SRUC on the OP20 site have been identified for potential retention (as detailed in Section 2.3.3) and demolition. No further assessment of OP20 Craibstone South is required.

fig. 24: Cultural heritage records


fig. 25: March Stone 41

2.14 Archaeology

2.14.1 Response / Information

A baseline survey, comprising a desk-based assessment was undertaken of all sites of cultural heritage interest potentially affected by the Newhills Expansion area in Aberdeen to inform the Development Framework. Sources consulted included:

- GIS data on Scheduled Monuments and Listed Buildings in and around the proposed development area was obtained from Historic Scotland;
- GIS data on the National Monuments Record of Scotland was obtained from the Royal Commission on the Ancient and Historical Monuments of Scotland;
- GIS data on the local Sites and Monuments Record was obtained from Aberdeen City Council;
- Information on Conservation Areas was derived from the Aberdeen City Council website;
- Digital versions of the Pre-Ordnance Survey maps and various Ordnance Survey maps at 1:2500 and 1:10560 scales, held by the National Library of Scotland, were identified online and examined. Relevant maps range in date from the seventeenth to the mid twentieth century;
- Relevant aerial photographs were viewed at the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) in Edinburgh in order to identify any unknown sites or features of archaeological interest: thirteen series of photographs were viewed, ranging in date from 1944 to 1988;
- Readily accessible primary and secondary historical sources were consulted for information on its history and past land use.
- Aberdeen City Council Booklet 'A Guide to Kingswells and Brimmond Hill', 2013 discusses the wider interest and cultural heritage context for the proposals at Newhills and features of note from pre-history and medieval period.

Within the proposed development, the assessment identified 23 known cultural heritage sites, including a late medieval coin hoard find-spot, a prehistoric hut circle, and two extant farmsteads, one abandoned farmstead, the location of a smithy, three cottages/crofts and three wells all of late post-medieval or early modern date. Three category B Listed structures - early modern boundary marker stone, lies just within the proposed development area. Undesignated sites within 100 m of the proposed development include a lodge-house, two cottages, a convalescent home, a stony mound, a well and two areas of rig & furrow cultivation.

A further thirteen cultural heritage sites with statutory or non-statutory designation lie within 1 km of the proposed development. These consist of eight category B Listed Buildings and four category C Listed Buildings. One Scheduled Monument (10446) lies just over 1 km to the north-west of the proposed development - St Mary's Chapel and graveyard at Chapel of Stoneywood.

2.14.2 Medieval Sites (AD 600 – AD 1600)

Although there are no known medieval period structures within the proposed development, a hoard of silver coins (NJ 88 10) dating from the reigns of Elizabeth I and James VI & I were discovered in 1862 'secreted underneath the paving of an old cowhouse' at Bankhead Farm (Evans & Thain 1989). Bankhead Farm is not depicted on Ordnance Survey (OS) First Edition maps at the National Grid Reference location cited by the National Monuments Record for Scotland (NMRS), which differs from that on Aberdeen Council's Sites and Monuments Record (SMR). As the information from the local SMR is generally the more reliable, that NGR was used for the location of the coin hoard. The current whereabouts of the coins is unknown.

Two areas of rig & furrow cultivation (NJ 87130 10141 Gough Burn Corridor and Chapel Belts NJ8714 0982) are outwith the main development footprint. This method of cultivation was used during the Medieval and post-Medieval periods, and it is not therefore possible to ascribe a firm date to these remains. There are no other medieval period remains within the 1km buffer zone to the study area.

One cultural heritage site of medieval date lies to the north west of the Craibstone Campus (NJ 86627 11181). The Scheduled Monument of St Mary's Chapel and graveyard dates from the fourteenth century. The monument comprises the foundations of the building, the remains of a healing well and some gravestones.

2.14.3 Post-medieval and Modern Sites (AD 1600 – 2000)

The overwhelming majority of the cultural heritage sites identified during the assessment relate to the Post-Medieval and Modern periods.

The estate of Crabstoun (Craibstone) is noted on Gordon's early/mid seventeenth century map and on Gordon and Blaeu's 1654 map, where Waltoun (Walton) is also depicted, although neither of these maps actually depicts Eastside of Craibstone farmhouse (NJ 8775 1012). On Roy's 1747-55 map, Crabston (Craibstone) is a large structure set in open grounds within a rectangular, tree-lined estate although, again the farm is not specifically noted. Newhills old parish church (NJ 87172 09470) is named as Kirk of Newhill, and is depicted as a single building within a rectangular enclosure, presumably the graveyard (NJ 87172 09448). This church was built in 1663, and remained the parish church until 1830 (Smith 1791-99, 34). Of the cultural heritage sites investigated for this assessment, Robertson's 1822 map depicts only Craibston; Thomson and Johnson's 1832 map adds no further detail. Gibb's map indicates that the new parish church and manse (NJ 87609 09455 & NJ 87234 09245), as well as Newhills (NJ 87445 09335) are in situ by 1858.

The earliest maps to show the proposed development in any real detail are the first edition OS 25" to the mile map series of 1869. Comparison between these maps and the existing arrangement of fields indicates that the field boundaries have not altered since about the mid-nineteenth century, although some of the smaller fields have been combined to form larger land parcels.

The OS first edition maps note the locations of the category B Listed boundary with the line of the stones marked as 'Boundary of the Freedom of Aberdeen'.

- Kirkhill Farm; boundary marker 40 (NJ 87520 09682)
- Netherhills Farm; boundary marker 41 (NJ 88054 09450)
- Netherhills Farm; boundary marker 42 (NJ 88220 09400)
- Ashtown steading; boundary marker 37 (NJ 86335 10117)
- Ashtown; boundary marker 38 (NJ 86749 09884)
- Ashtown; boundary marker 39 (NJ 86836 09885)
- Kepplehills Road; boundary marker 43 (NJ 88751 09323)
- Bucksburn; boundary marker 44 (NJ 89207 09168)

This boundary represented lands gifted to the people of Aberdeen by Robert the Bruce in recognition that Aberdonians were among the first to support the independence cause. The guide to Aberdeen's March Stones and Freedom Lands notes that the earliest boundary markers were probably natural features such as burns and stones with the addition of small purpose-built cairns, none of which now survive. In the years immediately following 1790 the stones up to number 48 were replaced with the new letter stones, engraved with the letters ABD and the stone number, and the entire series was completed by 1810. The new series was not entirely the same as the older one had been; some stones were omitted whilst a number of new stones were introduced. Over the years the courses of older natural boundaries, such as burns, had been altered, necessitating some changes in the stones' locations (Aberdeen City Council, undated leaflet).

The agricultural nature of the landscape is reflected in the number of farms and crofts within the proposed development area. The farmhouse at Eastside of Craibstone (NJ 8775 1012) comprises a row of three roofed structures with an adjoining structure at the southwest and a separate structure to the north-west, while Woodside of Craibstone (AS 26) comprises a single structure with three out-buildings. Hope Farm (AS 6) is depicted as a fairly substantial farm and steading with six roofed buildings, a pump and what appears to be a large walled garden. The cottage at Clashbogwell (NJ 8774 0991) appears to comprise three roofed structures, a well, and two small enclosures to the west. A second cottage with a croft (AS 11) is also depicted, along with the well that gives Clashbogwell its name. Smithfield/Clashbogwell cottage and croft (NJ 8789 0972) is accessed from the north via an existing track, and the cottage and croft at Marlpool (NJ 8819 0953) are noted, but not named.

Out-with the proposed development, Walton Farm (NJ 87166 11399) is a collection of six buildings arranged in a U-shape with a square area of trees, possibly an orchard, to the south-east of the structures. Strathcona Smithy (AS 24) comprises two rows of three buildings. The east lodge of Craibstone House (AS 12) is named as Gatehouse of Craibstone, and the school on Stoneywood Road (AS 22) lies adjacent to the Great North of Scotland Railway. Chapel Belts (NJ 8714 0982) is noted on the map, but no indication of the rig & furrow is shown. Goughburn Cottage (NJ 8728 1031) is depicted to the north of the proposed development.

The OS second edition map series of 1901 depicts Newhills Convalescent Home (NJ 8745 0975) to the south of Clashbogwell. No other changes were noted.

Later editions of OS maps indicate that Marlpool croft (NJ 8819 0953) and boundary stones 41, 42, 43 and 44 remained in situ in 1938. Of the cultural heritage remains within the proposed development area, only Eastside of Craibstone farm (NJ 8775 1012) and Woodside of Craibstone farm (NJ 8768 1021) remained in situ in 1957, although the 1:25,000 scale of the map may have precluded depiction of the smaller structures.

2.14.4 Assessment, Evaluation and Mitigation

Further specific cultural heritage assessment will be produced for OP21 Rowett South as part of the EIA to support planning and may be required for OP22 Greenferns – to be determined through EIA Screening. Further assessment of OP20 Craibstone North is required. The need for further targeted investigation following the evaluation stage will be discussed with the Lead Curator, Local History and Archaeology at Aberdeen City Council.

2.15 Existing movement network

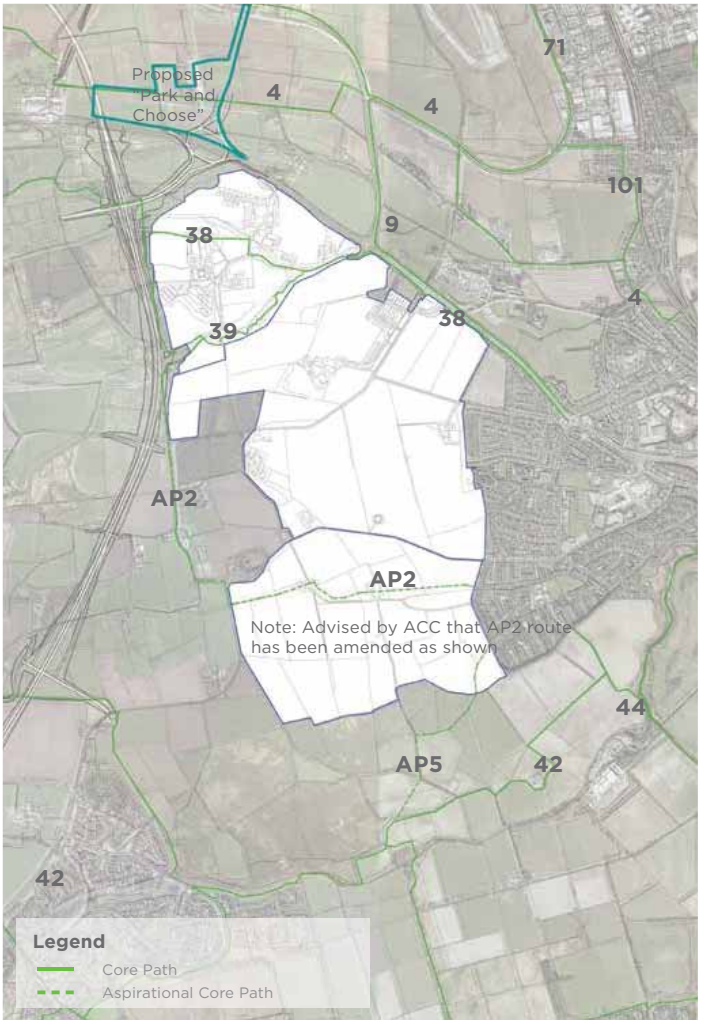


fig. 26: Existing Core Paths and aspirational Core Paths

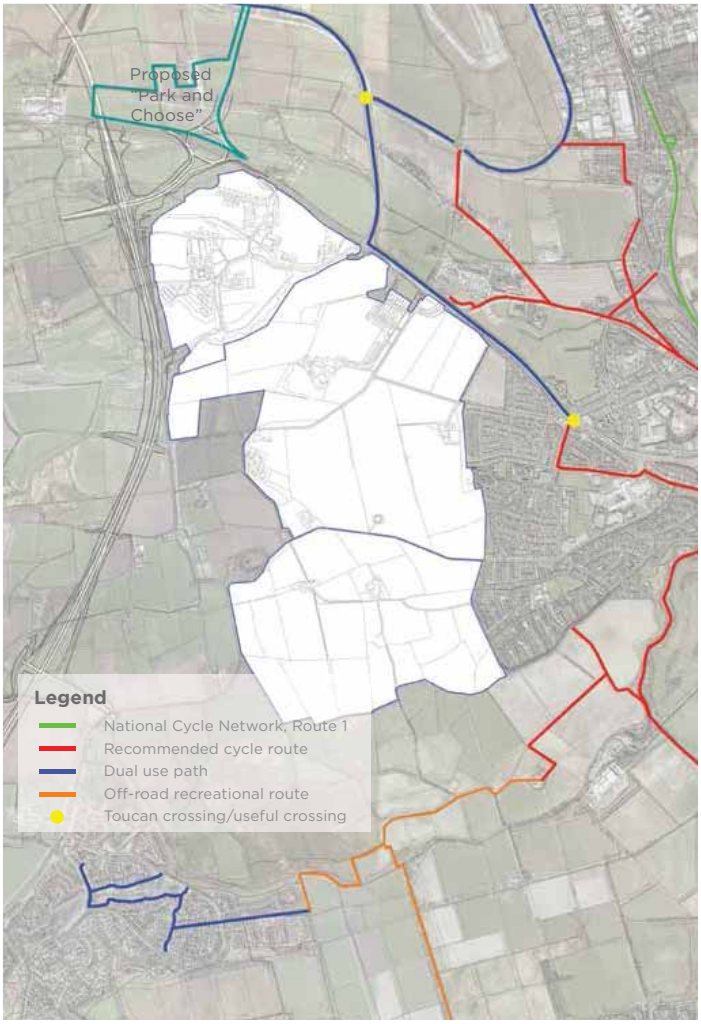


fig. 27: Existing cycle routes

Note: Chapter 5.3 sets out the proposals for connections into existing networks and the provision of new routes within the Development Framework.

2.15.1 Pedestrians

Two Core Paths pass directly through the northern portion of the framework area (38 and 39), whilst there are routes adjacent to the A96(T) along the Rowett South portion. An aspirational Core Path (AP2) is identified along the alignment of Kepplehills Road from the existing edge of the Bucksburn settlement to Newhills Parish Church at which point it follows other routes to ultimately connect with Core Path 39 on the edge of Craibstone. Kepplehills Road has an unlit footway on its northern side which is narrow and of a substandard nature. The existing minor road which runs past Forrit Brae has a narrow and substandard footway on its northern edge between the A96(T) and the junction with Hopetoun Grange Hopetoun Terrace has lit footways along the carriageway. The south side has no footway. A second aspirational Core Path (AP5) is identified passing through the extreme south-east of the area connecting between the local street network at Bucksburn and Core Path 42. The existing urban area which forms the eastern boundary is permeable and allows connections to community, education and local shopping facilities.

The existing minor road which runs past Forrit Brae has a footway on its north edge between the A96(T) and the junction with Hopetoun Grange. Hopetoun Grange has no footway along the extent of road within the framework area. There is planned mitigation for severed or lost Core paths caused by the construction of the AWPR - these are illustrated on the diagram above.

A small range of local shops can be found at Sclattie Park around 0.8 km from the centre of the site. The closest retail is approximately 2km from the site, within the Bucksburn area, which are marginally beyond the recognised maximum attractive walk distance of 1600m and therefore unlikely to attracted a significant number of trips on foot from the area around the site. There are however several amenities located within Bucksburn which could be accessed via the footways including Bucksburn Academy, Newhills Primary School, Bucksburn swimming pool, post office, library, care home.

There are no designated pedestrian crossing facilities within the vicinity of the site however the adjacent roads within Bucksburn are not heavily trafficked and have an advisory speed limit of 20mph.

2.15.2 Cyclists

The closest National Cycle Route is located some distance northeast of the framework area, south of the River Don. There are several "recommended" routes within the Bucksburn area to the east of the site and within the Bucks Burn corridor to the south - these have been identified on the local cycle map and mapped above. The A96 segregated cycle path is on the north side between the junctions at Sclattie Park and Dyce Drive and enables access to the Aberdeen International Airport, Kirkhill and Dyce Industrial Estates is located to the north west of the site. It can be reach via the toucan crossing just west of the Sclattie Park roundabout or by the underpass to the Rowett Institute close to the Forrit Brae junction. Dual-use paths are also available in Kingswells and can be reached from the site via Newhills Avenue and a series of "recommended" and off-road recreational routes.

Several amenities are within 8km cycle distance of the site but specific destinations include:

- Supermarket (2.0km)
- Bucksburn Academy (2.1km)
- Medical Practice (2.4km)
- Newhills Primary School (2.4km)
- Aberdeen International Airport (2.7km)
- Kirkhill Industrial Estate (3.0km)

Whilst the majority of services and facilities within the local area are outwith a reasonable walk distance, there are a wide range within an easy cycle distance. Trips on bike can be accommodated on existing segregated combined pedestrian / cycle paths on the north side of the A96 (for trips to the east) and along the east side of Dyce Drive for those heading to the north. The route to the south of the A96 which is currently pedestrian only is to be upgraded to a combined pedestrian/cycle path.

National Cycle Route (NCN) 1 is located to the east of the site which routes north past Bucksburn on the A947 and east on Mugiemoss Road. This route provides access south to Aberdeen city centre (approximately 9km) via Woodside and Kittybrewster. To the north the route provides access to Dyce and Newmachar. In addition to NCN1 the paths alongside the A96 and Dyce Drive are traffic free and further paths run alongside the A90 to the north of Danestone.

2.15.3 Rail

The nearest station is at Dyce whilst Aberdeen station is approximately 4km by road. There is the potential to develop a train station to the north of the city between the Aberdeen and Dyce stations, however no work has been done as yet to establish or investigate potential sites.

Dyce station is currently unmanned but does offer electronic ticket issuing facilities. Provision for cycle storage is provided at the station with 6 cycle lockers - further cycle parking is due to be installed following the Dyce Station improvements.

Capacity on this route is limited primarily due to the generally single track route between Aberdeen and Inverness. Nevertheless, the station benefits from 23 services per day to and from Aberdeen, and these are summarised in the table below. The station falls outwith the desirable maximum walking distance for commuters although is within an easy cycle distance.

Rail Services	General frequencies	
	Monday – Saturday	Sunday
Aberdeen – Dyce – Inverurie – Insch – Huntly – Keith – Elgin – Forres – Nairn – Inverness	120 mins	5 services a day
Inverurie – Dyce – Aberdeen – Portlethan – Stonehaven – Montrose – Arbroath – Dundee and stations to Edinburgh	6 services a day	No services
Inverurie – Dyce – Aberdeen – Portlethen – Stonehaven – Montrose – Arbroath – Dundee – Perth – Stirling – Glasgow	1 service a day	No service
Summary of services between Aberdeen and Dyce	23 per day between 0652 and 2328	5 services a day

2.15.4 Bus

The principal focus of public transport services in the area is Aberdeen International Airport although several longer distance services also route to the west on the A96. The closest existing bus stops to the site are located approximately 600m away on the A96.

Whilst bus services to the area are provided by a number of operators Stagecoach Bluebird is the principal service provider with First Aberdeen, Kineil Coaches and Bains Coaches providing the remainder of service provision.

First Aberdeen operate the 17 and 17A services which run along Kepplehills Drive, adjacent to the site. First Aberdeen also operate the peak period service 27 from Guild Street, adjacent to Union Square Bus Station and Aberdeen Railway Station, to the Aberdeen International Airport and Kirkhill Industrial Estate. A Network Review implemented in September 2012 maintained services in the peak flow direction at 5 AM to the Aberdeen International Airport, and 4 PM to the City Centre, although some contra-peak flow positioning journeys have been withdrawn. Aberdeenshire Council supported services 747 and 777 provide strategic connections from Peterhead, Ellon and Westhill to Aberdeen International Airport and Kirkhill Industrial Estate at peak periods.

Stagecoach Bluebird also operate services 10, (A,B), X20, 37 (A) and 220 along the A96 beyond the Aberdeen International Airport. These services access a number of destinations, in addition to Aberdeen city centre to the south, including Inverurie (10, 10A, 10B, 37 & 37A) Kemnay (220, X20 & 420), Alford (220, X20) and Inverness (10, 10A, 10B and X10). Service 420 is run by Central Taxis.

A new Park and Choose site is planned to the north of the A96 as part of the AWPR works. It is located within 800m of much of OP20 and is accessible to pedestrians and cyclists via the north-western underpass at Craibstone which leads to Core Path 4. There may be the requirement for further off-site works to connect to it with as direct a route as possible when constructed.

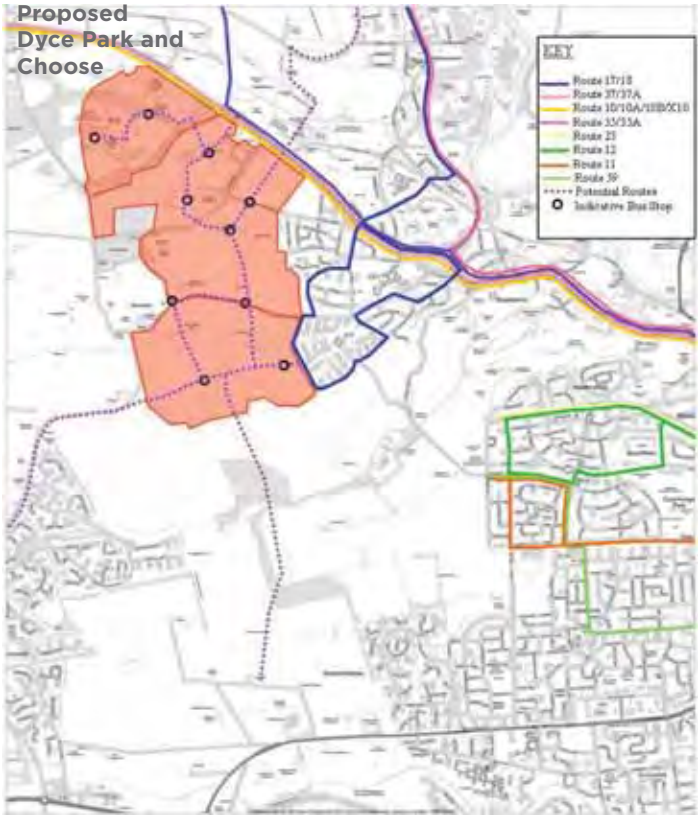


fig. 28: Existing bus routes

Current services serving the development area are summarised in the adjacent table.

Operator	Service	Principle calling points / route	General frequencies				
			Monday - Friday			Saturday	Sunday
			Peak	Off peak	Evening		
Stagecoach Bluebird	10 (A,B)	Aberdeen - Huntly - Elgin - Forres - Inverness	Approx 1 service per hour (each direction)	Approx 1 service per hour (each direction)	Approx 1 service per hour (each direction)	Approx 1 service per hour (each direction)	Approx 1 service per hour (each direction)
First Aberdeen	17, 17A	Faulds Gate - Dyce/ Newhills (Northern Lights) Via Duthie Park City Centre Bucksburn	15 mins	25 mins	25 mins	20 mins	30 mins
Stagecoach Bluebird	X20	Aberdeen – Kemnay – Alford - Strathdon	Approx 1 service per hour (each direction)	2 services (each way)	Approx 1 service every 2 hours (each direction)	Approx 1 service per hour (each direction)	4 services per day (each directions)
First Aberdeen	27	Guild Street – Holburn Junction – Woodhill House West – Bucksburn – Howe Moss Crescent – Aberdeen International Airport	4 services AM towards Site 4 services PM from Site	-	-	-	-
Stagecoach Bluebird	37	Aberdeen – Inverurie	4 services AM towards Site 4 services PM from Site	4 per hour (each way)	Approx 1 service per hour (each direction)	4 per hour (each way)	2 per hour (each way)
Stagecoach Bluebird	220	Aberdeen Union Square – Board Street – Great Northern Road – Bucksburn – Aberdeen Aberdeen International Airport Limited stop service	1 service southbound	-	One service each way	As Monday to Friday	Two services in each direction
Central Taxis	420	Aberdeen - Kenmay	1 service (afternoon peak only)	1 service	1 service	1 service	-
Stagecoach Bluebird	727	Aberdeen Union Square – Broad Street – Great Northern Road – Bucksburn – Aberdeen Aberdeen International Airport – Dyce	20 mins	20 mins	30 mins	30 mins (60 mins 0500-0800)	30 mins (60 mins 0500-0800)
Kineil Coaches	747	Peterhead Interchange – Cruden Bay – Ellon Park & Ride – Newburgh – Belhelvie – Potterton – Dyce Drive – Aberdeen International Airport – Dyce	1 service southbound	120 mins	-	-	-
Bains Coaches	777	Oldmeldrum – Inverurie – Kemnay – Kintore – Blackburn – Westhill – Kingswells (Park & Ride) – Kepplehills – Aberdeen International Airport – Dyce Kirkhill	1 service southbound AM 2 services northbound PM 2 additional AM services from Kingswells to Dyce	-	-	-	-

2.15.5 Local Road network

A96(T)

The A96 is a Trunk Road starting at the Haudagain roundabout and running to the A9 at Raigmore outside Inverness. The road is the principle route for traffic travelling north from Aberdeen City Centre towards Dyce and the Airport. This route provides access to Aberdeen City Centre to the south, and Inverness, to the north.

The A96 links to the A90 to the east. The A90 is a trunk road which routes around central Aberdeen via Anderson Drive and the Parkway, intersecting with key radials at major junctions. These include the Haudagain roundabout junction with the A96 trunk road to the south of the River Don. From here the A90 extends northwards across Persley Bridge to the Parkway and on towards Fraserburgh.

The A96 also links onto the A947 to the east of Newhills, which routes northwards through Dyce.

To the north of the site lies the Dyce Drive / A96 roundabout which provides access to Craibstone, the northern section of the Newhills site. The site within the Craibstone Campus, part of Scotland's Rural College, has its main vehicular access via a driveway with access to the Craibstone roundabout junction on the A96, to the east. To the north west of the site there is a private priority left in left out arrangement with the A96 providing a southern connection to a C-class road heading towards Craibstone Golf Course and Kingswells to the south. There is an underpass to the south of this junction which is currently designated as a private road but which does provide access under the A96 to land to the north, the narrow underpass is approximately 4.5m wide. Further west there is the Marshall Trailers junction, an all movements junction from the A96 providing access to Craibstone and Kingswells. The C89 Kingswells Distributor links the A96 from this junction to Kepplehills Road and Forrit Brae.

To the south-east there is an existing access off the A96 to Forrit Brae. This is an all movement priority junction the A96 central reservation providing an island for traffic heading south along the A96 making the right turn into Forrit Brae. This junction lies approximately 300m east of the A96 / Dyce Drive junction.

Unnamed road/Forrit Brae

The unnamed road which runs from at junction with the A96(T) south-west towards Chapel Belts is commonly referred to as Forrit Brae in reference to the residential street accessed immediately to the north-west from the road. Forrit Brae is a single carriageway road with a sub-standard footway provided on the northern side of the carriageway from the junction with the A96 up to Hopetoun Grange, Hopetoun Grange runs south through Bucksburn and onto the A96. Forrit Brae continues west until it reaches a crossroad priority junction with another unnamed road, which provides access west towards Craibstone Golf Course, south towards Kingswells and north towards Craibstone South. The road is rural in nature providing access to residential properties and is unlit along it full length.

A small access is provided off Forrit Brae to the south of the A96 junction, this provides access to an underpass which links the eastern and western sides of the A96. The underpass is narrow, approximately 4.5 metres wide allowing single vehicle access.

Kepplehills Road

Kepplehills Road runs from Inverurie Road in the east through the site and is a single carriageway for its full length. To the east of Kepplehills Road, within the vicinity of Inverurie Road and the existing settlement, the road is a typical urban distributor road with footways and verges on both sides of the carriageway. This section of Kepplehills Road is used by local bus operators and serves existing residential areas, Newhills School and Bucksburn Community Centre. There is an appropriate level of street lighting provided along this stretch of Kepplehills Road and facilities for pedestrian and cyclist to cross the road at regular intervals and within desire lines to major destinations within the area. The speed limit in this vicinity is 30mph and changes to 40mph to the west approximately 1.5Km from Inverurie Road. At this point the road becomes more rural in nature and there is a sub-standard footway provided on the northern side of the carriageway only between the existing housing and Newhills Church, with no street lighting provided.

C89 Kingswells Distributor Road

The C89 Kingswells Distributor Road runs from Kingswells in the south through to Craibstone in the north. In its southern section the road is single carriageway with large verges on both sides of the carriageway.

The road continues the south through the Kingswells settlement with residential development to the south and east and open agricultural land to the north and west until it reaches the existing roundabout junction with the A944.

The northern section changes in character beyond Webster Park with the road becoming more rural with narrow verges on both sides of the carriageway and no street lighting. The road narrows in places with no verge provided on its northern section before the Kepplehills Road junction.

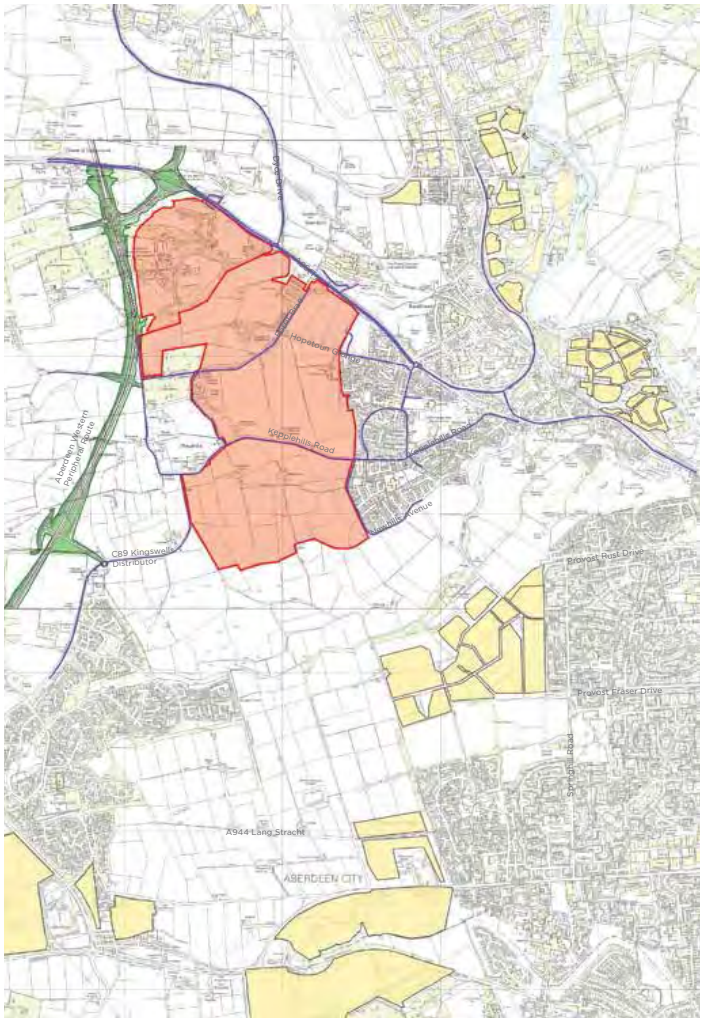


fig. 29: Existing key routes and other framework areas

2.15.6 Strategic Transport Infrastructure

In considering the impact of development on the strategic transport network, applicants shall comply with Local Development Plan Policy I1 – Infrastructure Delivery and Planning Obligations and Policy T2 – Managing the Transport Impact of Development, as well as any other relevant policy/ guidance. In considering the acceptability of proposals, the impact of development on the strategic transport network will need to be assessed. Applicants must demonstrate (e.g. via a Transport Assessment) how they might mitigate any such impact. In appropriate cases, proportionate contributions may be sought to support strategic projects that are related to the developments concerned and that are necessary to make those developments acceptable in planning terms.

A legal challenge was lodged at the Court of Session (Inner House) in August 2015 by the Elsick Development Company Ltd and Goodgrun Ltd, against the adoption by the Strategic Development Planning Authority (SDPA) of Supplementary Guidance entitled "Delivering Identified Projects through a Strategic Transport Fund". The Inner House issued its decision on 29 April 2016 which allowed the appeal. The SDPA has sought leave to appeal that decision from the Supreme Court and, at the time of writing, awaits the outcome of this process. Should the appeal be upheld then the Council retains the right to apply the Strategic Transport Fund policy as per the arrangements set out in the SDPA's Supplementary Guidance.

2.16 Analysis summary

The diagram opposite summarises the key site elements which have been identified through the site analysis process for consideration as the Development Framework progresses. An outline approach is set out below for each feature:

Existing watercourses/drainage channels

There are a number of existing watercourses and drainage channels on the site. These range from the highly characterful wooded corridor along the Gough Burn to functional agricultural drainage ditches within Rowett South and Greenferns Landward. These watercourses are to be retained and buffers applied along their length as per the ACC Supplementary Guidance. Where they take the form of ditches, there is an opportunity to improve the channels and integrate better with adjacent open space.

An existing culvert runs from Kepplehills Road north-east towards the rear of properties on Kepplehills Drive. The potential to daylight this culvert should be explored.

Existing woodland and tree avenues

There are significant areas of woodland and tree avenues within the site. These are to be retained and may be augmented. Tree surveys as part of subsequent PPIP applications will determine the tree condition and advise on appropriate management; there are a number of trees particularly along Hopetoun Grange which may require action due to their age and maturity. The framework should explore where these structural tree avenues can be enhanced and extended in order to protect and preserve the specific character of the site.

Green space network

The ALDP identifies areas of Green Space Network within OP20 and OP21. The Development Framework should consider these areas for various open space functions in the first instance and avoid development blocks and street network where possible.

Existing utilities

An existing trunk water main passes through the site. For the purposes of the Development Framework, this alignment should generally be safeguarded; it may be appropriate to investigate re-alignment at a later date when an assessment can be made as to the cost-benefit of such a move. Distribution water mains also passes through the site - these are more readily re-routed and generally should not constrain development blocks.

Overhead electricity lines pass through OP21. These are to be undergrounded by SSE along the alignment of streets as details firmed up.

Areas excluded from the Development Framework

There are a number of areas within the ALDP Opportunity Site boundaries which are under separate ownership; the Development Framework does not make proposals for these areas and should ensure that existing functions can continue. Appropriate boundary conditions and buffers should be considered in order to mitigate changes in the setting due to the new development.

Buildings with potential for retention

There are a number of buildings which have the potential to be integrated into new development areas. These fall largely within OP20 although there are also properties within OP21 which may function slightly differently as individual masterplans are refined.

Potential connections

There are a number of locations where connections can be made to existing movement networks. These may be simple pedestrian connections to existing footpaths or full vehicular access points which accommodate traffic movements onto the local road network.

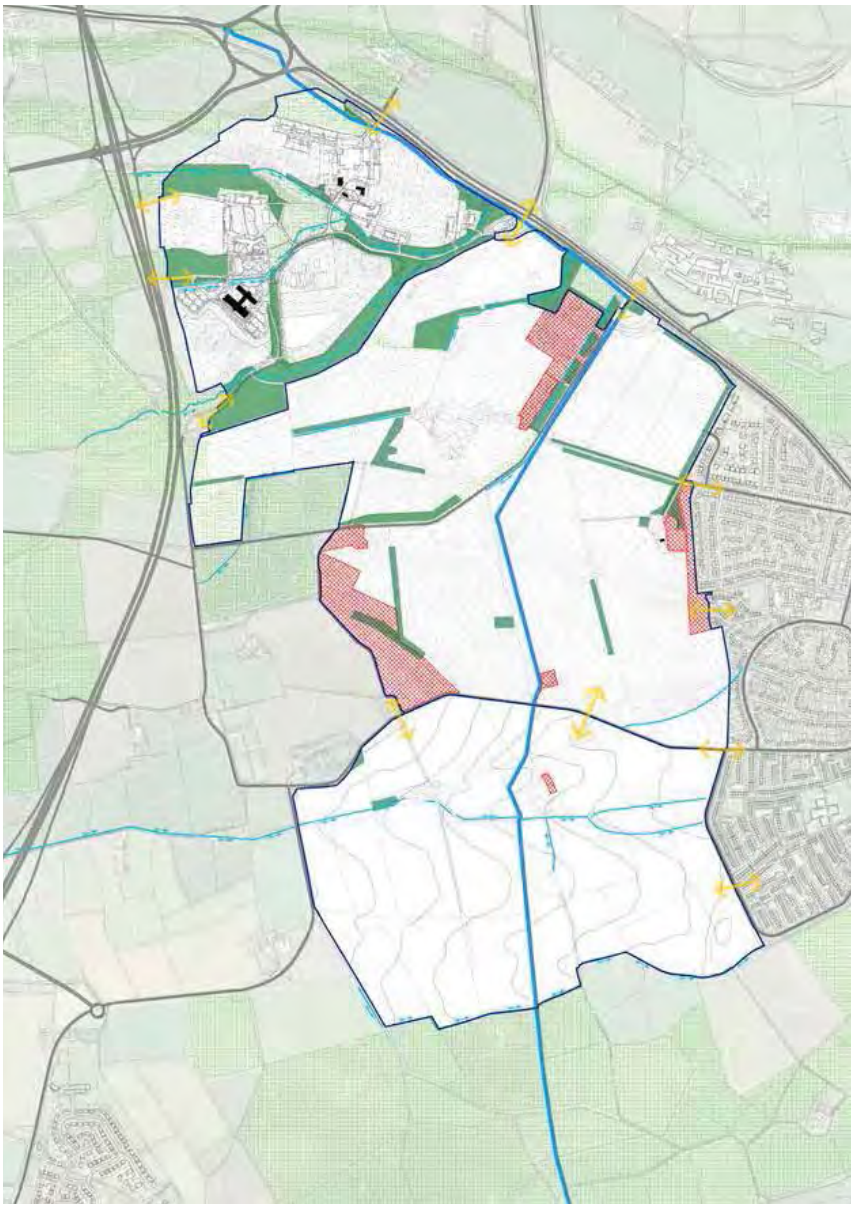


fig. 30: Analysis summary

Legend

- Opportunity Site boundaries
- Existing roads and AWPR
- Existing watercourse/drainage channel
- Water main (trunk) to be safeguarded
- Existing woodland/trees belts
- Green Space Network
- Additional landholdings within Framework area but outwith principle land owners control
- Potential retained buildings
- Potential connections to be considered

3. opportunity and vision

The Newhills Expansion Area will be a distinctive and sustainable new extension to Aberdeen City which offers a choice of neighbourhoods within easy reach of the existing centre and significant employment areas. Designed as a residentially driven urban extension on the edge of the city, it will accommodate a range of housing types and tenures and include supporting uses for use by the new local population. Taking cues from the varying existing qualities of the site will ensure a number of characterful places can grow organically to become viable, sustainable and well-connected communities which are highly attractive.

3.1 The Opportunity & Vision

3.1.1 Highly connected place

Although of a significant scale, the expansion area is carefully tied into the existing city and will in time form the new western edge of the city. The framework is shaped to allow pedestrian and cycle connections to the existing network at numerous locations and proposes a new movement network throughout the site which will ensure movement on foot and by cycle is easy and direct. Existing public transport corridors run on several edges of the site and new routes from these corridors into the site will ensure that a viable and sustainable alternative to the car is available to all residents. The area enjoys proximity to the A96(T) which gives access to the city centre and in the future will allow access to the AWPR which is immediately to the west. On a regional and international scale, the railway station and Aberdeen International Airport at Dyce allow for movement across the country and beyond.

3.1.2 Distinctive neighbourhoods shaped by existing landscape features

The Newhills area benefits from a number of specific and varied landscapes within and adjacent to it, from the mature estate woodland landscape of Craibstone to the highly distinctive landscape of the Burn Brae Moss and the Bucksburn corridor. These existing landscape features have been carefully considered and help to shape both the physical extent of specific neighbourhoods, but also contain and enclose many of these new places, providing a range of residential concepts and allowing residents to immediately feel that they belong to a particular community. The rolling and very particular nature of the existing local valleys and ridges suggest natural "centres-of-gravity" for local supporting uses such as the primary schools or mixed-use areas. Existing mature tree avenues provide strong structuring lines in the landscape from which new open spaces can be aligned to provide an instant setting to development.

3.1.3 Local services to address needs of new residents

Whilst largely residential in nature, the Newhills area will provide for locally assessed needs, in the form of primary education, health, local retail and other small-scale community and commercial uses and a Gypsy / Traveller site. These local services ensure that demand is balanced across the wider area whilst still ensuring a sustainable option is available for everyday requirements.

3.1.4 Adjacent employment and leisure

Balancing the residential uses to the south of the A96(T), an extensive area of employment is planned immediately to the north to augment and extend the successful existing employment uses around the Aberdeen International Airport. The new Aberdeen Exhibition and Conference Centre (AECC) is proposed to be located directly north of the Newhills area and gives significant employment opportunities within walking distance.

3.1.5 Countryside edge

Notwithstanding the benefits of proximity to the city, the Newhills area's position on the western urban edge also allows it to offer the asset of being adjacent to the countryside with outlooks to the Three Hills and Bucksburn corridor and access to their associated open spaces.

3.2 Approach

The design approach to the Framework has been based on a careful understanding and study of the existing site characteristics in order to identify those elements which might best contribute to the new neighbourhoods. Cognisance has also been taken of how the site sits in the context of the urban edge, and how it can organically grow as an urban extension to the city. The key steps are set out below and in the diagrams opposite.

3.2.1 Key site elements and landscape compartments

- Assess landscape compartments and areas which can best accommodate development;
- Identify strategic green spaces including open spaces, quality woodland areas and green corridors; and
- Highlight opportunities to integrate Green Space Network areas into the framework.

3.2.2 Neighbourhoods and centres

- Identify potential local centres and locations for mixed-use areas and education facilities;
- Consider areas of steep slope and other constraints which would be best utilised for green connections; and
- Highlight key connections to link locally between the main green space resources.

3.2.3 Green structure and connections

- Consider the key road network components and how they might be connected to create a strong and permeable network; and
- Structure open spaces along watercourses, Green Space Network areas and according to topography.

3.2.4 Major development blocks

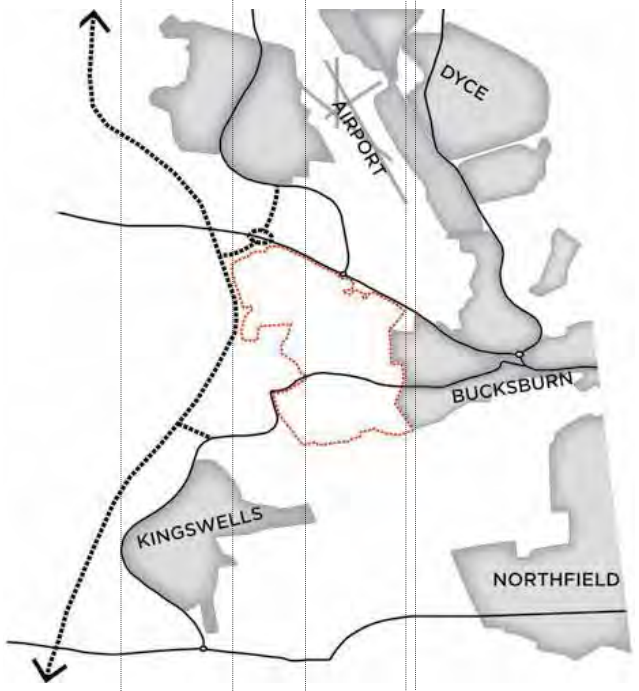
- Test large grain development block sizes and potential for good orientation and aspect; and
- Consider secondary grain street network and appropriate plot depths.

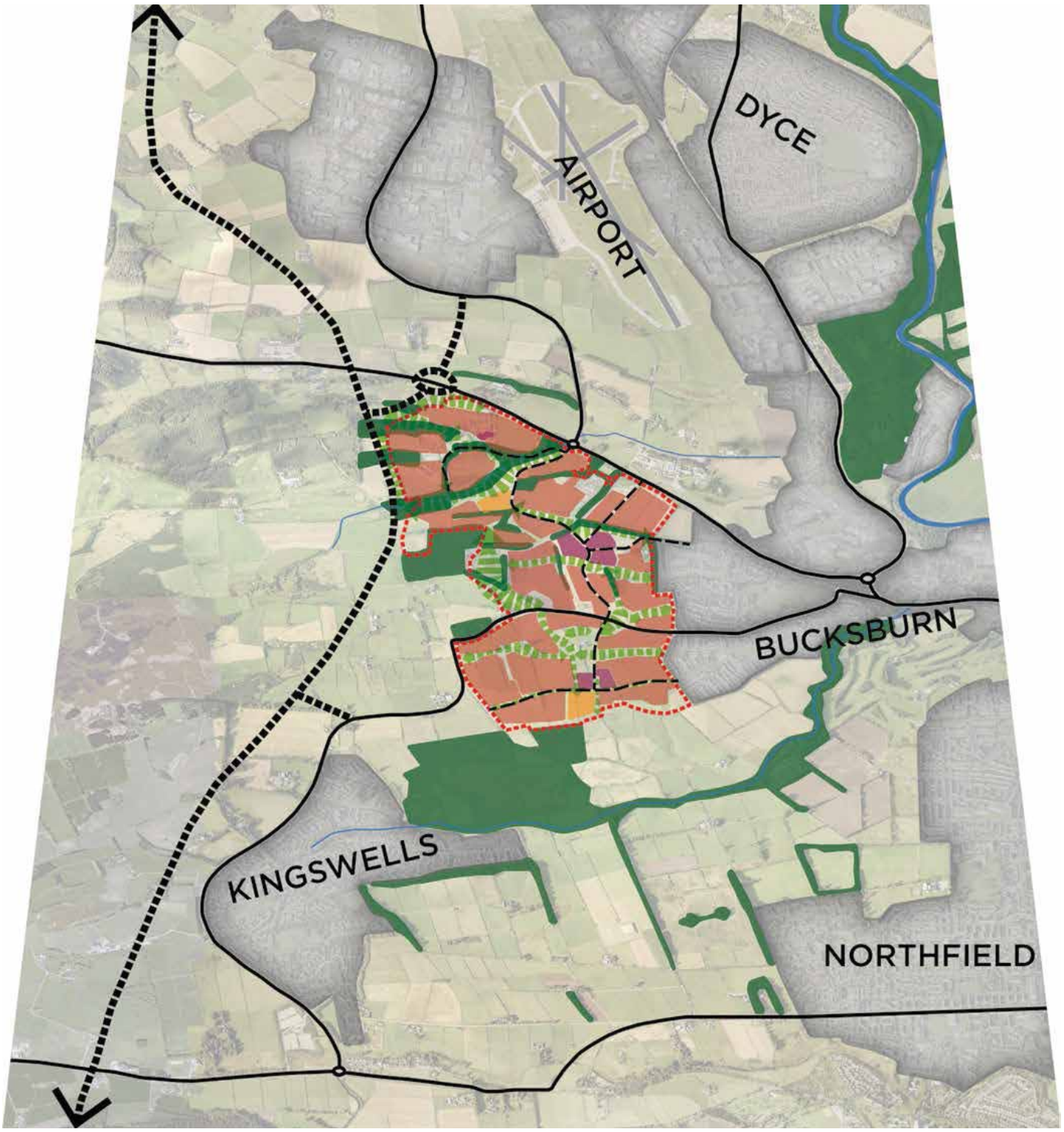
3.2.5 Approach to density

- Residential densities to respond to existing topography and utilise layouts which avoid requirement for significant earth-modelling/platforming; and
- Densities to generally fall across site with higher densities to east and lower densities to west.

3.2.6 Access and Connectivity

- Provide a variety of connections to the existing network wherever reasonable in order to maximise the permeability of the framework boundary; and
- Develop a street hierarchy that allows for strategic North-South and East-West movements whilst providing a permeable block structure for new residents; and
- Allow for public transport routes through the expansion area in order for all residents to be within 400m walking distance of a route.




DYCE
AIRPORT
BUCKSBURN
KINGSWELLS
NORTHFIELD

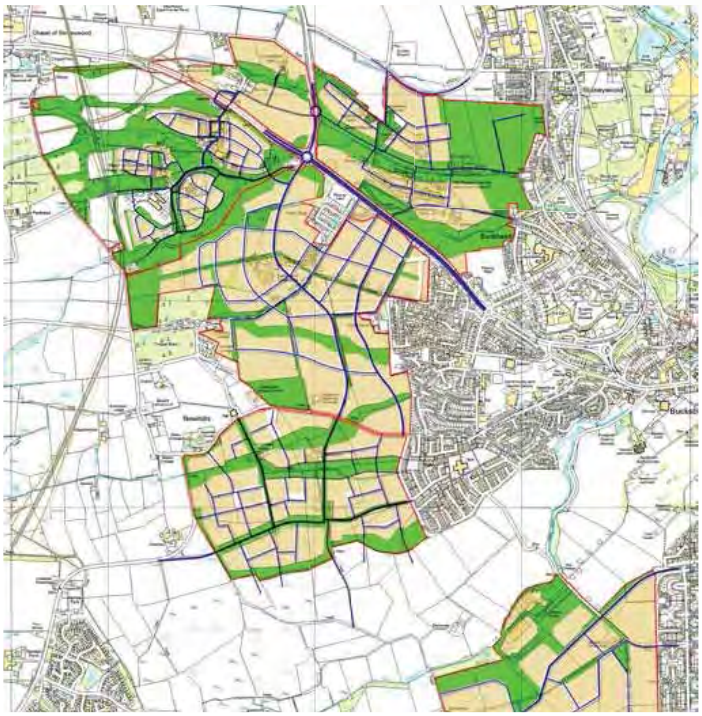
4. design development

4.1 Exploration and testing

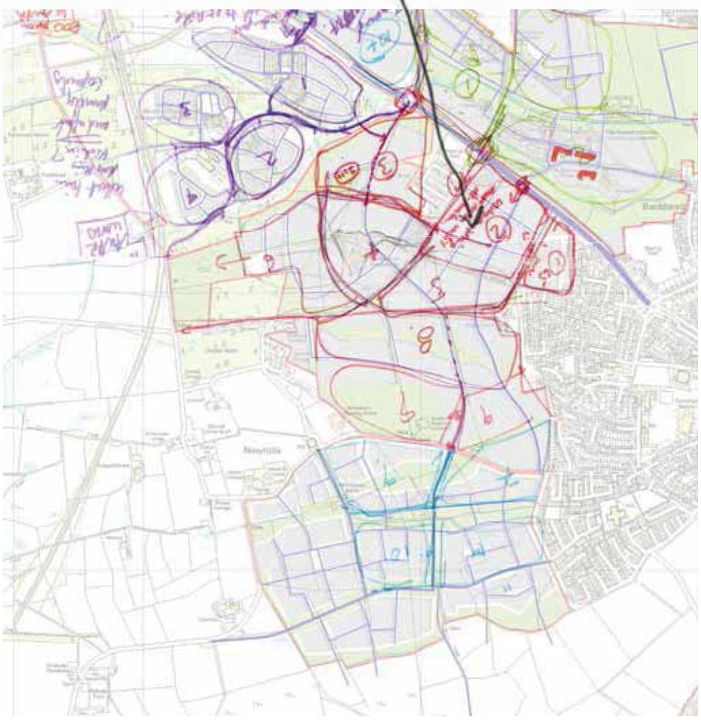
With a site of the scale of the Newhills Expansion Area, testing options and providing alternatives for consultation has been crucial in progressing a Development Framework design which is viable and deliverable. The process is iterative and works across scales continuously to ensure that principles work at a detail level as well as strategically.

Consultation has been carried out using a series of questions and options posed to key stakeholders and the surrounding community. The illustrations on the following pages record some of these questions and the outputs from the process, showing how designs and proposals have progressed and evolved as further site information and technical testing has been integrated.

Drawing together individual site cocepts - sketches from the opportunity sites.



Early plan which collated the various states of frameworks around the Newhills Expansion Area, including Greenferns, Rowett North and Craibstone North.



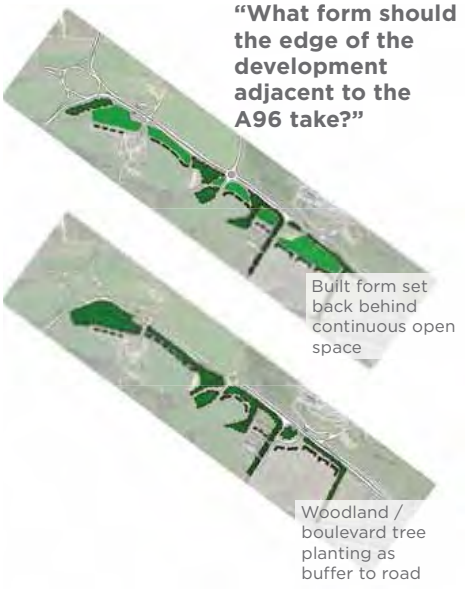
Sketch testing concentric growth from various centres.

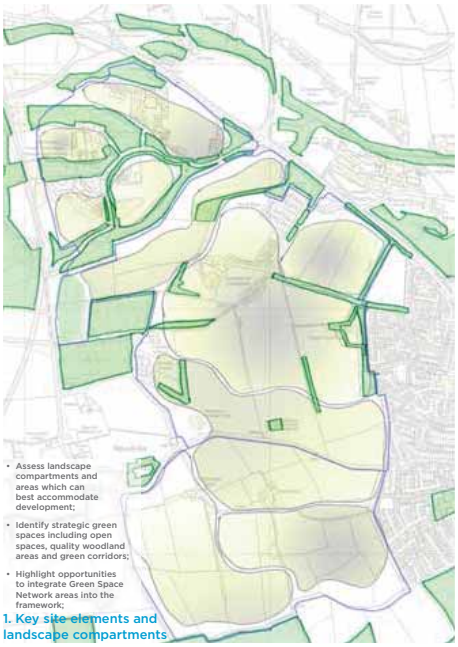
4.2 Public consultation options

At the initial public consultation event, a number of options and questions were posed in order to generate discussion and gather feedback that might not have been possible if a firm set of proposals had been exhibited. Some of these questions and the associated diagrams are set out below in parallel with an outline approach which demonstrated the implications of implementing particular principles. These ranged from the approach to establishing neighbourhoods to the scale and character of development along the A96(T) in the future.

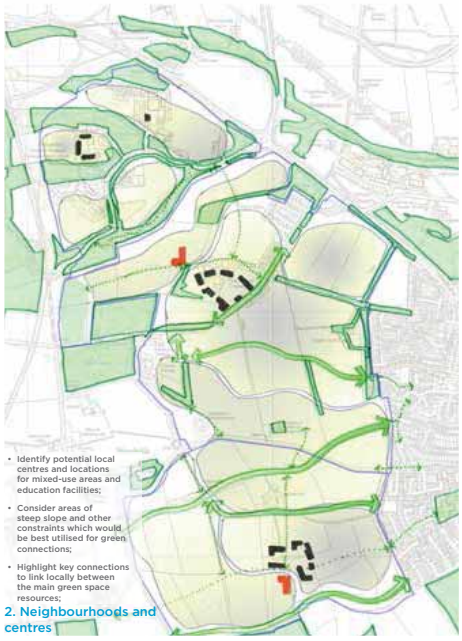
"How many areas should the framework describe within the Newhills expansion area?"

"What form should the edge of the development adjacent to the A96 take?"

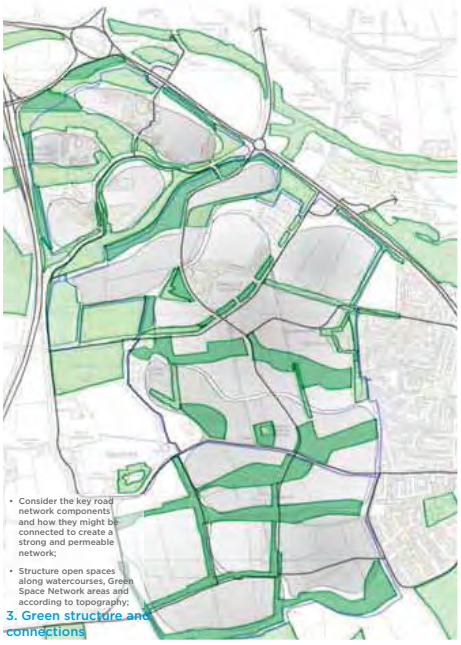




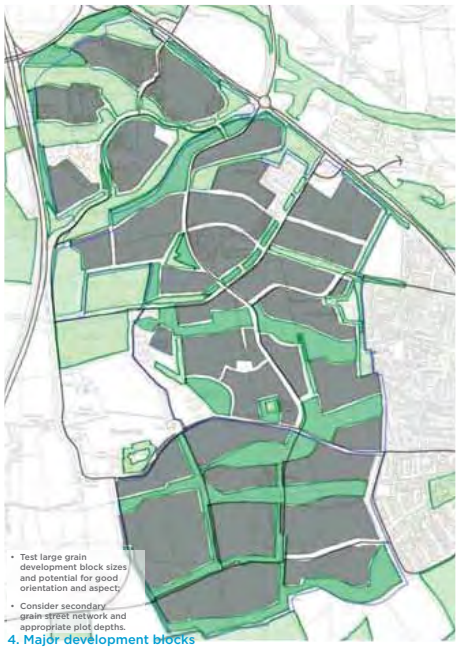
1. Key site elements and landscape compartments



2. Neighbourhoods and centres



3. Green structure and connections



4. Major development blocks

4.3 Residential capacity in OP20

Land at OP20 has been promoted for residential use since around 2006 and a number of representations have been submitted to both Local Plan and Structure Plan processes regarding its overall suitability and potential approach to development. The plans below give an illustration of how the proposals for Craibstone Estate have evolved over the past 8 years and clearly demonstrate a concept for development set within the Estate structure which has remained consistent throughout.

Constraints to development have become more apparent in time as various technical and organisational issues have evolved. These include:

- The design of the AWPR and associated extent of CPO land;
- The extent and distribution of land required to be retained for use by SRUC;
- Confirmation of areas identified as Green Space Network within the ALDP; and
- Topographical survey information which has informed technical design of access and levels within areas identified for development.

Both the "Context for Housing Land Release at Craibstone" representation to the Aberdeen City & Shire Structure Plan Draft in September 2008 and the "Local Development Plan Representation" to the Aberdeen Local Development Plan in December 2010 suggested that "the site is capable of delivering a community of around 900 to 1,000 new homes". This assessment was based on gross development areas which were identified without the benefit of topographical surveys and assumed that retained SRUC uses would be nil or minimal.

Since the formal identification of the site within the ALDP, the net developable area of the Opportunity Site has been identified as a direct result of increased technical understanding of the site (in particular with regard to the Green Space Network areas, topography, the alignment of streets and drainage), design input from the client, SRUC and design team, consultation with Aberdeen City Council, statutory consultees and the community. As the Masterplan process has progressed in parallel with the Development Framework process, it has become apparent that the initial estimate for the full residential capacity cannot be delivered on site without seriously compromising both the character of the site and the ability to accommodate ongoing SRUC uses.

4.3.1 Development constraints

The table below sets out measurements of the various areas and constraints which are relevant to development at OP20.

Identified area/constraint	Area (Ha)
ALDP Opportunity Site **20**	43.15
Land within control of applicant (excludes area of CPO on north boundary)	42.50
Green Space Network (includes 3.31 hectares of watercourses and 12.09 hectares of Ancient Woodland)	20.26
Developable area	21.64

To deliver an allocation of 1000 units at a density of 30 units/hectare would require 33.33 hectares of area to be available without significant development constraints. Accommodating this extent of land within OP20 would necessitate the use of over 11 hectares of land identified as Green Space Network and would inevitably mean the loss of significant areas of Ancient Woodland; furthermore this gross area doesn't account for any retained SRUC uses, infrastructure and roads.

4.3.2 Capacity scenarios

With the realistic developable areas as a fix, the scenarios opposite show the density implications of delivering a certain number of units within defined development blocks. The Development Framework requires to indicate how the overall site might ultimately respond to changing circumstances - the scenarios therefore show options which include and exclude the block identified for the retention of SRUC functions and accept that some development blocks are inherently constrained to low density development (specifically CS:16, CS:20, CS:21 (part), CS:22, CS:23, CS:24 and CS:25).

Scenario 1

- No SRUC retained functions (as per initial Representations), 1000 units provided.

To deliver 1000 units would require all non-constrained development blocks to be around 60 units/hectare (predominantly flats, some terraces), including those parts of the SRUC block which could accommodate high density residential.

Scenario 2

- SRUC retained on block CS:21, 1000 units provided.

To deliver 1000 units would require 85 units/hectare (all flats) to be delivered on all non-constrained development blocks.

Both scenarios demonstrate that achieving the full ALDP allocation would result in very high densities and a very limited mix of housing which is entirely inappropriate to the desired concept for the site.

The following scenarios are based on a context-driven approach which follows a rigorous process of analysis, appraisal, iteration and design, where existing features have been protected and enhanced, local character and topography is reflected in the layout of streets and spaces. They demonstrate that a range of unit numbers is deliverable on the site depending on the retention of SRUC.

Scenario 3

- SRUC retained functions (including up to 100 student accommodation units), 700 units provided

A range of densities and therefore housing types is provided from lower density (detached units within larger gardens in order to accommodate level changes across blocks) through to higher density (all flats).

Scenario 4

- No SRUC retained functions (as per initial Representations), 800 units provided

The platformed portion of the current SRUC site would be utilised for higher density of around 70 units/hectare (all flats). As per Scenario 3, a range of densities is provided across the other blocks.

4.3.3 Development Framework range

This analysis and capacity testing has involved engineers and architects from CALA and indicates that, depending on the ultimate SRUC preference, approximately 700-800 residential units, if developed in a sustainable manner sensitive to the character of the Estate, would be the most appropriate scale of development. This would allow a mix of housing which is deliverable on the basis of current market conditions.

fig. 31: Scenario 1 (1000 units)

- Residential higher density (**c60 units/hectare**)
- Residential lower density (15-20 units/hectare)

fig. 32: Scenario 2 (1000 units)

- Residential higher density (**85 units/hectare**)
- Residential lower density (15-20 units/hectare)

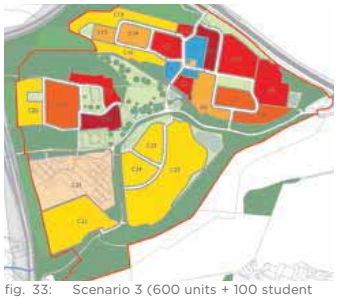


fig. 33: Scenario 3 (600 units + 100 student accommodation units)

- Residential higher density
- Residential high density
- Residential medium density
- Residential low density
- Residential lower density
- Mixed use
- SRUC and student accommodation

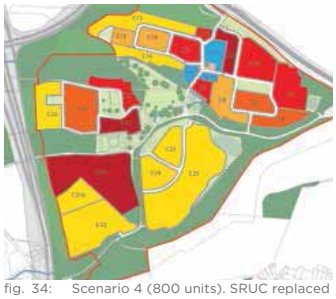


fig. 34: Scenario 4 (800 units). SRUC replaced with residential allocation

- Residential higher density
- Residential high density
- Residential medium density
- Residential low density
- Residential lower density
- Mixed use

4.4 Overall housing allocation

Given there is a shortfall of 200-300 units between the ALDP allocation for OP20 and the actual housing numbers which can be delivered without compromising the Craibstone South site, the potential to accommodate the surplus allocation across OP21 and OP22 has been tested. The diagrams below show the implications in relation to density if all 300 extra units were to be delivered outwith OP20. For testing purposes, densities were generally increased around proposed centres in OP21 and OP22 with an additional high density zone along Kepplehills Road at the edge with the existing Bucksburn area. The overall strategy of density reducing from east to west was retained.

Such increased densities would provide around 300 units across both sites, but would result in significant areas of 'High' (predominantly flats and some terraces) and 'Higher' (all flats) density residential areas which are excessive in terms of the place-making aims of the Framework and contrary to the desire to provide a varied mix of house types and dwellings. The final point is particularly important, as these changes would result in almost two-thirds of the overall units within OP21 and close to half the overall units in OP22 being defined as 'Higher' or 'High' density. This resulting imbalance in terms of apartments and flats provision would give problems in deliverability of the respective sites.

The same exercise to accommodate 200 units across both sites does not result in as significant changes in density and it has been agreed by the respective promoters/land owners that the Development Framework describe a range of unit numbers for OP21 and OP22 which would allow for additional units up to the overall allocation for the Development Framework area. The agreed capacities for each site are therefore:

- OP20: 700-800 units
- OP21: 1940-2040 units
- OP22: 1500-1600 units

The final capacities of the sites will be examined in further detail during the subsequent Masterplan exercises / detailed design exercises.

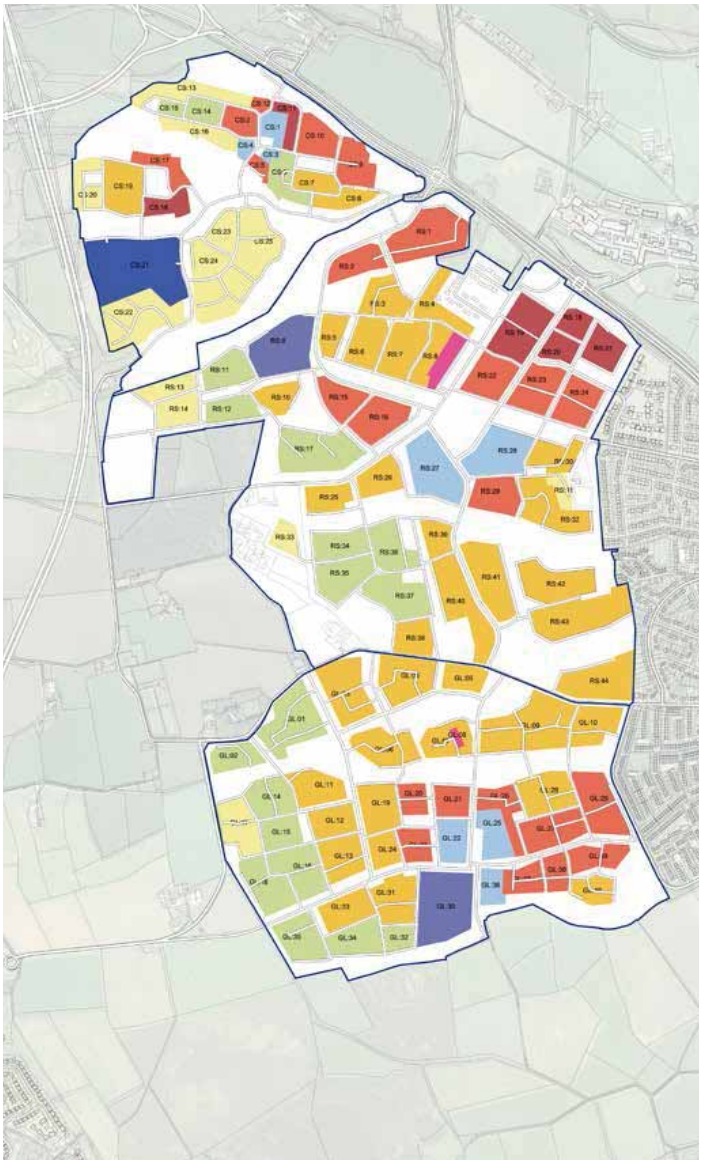


fig. 35: Land use and residential densities to deliver 4140 units in total.

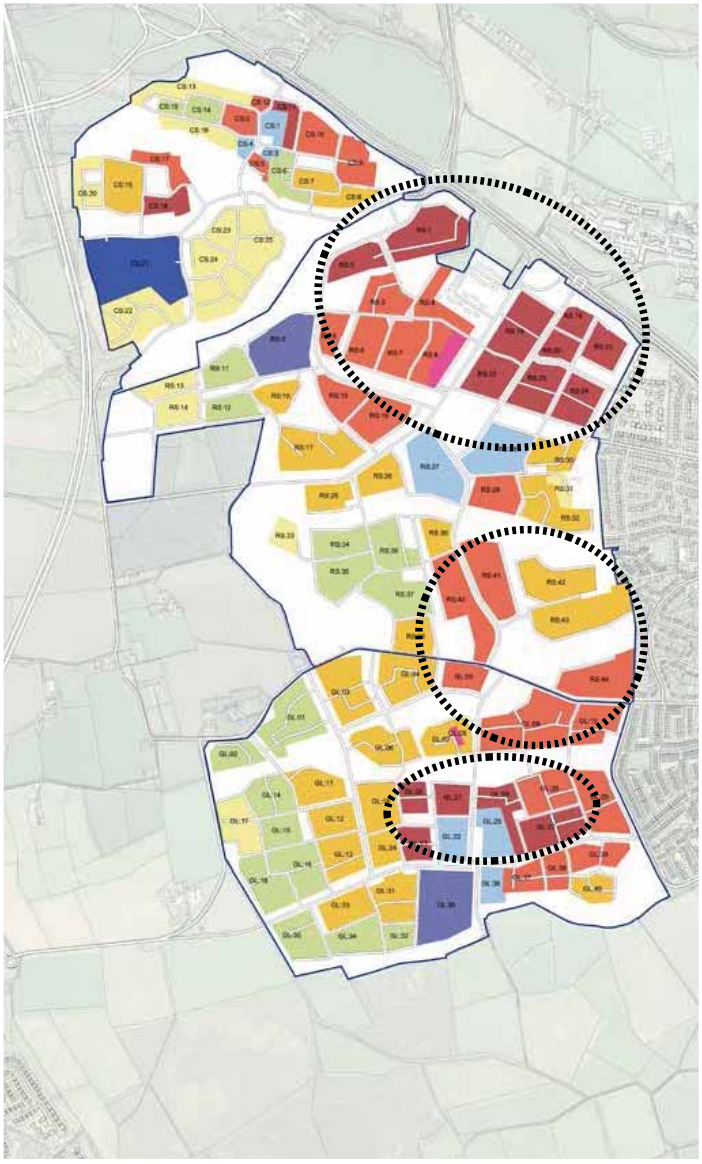
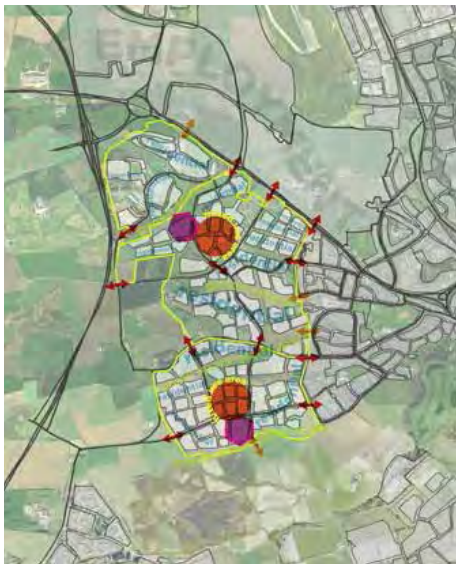


fig. 36: Implications of accommodating 'surplus' 300 units across OP21 and OP22 to deliver 4440 units in total.

4.5 Finalising an approach

The illustrations and exhibition boards on this page show the progression and refinement of an initial outline development framework towards a Draft Framework which was tested at the second public consultation event and formed the basis for a full review by ACC officers. This included testing urban design principles in three-dimensions and evaluating the proposed land uses and densities across the individual sites.



Outline development framework following initial approach

Exhibition boards from second public consultation event.

Testing urban principles (rather than actual building forms) in three dimensions

Exploring potential urban grain across the framework

5. the development framework

5.1 Introduction and purpose

The Newhills Expansion Area Development Framework requires to bring together three different sites in a coherent and integrated way, whilst responding to the specific and differing qualities of the area's landscape and context. When complete, this will be a new edge to the city and as such its important strategic location must be considered and a long term vision for the area created. The Framework has been progressed according to the guidance within Aberdeen City Council's 'Masterplanning Process' document in order to ensure an appropriate process of consultation and feedback has been carried out. Key to the process has been the creation of a clear but flexible spatial Framework based on a vision for the overall development.

Due to the nature of land ownership and the scale of the proposals the detail of the individual developments will inevitably evolve over time, however by establishing a clear structure these changes can be accommodated whilst retaining an overall clarity and coherence to the place. The Framework is based on the allocations within the ALDP and provides the basis for more detailed proposals to come forward at varying speeds.

The Development Framewok:

- Provides an overall vision for the expansion area which takes into account the various landowners and differing approaches;
- Establishes a clear and coherent spatial structure which can accommodate change in the long term as detailed proposals emerge;
- Describes locations and quantum of development in line with the allocations described in the ALDP;
- Sets out strategic transport proposals in terms of access and connectivity;
- Illustrates the general directions and phasing of growth within the expansion area; and
- Describes a strategy for delivering joint Infrastructure requirements and apportioning developer contributions.

fig. 37. Development Framework
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5.2 Development structure

fig. 38: Structuring principles: Landscape features

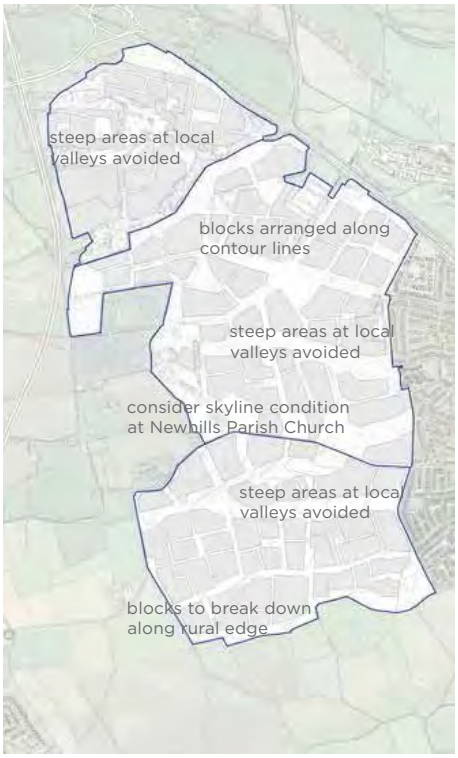


fig. 39: Structuring principles: Landform and orientation

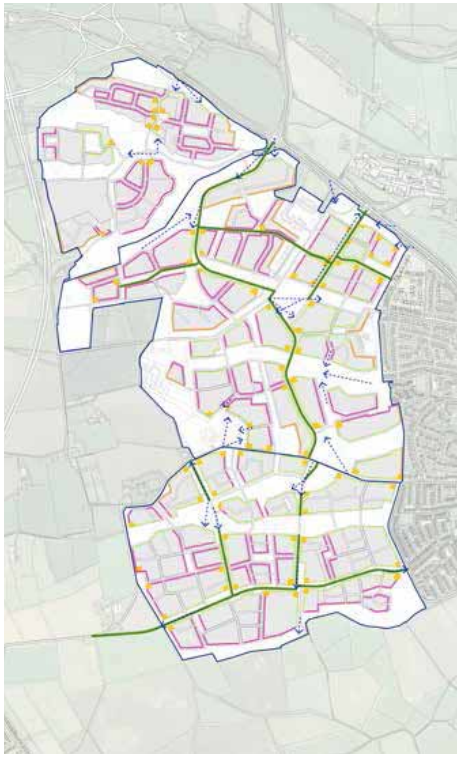


fig. 40: Structuring principles: Spatial experience and containment

Legend

- Primarily Continuous Frontage
- Secondary Frontage
- Rear of Properties to Back Onto Existing Backs / Woodland
- Key Building / Defining Corner / Landmark
- Key Views to be Considered
- Potential for Street Trees to Contribute to Character

5.2.1 Landscape features

A careful analysis of the site has identified those local and specific features which contribute to character, visual containment and landscape interest; these features are to be retained and integrated as detail designs are progressed.

These features include the extensive estate woodland areas at Craibstone; the important structural woodland planting along Forrit Brae; formal tree avenue planting at Hopetoun Grange; the various stream corridors which range from permanent watercourses to seasonal or ephemeral flows; and the rolling character of open fields to the south at Greenferns Landward. Additionally, the adjacent landscape resources of the Three Hills LNCS and Bucks Burn LNCS should be accessible to the new residents at Newhills by providing clear routes from within the site to existing connections on the boundary edge.

5.2.2 Landform and orientation

The area is characterised by a series of local ridges and valleys which function to contain and define specific areas. The character created by topography is modified by existing woodland areas however, so that across the site the extent of views into and out of the site differ.

Very little of the overall expansion area is flat and there are areas of significant slope. The development is structured in response to these areas, avoiding steep areas and protecting local valleys which function for the movement of water and have the potential to be important landscape corridors. Although generally the expansion area slopes from west to east, because of the local corrugations which run in the same direction there are many opportunities for development to be oriented in a southerly aspect in order to maximise passive solar energy gain. There are existing high points to the west which currently feature prominent buildings (such as Newhills Parish Church) and form important skyline ridges. Where there are no existing woodland buffers to protect these lines, adjacent open space is established to help protect the skyline.

5.2.3 Spatial experience and containment

As with other aspects of the Framework, the northern part of the site with its established estate woodland areas has a more internalised and intimate character compared to the more expansive character to the south. The spatial experience along the A96(T) also differs, providing an urban edge (albeit setback using open space and lines of trees) to the east and a woodland buffer edge to the west against the AWPR.

The street network responds both to existing field patterns and structuring landscape lines - these range from more organic street layouts to the north which accommodate level changes and existing woodland areas to rectilinear forms along the A96(T), to distorted grids on either side of Kepplehills Road which respond to local corrugations which still allowing north-south connections. In general, east-west movement is accommodated along the alignment of local ridges and valleys; north-south movement picks up existing tree lines and field boundaries where possible. Spatial experience is also generated by visual connections to existing structures such as Newhills Parish Church and proposed structures such as the primary schools.

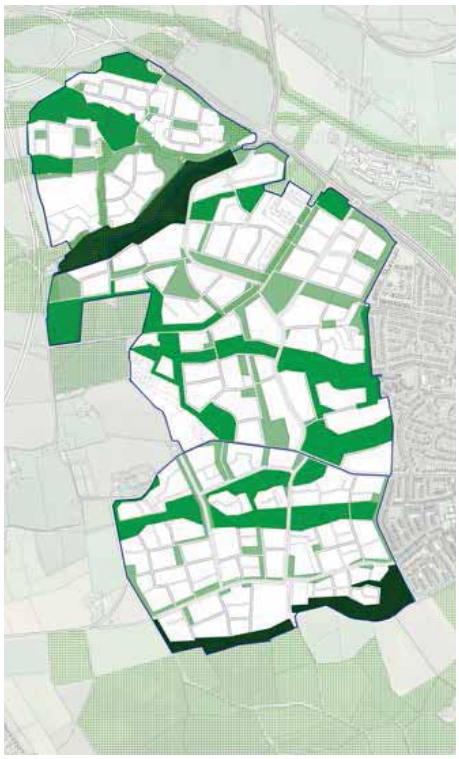


fig. 41: Structuring principles: Open spaces and green corridors

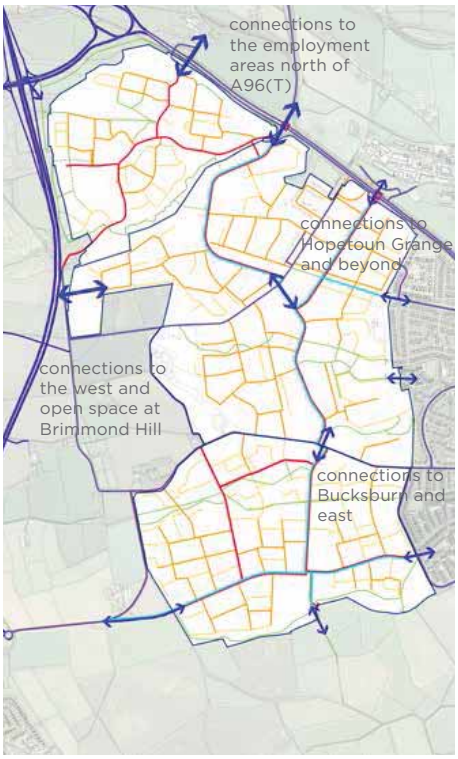


fig. 42: Structuring principles: Connections and integration

Legend

- Major open space
- Neighbourhood open space
- Local open space
- Green Space Network

5.2.4 Open spaces and green corridors

A hierarchy of open space which stretches across site boundaries has been identified which recognises that there should be movement across the individual sites to access particular types of open space rather than a strategy which attempts to provide every scale of space within a particular site boundary. For instance "Major" open space straddle Craibstone South and Rowett South sites whilst "Neighbourhood" spaces run across Greenferns Landward and Rowett South boundaries. Near-continuous green corridors structure the development, providing strategic links along established topographic lines and existing landscape elements to form a matrix of open spaces including woodland blocks.

5.2.5 Connections and integration

Vehicular access arrangements are still to be determined, however it is envisaged that the development will be structured to offer multiple connections of various types, from pedestrian and cycle only, up to significant vehicular access points which give direct access to the Trunk Road. A permeable block structure which can accommodate pedestrian and on-street cycle movement is set out and connections to existing and aspirational Core Paths are made which allow onward connections to strategic cycle routes. It may not always be appropriate for pedestrians and cyclists to share road space with vehicles, therefore it may be necessary to provide off carriageway and segregated infrastructure for pedestrians and cyclists at certain points. The potential for public transport routes through the expansion area will be accommodated through allowances for appropriate corridor dimensions and geometries at a Framework level. All residences will be within 400m of a public transport service in accordance with paragraph 287 of Scottish Planning Policy.

Key connections are being investigated at the A96(T); Hopetoun Grange; Forrit Brae; Kepplehill Road; Kingswells Distributor; and minor roads parallel to the AWPR. .

5.3 Access and connectivity

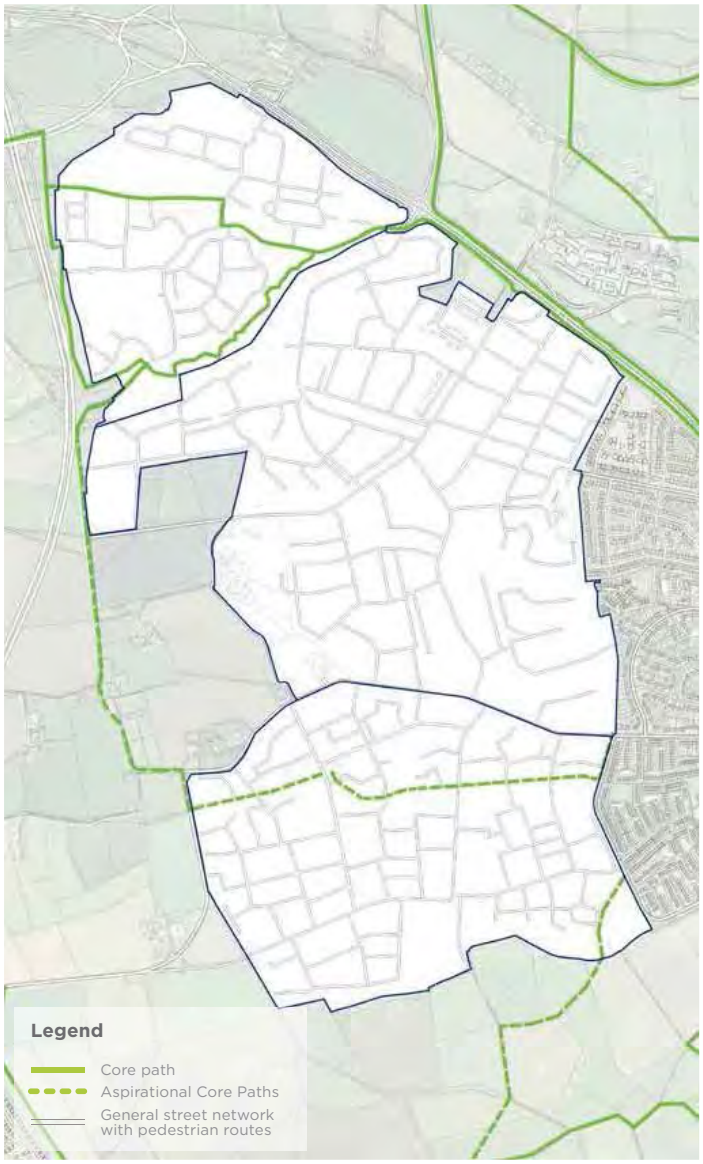


fig. 43: Existing and proposed Core paths

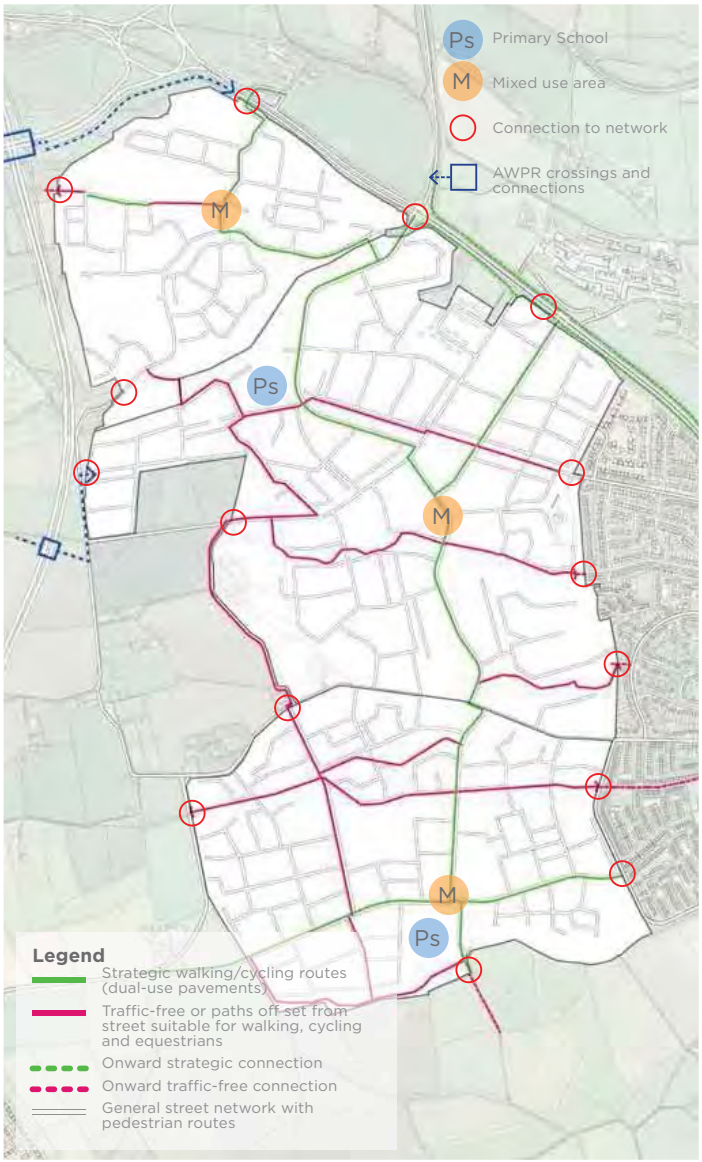


fig. 44: "Strategic" routes

At the core of the access and connectivity strategy is the ability for pedestrians and cyclists to move through Newhills using a permeable network of paths. Newhills will aim to create a place where people can live and work without relying on private transport. A place where people want to be and have everything they need within a walkable neighbourhood. For those things that cannot be provided by the site, the proximity to the wider urban area of Aberdeen will be supported by efficient public transport and cycleways, allowing residents and workers to benefit from the proximity to the City and the surrounding communities at Bucksburn and Kingswells.

'Safe Routes to Schools' will be considered during the detailed design of the school layout. Pedestrian routes and cycle facilities will be promoted through the Safe routes to School initiative. It is likely that the advisory 20mph limit in the vicinity of the current school and the implementation of a "school safety zone" will be supported with appropriate traffic management measures and this will be undertaken as part of the planning application for the school itself.

A full pedestrian matrix of trips and potential cycle journeys will be explored through the detailed design, as TRIP rates and distribution of the residential journeys are determined. The internal hierarchy identifies how these proposed internal trips link with existing external infrastructure and core paths.

5.3.1 Pedestrians

The pedestrian network is designed to actively encourage walking as a viable transport option and also as a recreational pursuit. Pedestrian links will be developed to complement the needs of the new community in terms of connecting key destinations such as schools, local shops, community centres and existing amenities such as Craibstone Golf Club, Brimmond Country Park, Dyce Drive Business Park, Dyce Drive Park and Choose and the Aberdeen International Airport.

The evolving design of the internal layout of the site takes full cognisance of 'Designing Streets', around the premise that "Good street design should derive from an intelligent response to location, rather than the rigid application of standards, regardless of context". In order to achieve this the layout will be 'Distinctive', 'Safe & pleasant', 'Easy to move around', 'Welcoming', 'Adaptable' and 'Resource efficient'.

The focus is on providing an attractive sense of place and a permeable network for access by all road users. Junction arrangements internally are anticipated to be in the form of priority junctions rather than roundabouts, thereby prioritising safe crossing movements for pedestrians. There is a general presumption against crossroads within the site. Detailed junction type and arrangements will be dealt with through the Transport Assessment process.

Safe and attractive environments will be achieved through the maintenance of low vehicle speeds by use of a combination of design measures including width restrictions, reductions in forward visibility, changes in priority, physical features and the use of textured surfaces. Speed limits within residential areas are likely to be restricted to 20mph and promoted using appropriate signage and enforced by design making it physically impossible to exceed this limit.

5.3.2 Core Path and Strategic routes

Figure 43 illustrates the Core path network of existing and proposed routes through and adjacent to the site. This takes into account the ACC Core Paths Plan and subsequent consultation with ACC officers relating to adjustments to alignments to Aspirational Core Paths. In conjuction with a series of Strategic routes and traffic-free routes (illustrated in Figure 44), a permeable and extensive network of routes will be provided linking both existing resources (such as primary and secondary schools, retail areas and community uses) and proposed resources (such as the mixed-use areas, primary schools, GP and dental surgery and sports/ play areas) across the site.

Strategic walking/cycling routes will offer dual-use pavements to ensure direct and convenient links in both an east-west direction and a north-south direction. These have been positioned to align with onward strategic connections such as the dual-use pavement associated with the A96. Additional streets in the development will be identified in the appropriate masterplans which are suitable for combined foot and cycle paths on one side of the carriageway with a footway on the other. Additionally, traffic free routes or paths off set from streets will be provided which are suitable for walking, cycling and equestrians.

At key points where these routes intersect with vehicular routes, safe crossing facilities will be provided.

5.3.3 Cyclists

In line with the national and local policy ethos to promote sustainable methods of travel, the development has been designed around 'Walkable Neighbourhoods' to encourage the opportunities for residents to choose to walk or cycle instead of using private cars for shorter journeys. Specific provision is to be made to accommodate commuting cycle trips. These commuting cycle trips will be identified in detail through the Masterplan process. Strategically access to Kingswells in the south west of the site, and Dyce Drive to the North East are seen as a priority and are highlighted in Figure 44. Specific issues regarding connectivity to employment areas will require further detailed study and consultation particularly in crossing the A96. The detailed study will review existing facilities and look to promote routes which minimise conflict with motor vehicles i.e. investigating the use of the existing underpasses at Forrit Brae and to the north of Craibstone campus. Where possible proposed desire lines for future cycle trips have been identified.

In addition to the internal network, appropriately designed links are to be made to connect with the A96 corridor and National Cycle Network for longer trips. Appropriately designed links are to be made to connect with the A96 corridor. A method to allow cyclists to cross the A96 at the Dyce Drive junction has been considered and will be developed through the existing underpass to the west of the Dyce Drive / A96 junction. The footway to the south side of this junction to the A96/ Sclattie Park/ Bankhead Avenue junction will also be upgraded to a combined foot and cycleway. Cycle connections to the east, south and north are also considered as is the connectivity between Newhills and the Opportunity Sites via the Forrit Brae underpass.

Through public consultation, existing recreational activity will be maintained with access to existing tracks through Forestry Commission land to the north west of the Newhills site and to the west of the proposed AWPR recognised.

National Cycle Network

The National Cycle Network is a series of safe, traffic-free lanes and quiet on-road routes that connect to every major city and passes within a mile of 55 per cent of UK homes. It now stretches 14,000 miles across the length and breadth of the UK.

National Cycle Route (NCN) 1 is located to the east of the site which routes north past Bucksburn on the A947 and east on Mugiemoss Road. This route provides access south to Aberdeen city centre (approximately 9km) via Woodside and Kittybrewster. To the north the route provides access to Dyce and Newmachar. In addition to NCN1 the paths alongside the A96 and Dyce Drive are traffic free and further paths run alongside the A90 to the north of Danestone.

Appropriately designed links are to be made to connect with the A96 corridor. A method to allow cyclists to cross the A96 at the Dyce Drive junction has been considered and will be developed through the existing underpass to the west of the Dyce Drive / A96 junction. Provision will also be made using the underpass at Forrit Brae. The footway to the south side of this junction to the A96/ Sclattie Park/ Bankhead Avenue junction will also be upgraded to a combined foot and cycleway. Cycle connections to the east, south and north are also considered as is the connectivity between Newhills and the Opportunity Sites via the Forrit Brae underpass.

Masterplan(s) for OP20 and OP21 will be required to provide further detail in relation to the delivery, enhancement and phasing of the ped/cycle crossing points over the A96 which take into account the transport modelling exercise outcomes.

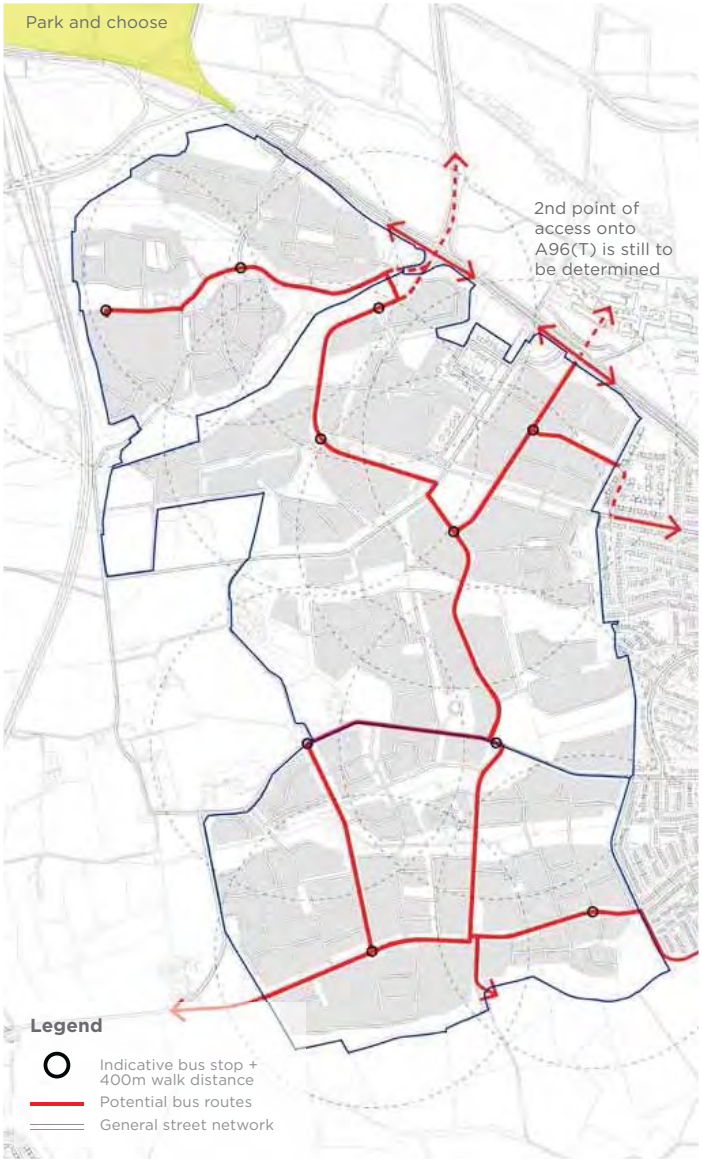


fig. 45: Potential public transport routes and bus stops

5.3.4 Active travel

The practice of active travel emphasises walking and cycling in place of vehicular movement and offers benefits in terms of better health, increased fitness and reduced Carbon emissions. The opportunities for active travel have been specifically considered when planning the pedestrian and cycle routes within the Development Framework. These routes have been located where connections are possible into wider networks of desirable routes, such as the dual-use paths along Dyce Drive and Core Path 38 along the A96(T). Figure 27 earlier in the Development Framework document highlights those wider networks surrounding the Newhills Development Framework area; both the strategic and traffic-free routes have been planned to allow for connections into these networks, allowing vehicular car journeys to be more easily replaced by more active forms of travel. This approach also ensures that cycle and pedestrian provision is not only focused on leisure trails but ensures effective links to everyday destinations through an integrated network.

5.3.5 Equestrian routes

Horse riders also require better access to the countryside and the provision of facilities which can be shared by all users may appear an efficient use of limited resources. Each user group has different demands in terms of path and route characteristics and careful design is necessary to ensure that different user groups can share the same route safely, comfortably and legally.

Different recreational users have different requirements for path characteristics. It is therefore necessary to have a good idea of potential levels and types of use in order to effectively plan paths. Path use can be gauged by considering the local population catchment, potential numbers of visitors and by contacting local groups including representatives of the British Horse Society (BHS) and local riding schools. As shared use paths are expensive, forecasts of user numbers

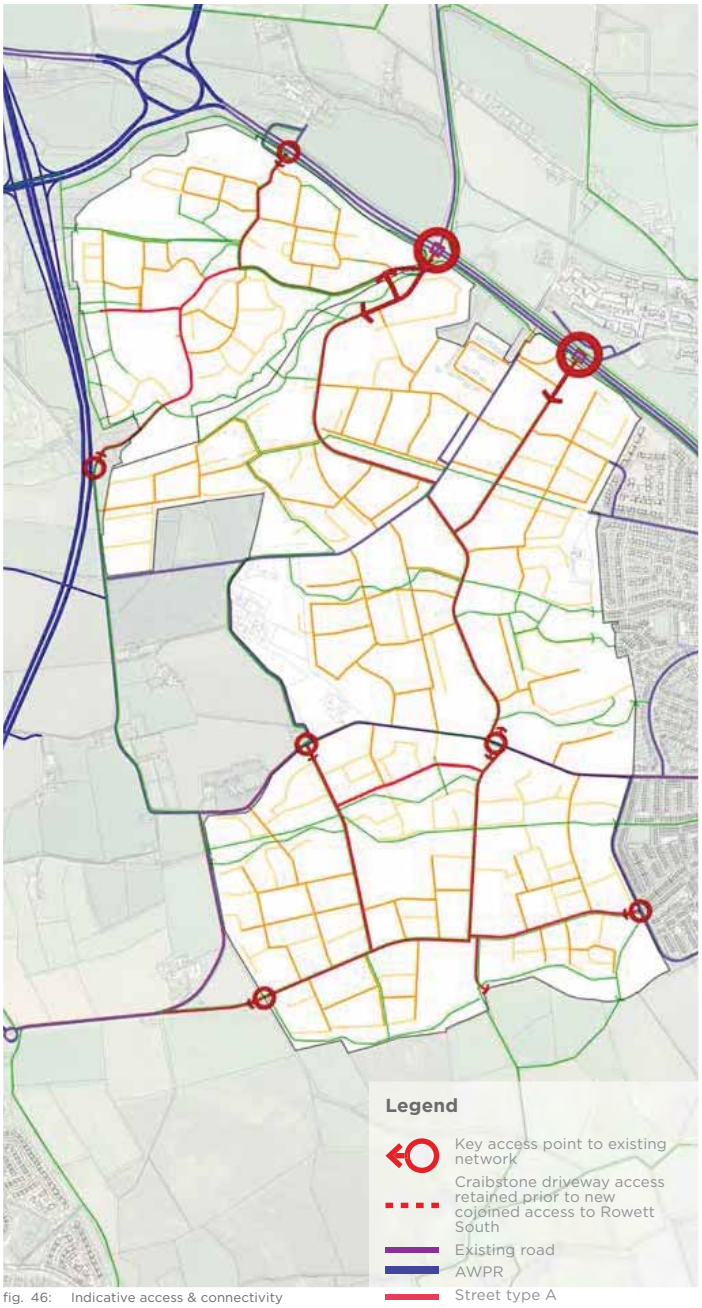


fig. 46: Indicative access & connectivity

may be needed early in the planning process to justify the proposed expenditure. User requirements also vary according to user experience, skills, commitment to the pursuit, etc. Shared use paths have mostly been designed for general, fairly easy-going walking, often including wheelchairs and prams, recreational cycling at speeds of up to 8-10mph, and horses for walking or trotting. The minimum and/or preferred requirements of equestrian user groups differ to those for cyclists and pedestrians. Some are complementary, some would require extra expense to accommodate and some are in conflict.

5.3.6 Public transport

Chapter 2 identifies the existing public transport provision in the vicinity of the site. Initial discussions with public transport operators has led to the adjacent plan being produced which identifies proposed extensions to existing facilities and potential new routes. At this stage in the process, no firm proposals can be determined but the feedback from First Bus and Stagecoach suggests support to the above proposals. It is important to the viability of these proposals that the site is permeable to public transport and that routes and services exist that run from residential to employment areas and not just into Aberdeen City Centre. The stakeholder event provided feedback from various existing residents in the area that new services which look to link Newhills, Kingswells and Bucksburn to employment areas in Dyce and Westhill would be greatly appreciated. The proposals presented at this stage attempt to address these issues and provide services which could potentially link these areas. The use of two junctions to access the A96 is deemed to be important in supporting public transport provision.

The potential for existing bus service extensions and new bus routes has been discussed in principle with the operators. Figure 45 indicates potential bus routes through the site which will provide appropriate coverage to the proposed development and also link existing settlements and existing/proposed employment destinations. Public transport services will be delivered to within 400m walk distance of every house. The provision of a potential link south east through the Greenferns Landward site is to be provided for future consideration by ACC to connect the Newhills site with existing services at Bucksburn.

The respective developers for the sites will pursue the delivery of public transport provision; further detail will be provided in the relevant masterplans.

Car club

Car clubs such as Co-wheels or similar will be considered as part of the masterplan(s) for each site.

5.3.7 Access strategy

Prior to 2018, and any of the listed major highway improvements, development at Craibstone and Rowett South can commence utilising existing access. This will be via the Dyce Drive / A96(T) roundabout for Craibstone and via the existing Forrit Brae access for Rowett South. Other access points at Hopetoun Grange and Kepplehills Road also allow development to commence at Rowett South and Greenferns Landward. Access to the A96 from the site is still to be determined with strategic modelling assessing the impact of these proposals on the local and strategic network.

5.3.8 Street structure and hierarchy

The access and connectivity plan (Figure 52) indicatively illustrates a clear structure of streets which have been designed in response to the existing site conditions and to ensure appropriate connections are forged with the existing network. A hierarchy of scaled streets has been defined, which have different parameters and deal with various pedestrian, cyclist, equestrian and vehicle parameters. In generally decreasing volume of vehicular traffic these are described as:

- Street type A: Key routes making significant connections to the local road network. Accommodates public transport uses and supports mixed use activities;
- Street type B: Streets which create connecting loops and grids across the site to allow access to development blocks; and
- Street type C: Streets, shared surfaces and lanes which run within or on the edge of development blocks to provide low traffic volume access.

Additionally the estate driveway within OP20 should be retained on the existing alignment to provide the principal access to the site. The driveway should be designed as a carriageway with verge and path to one side. The exact width of the carriageway to be determined by swept path analysis (bus vehicle) to ensure the route is suitable for bus access. The route will need to be lit. The alignment of the path parallel to the street can vary to allow trees to be retained.

These clearly defined street types combine to provide a good legibility to the development and are a critical part of creating an identity and sense of place. An additional layer of circulation and movement is provided by vehicle-free pedestrian and cycle routes as previously described. The specific design parameters and character of each street will be informed by the respective TAs which will be prepared in support of the individual PPIP applications.

5.4 Transport modelling

A traffic modelling exercise is currently being undertaken to identify the impact of all the developments in the A96 corridor to the north west of the City. The modelling will inform a strategy which will determine the form, timing, funding, delivery mechanism and the phasing of the necessary improvements to the A96 corridor. The detailed Masterplan(s) will determine design, mitigation and final layout of the Rowett South and Craibstone South sites adjacent to the A96 once the junction strategy and necessary improvements have been determined for the corridor.

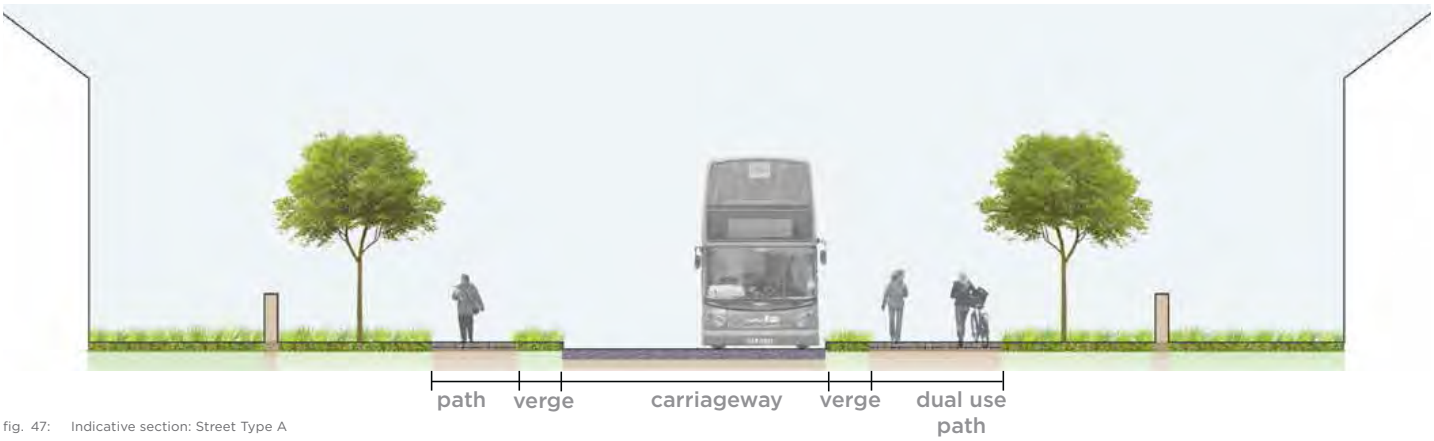


fig. 47: Indicative section: Street Type A

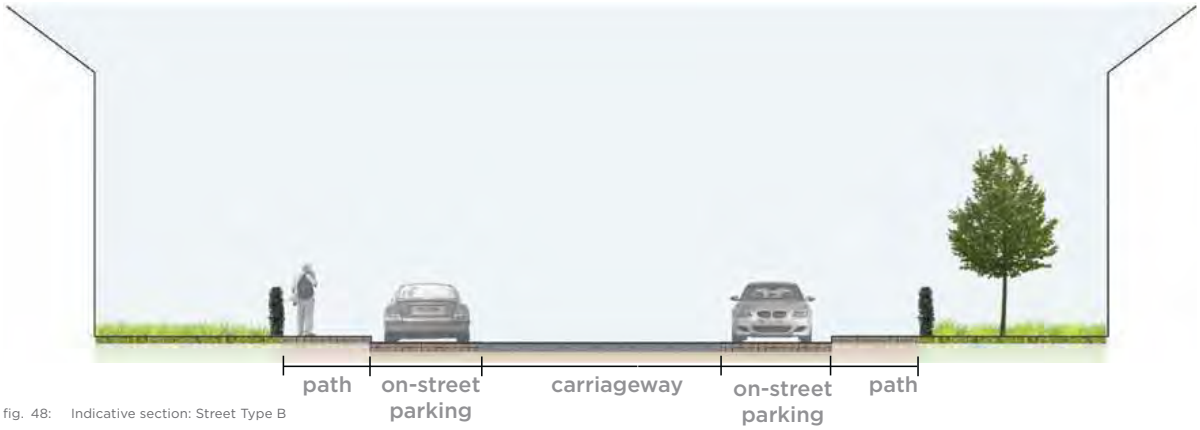


fig. 48: Indicative section: Street Type B

fig. 49: Indicative section: Street Type C. Typical minor street with on-street parking

fig. 50: Indicative section: Street Type C. Lane or access road.

fig. 51: Indicative section: Street Type C. Shared surface.

fig. 52: Indicative section: Street Type A. Estate driveway.

5.5 Landscape Framework

The landscape framework for Newhills establishes an open space provision which is appropriate to the place, well-considered and equitable in its distribution and efficiently managed.

The Dyce/Bucksburn/Danestone area currently has a little over 6% open space according to the ACC Open Space Audit; the open areas identified within the Framework can therefore contribute and increase this provision, providing particular types and sizes of open space which have been identified as lacking in the wider area. Taking into account other findings of the Audit, many of the proposed open spaces take the form of natural green space or green corridors, rather than amenity space in order to address concerns over maintenance costs and inflexible uses. Further detail on the open spaces and landscape treatments will be provided within the relevant masterplan(s).

5.5.1 ACC Guidance documents

The following documents have been referenced to determine the type, quantity and quality of open space and their particular functions:

- ACC's Open Space Supplementary Guidance;
- ACC Open Space Audit; and
- ACC GIS Green Space Network.

The Open Space Audit has found that Bucksburn and Danestone fall out with the recommended catchment of neighbourhood parks and the area lacks areas of natural/semi-natural greenspace. The landscape framework identifies areas of open space to be retained across the site which are capable of becoming high quality resources for new residents and which are well-distributed across the area. Additionally, the identification of both the Gough Burn corridor and the area adjacent to the Burnbrae Moss as major open spaces helps to address a lack of significantly scaled open space within 1500m of Bucksburn

5.5.2 Green Space Network

The Development Framework proposals for open space play an important role in maintaining and creating connections between different habitats on the site and avoiding fragmentation. The existing character of those areas which are wildlife corridors for important species or have been solely declared as a Green Space Network due to their habitat quality must be carefully considered in subsequent masterplans in order to not compromise those areas. This will ensure that the movement of species such as bats and red squirrel across the site is maintained and promoted. Recreational use within the existing GSN areas will be restricted to current path networks which largely follow existing alignments and therefore will not compromise the network.

The Framework extends and connects existing areas of Green Space Network which fall predominantly within OP20, with some areas within OP21. New extensions and connections are achieved by identifying and expanding the area around existing landscape features such as field boundary tree planting, watercourses, drainage ditches and areas of low-lying land which naturally gather water. These areas are linked through further open space provision and SUDS features. Where appropriate, additional tree planting will be considered within the subsequent masterplans to provide connectivity between existing woodland blocks. The result is a true green matrix which reaches from east to west and north to south across all three opportunity sites. Limited low density development blocks within OP21 are located within a GSN area to the west; this area has been assessed as having low ecological value and mitigation will be implemented in the form of landscape improvements to provide wildlife corridors on either side of these blocks through new woodland planting and open space designed as biodiverse green corridors.

5.5.3 Local Biodiversity Plan

The NESLBAP sits under the UK and Scottish Biodiversity Action Plans which contain a broader list of species and habitats which have been reviewed as part of the Development Framework. Ecological surveys have been undertaken in relation to OP20, 30 and 31 (see section 2.13.3) to identify the range of species and habitats.

Development Framework Priority Species	Protected Species: • Otter (adjacent survey on Gough Burn currently being undertaken) • Bats (some bat activity in Craibstone South – further surveys being undertaken currently on Craibstone South and Rowett South) • Badger (badger activity identified on Craibstone South and Rowett South – further surveys to be undertaken on the latter in February/March 2014, no activity identified on Greenferns Landward)
	• Red Squirrel (no sightings with Greenferns Landward, evidence of red squirrel on Craibstone South, limited potential on Rowett South, however surveys are currently being updated. Red List Bird Species: - sky lark, song thrush, starling, tree sparrow, yellowhammer; Biodiversity priority species - wych elm Local List Bird Species - buzzard, kestrel, oystercatcher
Development Framework Priority Habitats	Arable field margins; hedgerows; lowland mixed deciduous woodland

There is a committment across the site for the improvement of biodiversity; further detail on biodiversity will be provided as part of the detailed masterplans. Survey findings have informed the Development Framework and will continue to inform detailed Masterplan layouts:

- Retention of high quality trees as per the recommendations of tree surveys and Tree Protection Orders (see section 2.10.3 Existing Woodland) – protects and enhances wildlife corridors and landscape and visual quality / amenity;
- Integration of greenspace / openspace with existing green links through the site to maximise benefits in relation to amenity and biodiversity;
- Protection and enhancement of burn corridors as green links through the site and to maintain ecological status of watercourses (see section 2.8.2 River Basin Management Plan and 2.8.3 Buffer Strips);
- Identify any protected species obligations through appropriate surveys (see section 2.13.3 Ecology) and incorporate mitigation where required as part of the Development Framework and later Masterplan layouts;
- Identify wetlands within respective sites and provide additional information on wetland enhancement and improvement; and
- Site specific, plan-based Construction and Environmental Management Plans will be required for any subsequent planning application(s);

5.5.4 Open Space Hierarchy

Within the Newhills Framework, over 80 hectares of open space has been identified in total across the overall site areas of 219 hectares. These spaces have been identified as of Local, Neighbourhood or Major scale according to their size, function and quality standards. This section sets out high level strategic aims in the first instance for key spaces which will be subject to further detail at subsequent masterplan phases.

5.5.5 Major open space

Two areas totalling around 13 hectares are identified within the site which can fulfil the requirements for Major open spaces. All residents within the Framework are within 1500m of one or both of these spaces and they also fill a gap in the current provision within the wider Dyce/Bucksburn/Danestone area as identified by the Open Space Audit.

M1. Gough Burn Park (c7.1 hectares)

The woodland stream corridor is already well used for walking and has a Core Path running adjacent to the existing watercourse. The Framework identifies an associated corridor of open space to the south which is proposed to accommodate allotments, a large-scale equipped play zone and part of the playing fields associated with the adjacent primary school. Woodland and open space combine to form a significant natural corridor which allows for various recreational functions whilst also providing connections to the west to the Three Hills LNCS. The area

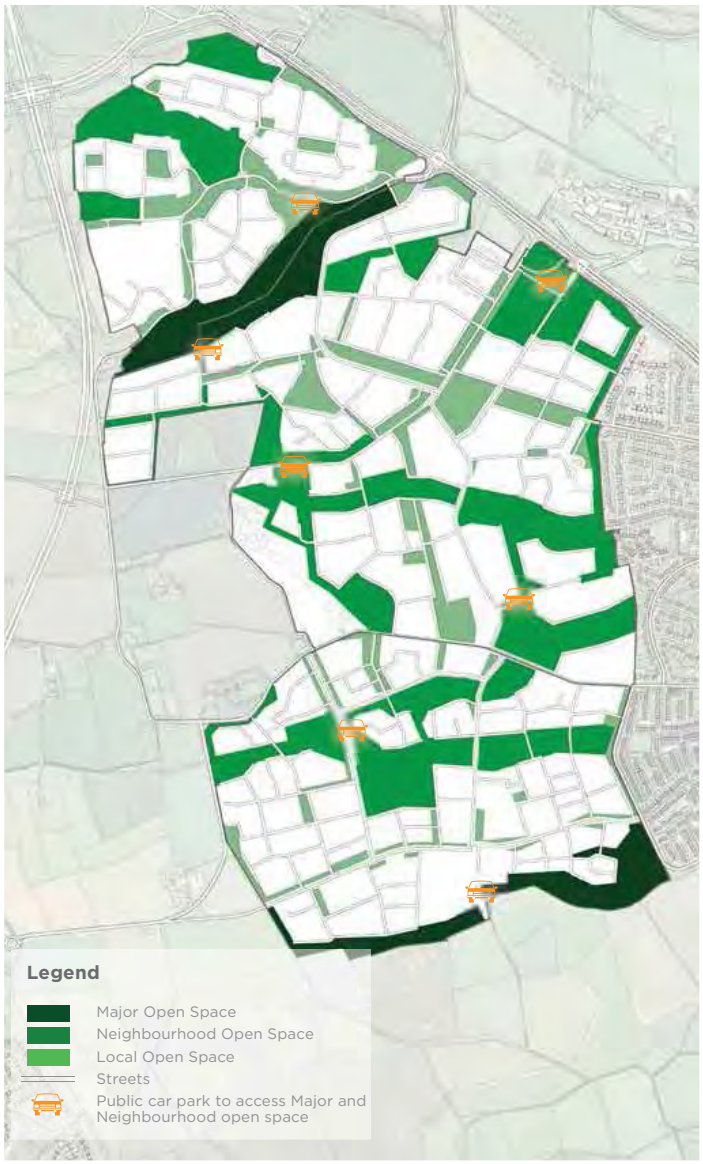


fig. 54: Open space hierarchy

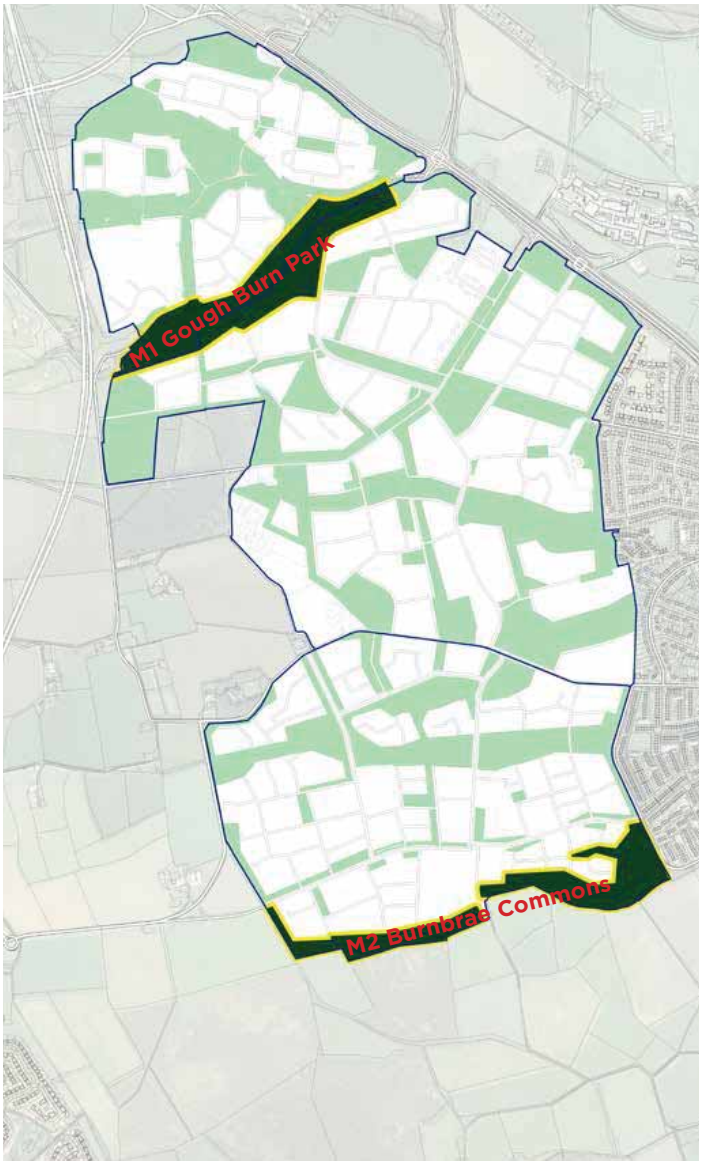


fig. 53: Identified major open spaces

has a variety of habitat types, from mature woodland to riparian margins and SUDS basins.

The following principles and functions should be considered:

- Associate primary school with park and allow safe and direct linkages between the two functions;
- Integrate primary school playing fields into park and allow for public access;
- Retain existing character of walking routes along Gough Burn;
- Investigate pedestrian/cycle links between Core Path 39 and Rowett South, taking into account the existing stream and topography;
- Provide allotments within open space to south of woodland area;
- Manage and maintain mature woodland corridor along Gough Burn;
- Designed parkland landscape within parkland open space to south of Gough Burn including specimen tree planting, SUDS features, path network and other functions detailed above;
- Provide large-scale equipped play zone which may derive its character from the adjacent woodland area and take advantage of opportunities for natural play within the trees; and
- Existing public car parking within OP20 access off driveway and additional public car parking at west within OP21 adjacent to allotments.

M2. Burnbrae Commons (c5.8 hectares)

An area of predominantly open space with an informal character is proposed on the southern boundary of OP22 to the north of the existing Burnbrae Moss which is outwith the Framework site. This serves multiple recreation functions but also serves as a buffer between development and the landscape of Bucksburn LNCS itself. As with Gough Burn Park, there is the potential to make a valuable link between the park and the adjacent primary school block. Functions within the space include allotments and a large-scaled equipped play zone. Parking is to be provided which allows for potential pedestrian/cycle/equestrian connections south onto Core Path 42 which runs along the Bucks Burn. The character of the open space should largely reflect the natural condition of the Burnbrae Moss and a formal landscape approach is not appropriate.

The following principles and functions should be considered:

- Associate primary school with park and allow safe and direct linkages between the two functions;
- Create buffer to Bucksburn LNCS and Burnbrae Moss;
- Create informal landscape area comprising mainly open space with pedestrian/cycle routes;
- Provide large-scale equipped play zone and part of playing fields associated with primary school;
- Potential to improve character and biodiversity of drainage channel which defines southern boundary;
- Provide connections to the edge of the site which would allow for links by others to the south;
- Maximise extent of natural greenspace; and
- Creation of a wetland habitat along the southern boundary at Burnbrae Moss will be considered as part of the relevant Masterplan for OP22.

5.5.6 Neighbourhood open space

Over 40 hectares in total have been identified which would be appropriate as Neighbourhood open space. Six main spaces are described below; further detail on Neighbourhood open space will be provided as part of the masterplan for the relevant site. These are generally linear open spaces that take advantage of specific existing landscape features and vary in character from formal parks to highly programmed community resources, playing fields and associated play zones. The key neighbourhood spaces which have distinctive identities are described below with their respective functions and identities. Other neighbourhood spaces are highlighted on the corresponding figure; their precise function and character is best determined at masterplan stage or once the detail of the surrounding development is established.

N1. Craibstone Parkland and Driveway

The driveway and parkland should provide a central focus within Craibstone and connect the surrounding residential areas. The structure and layout should maintain and enhance the characteristics of the arrival spaces to Craibstone estate. The Framework identifies a large area of open space to accommodate a equipped play zone with a network of paths connecting the surrounding residential and mixed use areas through the park. Woodland and open spaces also combine to form a significant natural corridor which allows for various recreational functions whilst also providing connections to a wider woodland network. The area has a variety of habitat types, from mature woodland and meadow grassland to riparian margins and SUDS basins. A play zone is identified within this area on an area of semi improved neutral grassland which is currently used intensively by SRUC for teaching and as such will provide a suitable location for such a facility, avoiding some of the more environmentally sensitive areas within the Estate.

The following principles and functions should be considered:

- The parkland space should be designed as the main arrival space into the estate, revealing views to key buildings and built edges;
- Retain the existing alignment of Core Path 38 through the parkland;
- A segregated footpath should be provided to the southern side of the driveway where possible, with connections to Core Path 39 and adjacent residential areas;
- A network of path should connect surrounding residential spaces, the SRUC campus and the village core;
- The space should be refined and maintained as a high quality parkland space, with all unnecessary fences and structures associated with the current use as a campus removed to simplify the space;
- The character of the space should be of an estate parkland, with the mature trees and areas of rough meadow grass combined with areas of mown grass for play;
- Provide an equipped play area with paths providing safe and easy access from all the surrounding residential areas;
- Include outdoor meeting areas, informal play areas and areas for seating as a resource for the wider community;
- Where the SUDs facilities are required, they should be designed as an integral part of the open space; and
- Areas for visitor car parking including existing public car parking off the driveway should be provided.

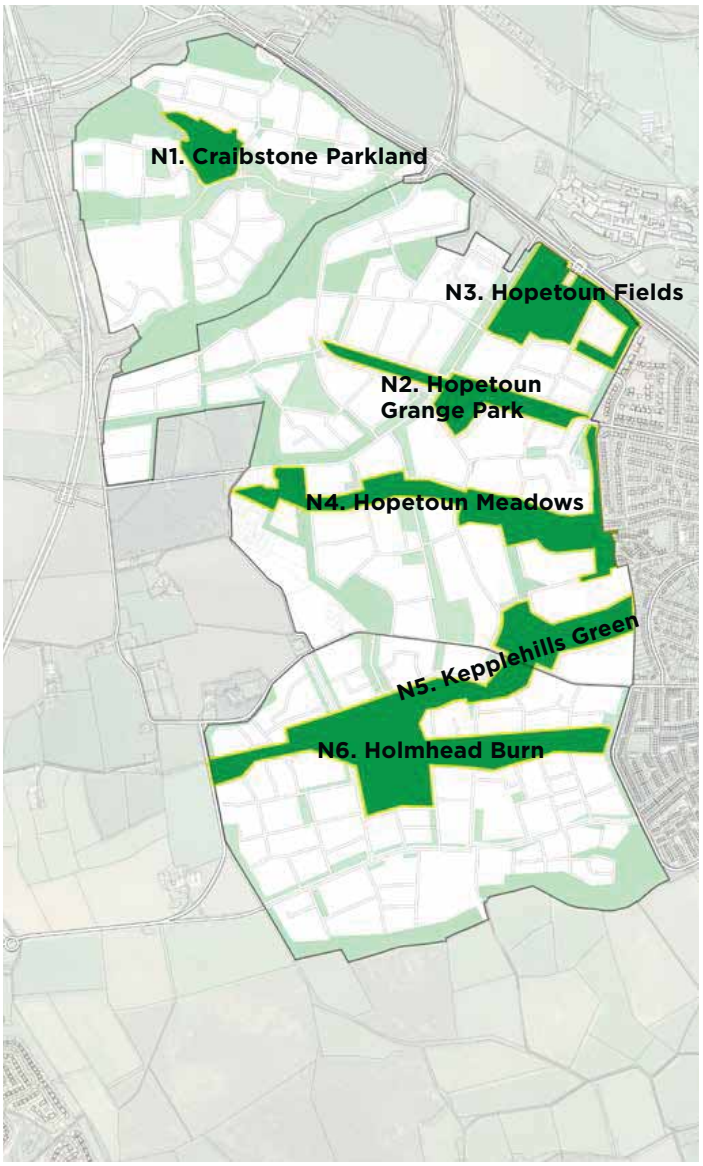


fig. 55: Identified neighbourhood open spaces

fig. 56: Major open space M1. Gough Burn Park.

N2. Hopetoun Grange Park

This largely formal space encompasses and protects the existing tree avenue along Hopetoun Grange. Given the carriageway dimensions along the existing road, it is not possible to safely accommodate pedestrian and/cycle movement adjacent to vehicle movements on the current road alignment. It is therefore proposed to divert vehicular traffic to the north and south and allow this section of Hopetoun Grange to become a traffic-free route. The existing alignment will therefore form a strong pedestrian/cycle spine and be extended westward to form a linear park leading to the block identified for the north primary school. The existing tree avenue is to be protected and augmented by a parallel line of trees which will in time form a new structural landscape element. Open space to the south of the avenue would suit the staging of community events such as outdoor markets.

The following principles and functions should be considered:

- Provide equipped play zone;
- Support vehicle-free route between primary school and Hopetoun Grange residential area;
- Accommodate east-west equestrian route;
- Design open space to accommodate community events;
- Space is appropriate for formal landscape parkland designs; and
- Consider long-term management of mature tree avenue and plan for replacement avenue to south;

N3. Hopetoun Fields

Open space adjacent to the A96(T) which accommodates playing fields, play zones and acts as formal open space buffer to the road. Existing tree boundaries are to be retained and replacement specimen tree planting to be considered to replace trees which are over-mature.

The following principles and functions should be considered:

- Accommodate playing fields/surfaces and associated changing facilities; and
- Provide equipped play zone;
- Consider long-term management of mature trees along A96(T) and plan for replacement specimens;
- Create formal open space buffer to road to provide appropriate set back for residential areas to south;
- Accommodate linear SUDs features; and.

N4. Hopetoun Meadows

A series of open spaces shaped by the distinctive existing topography along a dry stream running east-west from Christie Grange to Hopetoun Avenue. These spaces should be considered together as a significant community resource which provides multiple functions from allotments to Multi-Use Games Areas (MUGAs). Existing tree belts at either end of the space are to be integrated along with existing dry stone dykes which fall within the space.

The following principles and functions should be considered:

- Provide equipped play zone;
- Provide allotments to west end of space;
- Accommodate linear SUDs features; and
- Provide east-west pedestrian route through space.

N5. Kepplehills Green

A series of open spaces within a valley formed by topography running largely east-west and split by Kepplehills Road. The character of this open space should be continuous on both sides of Kepplehills Road in order to tie the two sides of the development together. Other distinctive features which should contribute to character include the existing line of mature trees (subject to a Tree Preservation Order) to the north and the low-lying nature of the land which gives the land a tendency to gather water. Consideration should be given to continuing the existing line of trees to the south towards Kepplehills Road. A series of SUDs features will be required to run through the space. There is the potential to restore to the open air, the flow of water which currently exists in a culvert north of Kepplehills Road.

The following principles and functions should be considered:

- Extend existing tree avenue southwards;
- Design specific SUDs response;
- Potential to create a wetland feature;
- Investigate daylighting of culvert (ie. restore flow of water to the open air);
- Provide equipped play zone; and
- Provide other areas of woodland blocks running north south to continue green corridors;

N6. Holmhead Burn

An unnamed watercourse runs centrally within Holmhead Burn open space. Varied series of spaces separated by woodland blocks. Multiple functions.

The following principles and functions should be considered:

- Accommodate playing fields/surfaces and associated changing facilities;
- Provide equipped play zone;
- Provide allotment area;
- Accommodate linear SUDs feature; and
- Include woodland blocks to create north-south green corridors.

5.5.7 Local open space

Local space is distributed throughout the Framework area and generally associated with retained landscape features, at key junctions or other linking spaces which support pedestrian and cycle movements. Design principles and functions will be determined at the appropriate masterplan or detail design stage.

fig. 57: Nighbourhood open space N4. Hopetoun Meadows.

fig. 58: Open space categories

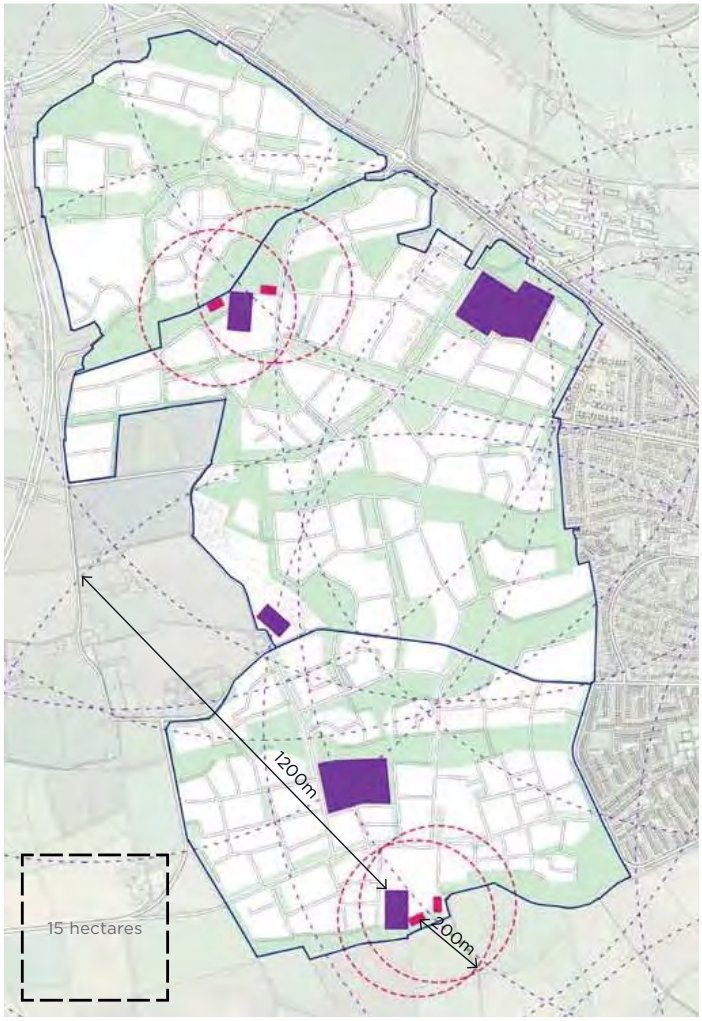


fig. 59: Outdoor sports and MUGAs with accessiblity distances

5.5.8 Open Space Category

In addition to identifying various scales of open space, the Framework illustrates the various categories of use which are to be accommodated within them. The ACC Open Space Supplementary Guidance specifies the appropriate provision for each category, based on a target area provision for a notional population. Given that an exact housing mix for Newhills is not fixed at this time, the potential population within the Newhills Framework area is calculated based on 2.19 people/ household - this ratio is found in the latest release from the 2011 Census (Census 2011 Release 1B March 2013). This is comparable to the provision of 2-3 bedroom units according to the "Average Household Size (persons)" figures contained within the SG document. The indicative population at Newhills is therefore approximately 9213.

5.5.9 Play zones

A range of play zones are distributed across the Framework area to ensure that residents are within 400m. Around 3.5 hectares is provided in a range of sizes and locations - this is in excess of the 2.9 hectares required. As far as practical these play zones have been positioned where they can benefit from passive surveillance and overlooking from adjacent residential properties. Locations for large scale play zones have also been identified, generally within areas of Major Open Space. The potential for 'ad-hoc' play through use of existing natural features and landscape elements will be investigated at the appropriate detail stage of design. A combination of formal and natural play is envisaged within the Framework, responding specifically to surrounding character of the development and existing features.

5.5.10 Outdoor sports and recreation areas

The ACC Open Space SG suggests 1.6 hectares of sports facilities are required per 1000 population. The required provision for the anticipated population at Newhills if the full housing allocation was achieved has been calculated at 9213/1000=9.213x1.6=14.7 hectares. After considerations of housing allocation numbers, required infrastructure, topography and drainage, there are limited areas of land which could potentially accommodate the full provision of large-scale outdoor sports surfaces such as pitches without compromising further the ability to deliver the ALDP allocation.

The provision is set out below, however this is subject to detailed input from Education, Culture and Sport in relation to the particular uses required. The details of specific sports provision is to be agreed through the relevant masterplan.

Identified provision within Opportunity Site	Area (hectares)
Playing fields to north-east of OP21	2.72
Playing fields centrally located within OP22	2.02
Playing fields at Primary Schools	1.2
Existing field at Newhills Nursing Home	0.7
Total	6.64

As development blocks and associated infrastructure will be designed to minimise earth-modelling, it is not envisaged that significant and costly areas of flat ground to accommodate further large-scale outdoor sports areas will be economically feasible. Figure 61 overleaf illustrates other facilities nearby that offer large-scale playing surfaces.

Although it is recognised there is a shortfall in areas identified for sports pitches, the Newhills site can accommodate other types of outdoor sports and recreation provision which are listed within the Open Space SG. With this in mind two strategies have been adopted, both of which are more appropriate responses to the existing character and inherent physical challenges of the area and which in turn can provide a more diverse range of sporting and recreation activities:

1. Provide smaller scale, high quality playing surfaces which do not require extensive areas of relatively flat land. Where appropriate these are clustered around the primary schools and other groups of sports pitches; and
2. Accommodate outdoor activities other than those which require large scale playing surfaces.

Purpose-designed and built playing surfaces in the form of high quality MUGAs are proposed which would provide a further 0.5 hectares of highly functional sports areas. These can be used intensively for a more diverse range of sports and by a broader user group than large scale pitches; these facilities will contribute to a more socially interactive community and will benefit the wider feeling of identity and place. Four MUGAs, each individually measuring 37mx18.5m are indicated clustered around the primary school sites in locations where topography would otherwise be a limiting factor on larger-scale pitches. At Masterplan stage further discussions will be had with the Council's Education, Culture and Sport Officers

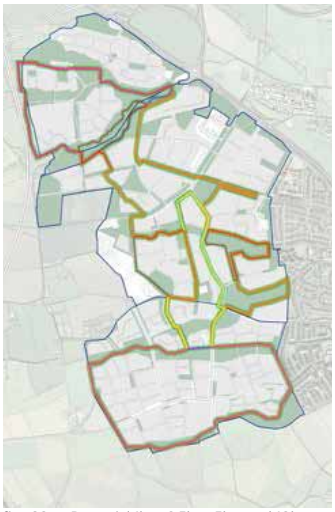


fig. 60: Potential 1km, 2.5km, 5km and 10km circuits for recreational activities within associated open space corridor

fig. 61: Existing and proposed outdoor sports areas in the vicinity

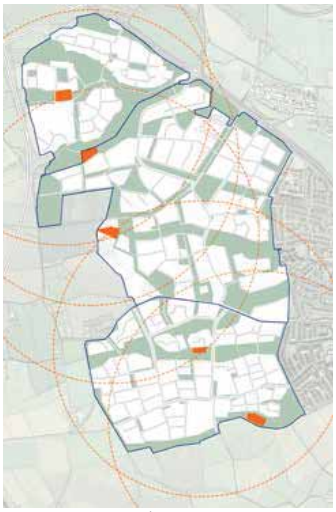


fig. 62: Allotments/Community Gardens with accessibilty distances

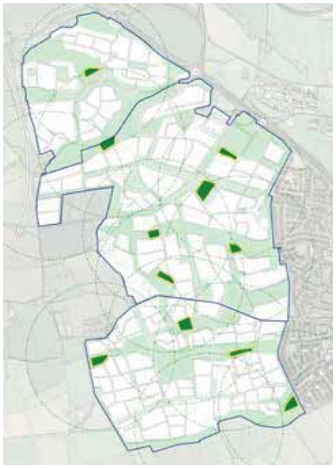


fig. 63: Play zones and accessibility distances

fig. 64: Natural Greenspace and Green Corridors

to determine whether there are any opportunities to introduce additional purpose designed MUGAs into the development to contribute to more socially interactive community areas. This should include considerations of technical design such as floodlighting and the impact on surrounding areas in which they reside.

Whilst the SG examples relating to outdoor sports are mainly focused on playing fields and pitches, there are other activities which are more suitable to the open spaces corridors of Newhills, such as cross-country trails for running, biking or horse-riding. These can be readily accommodated within the proposed network of green spaces and corridors and offer the opportunity for organised cross-country events which combine recreation and competition. The design and strategy for these routes will require to be agreed with the Education, Culture and Sport team in order to determine details such as wayfinding and surface design so that they are integrated within the wider open space network. The width and alignment of these routes are subject to topographical constraints and should respond appropriately to the surrounding spaces; they will be detailed through the Masterplans. Assuming a corridor of between 5m and 7.5m along these routes (which gives an allowance for the natural or artificial surface itself and any associated landscape) results in the provision of around 6-8.5 hectares of open space for such activities.

The figure above illustrates how circuits might be accommodated within specific corridors to allow for 1km, 2.5km, 5km and 10km circuits which are largely traffic-free and have minimal crossing points over the street network.

In summary the following provision for outdoor sports and recreation has been identified:

- 6.69 hectares pitches/playing fields
- 0.5 hectares MUGAs
- 6-8.5 hectares cross-country/long-distance routes
- Total: 13.19-15.69 hectares

Depending on the detailed design of the areas described above (via the masterplan process) discussions may be required with the Planning Gain Team to determine if a further off site contribution is required. Offsite contribution will be secured via the relevant legal agreement.

Indoor sports

An additional indoor sports area is provided within the SRUC campus proposals which will be open to the public - this comprises a main hall with gym and changing facilities and measures approximately 470m² (subject to SRUC sign off).

Block GL:24 within OP22 has been identified for an addiitional games hall/gym if required.

5.5.11 Natural Greenspace and Green Corridors

Around 9.7 hectares of open space which could function as natural greenspace and green corridors is the minimum requirement for the full anticipated population at Newhills. Because of the nature of the site with significant areas of woodland, watercourses and other landscape features the diagram above identifies over 40 hectares of open space which should be considered for Natural Greenspace and green corridors functions. The emphasis at subsequent masterplan stages should therefore be on:

- The definition of specific parts of these spaces solely for Natural Greenspace;
- The specific character and quality of these spaces; and
- Ensuring that they function to maximise biodiversity and ecological opportunities.

In general, east-west corridors follow existing watercourse/drainage valleys whilst north-south corridors pick up on existing tree lines and boundaries and propose additional woodland blocks and associated open space that can structure the surrounding residential areas.

5.5.12 Allotments and Community Gardens

Locations for allotments have been identified throughout OP21 and OP22.

The detail design of these areas will be considered at masterplan stage in order to investigate issues of visual impact, security and integration with open space. Appropriate buffers will be provided between the allotments and an adjacent watercourses. Around 1.7 hectares are provided - this is in excess of the 1.33 hectares required in order to meet accessibility standards.

Given the nature of the residential typologies envisaged at OP20 which will in most cases ensure residents have their own private garden space for such activities, the use of the existing walled garden as a community resource provides the required area. The existing walled garden in its entirety, including the surrounding wall is retained to be enjoyed as a public space within the site. The walled garden should be maintained to the existing high quality and the appropriate mechanism for management and community engagement will be specified at the next stage of detail.

The long-term maintenance of open space areas is particularly important and needs to be considered at an early stage. Pressure on limited Council maintenance resources for adopted areas must be considered and alternatives in the form of private factoring or community trusts are likely to be the most appropriate management mechanism. Dialogue on such arrangements should be entered into as early as possible and further detail provided via the relevant Masterplans.

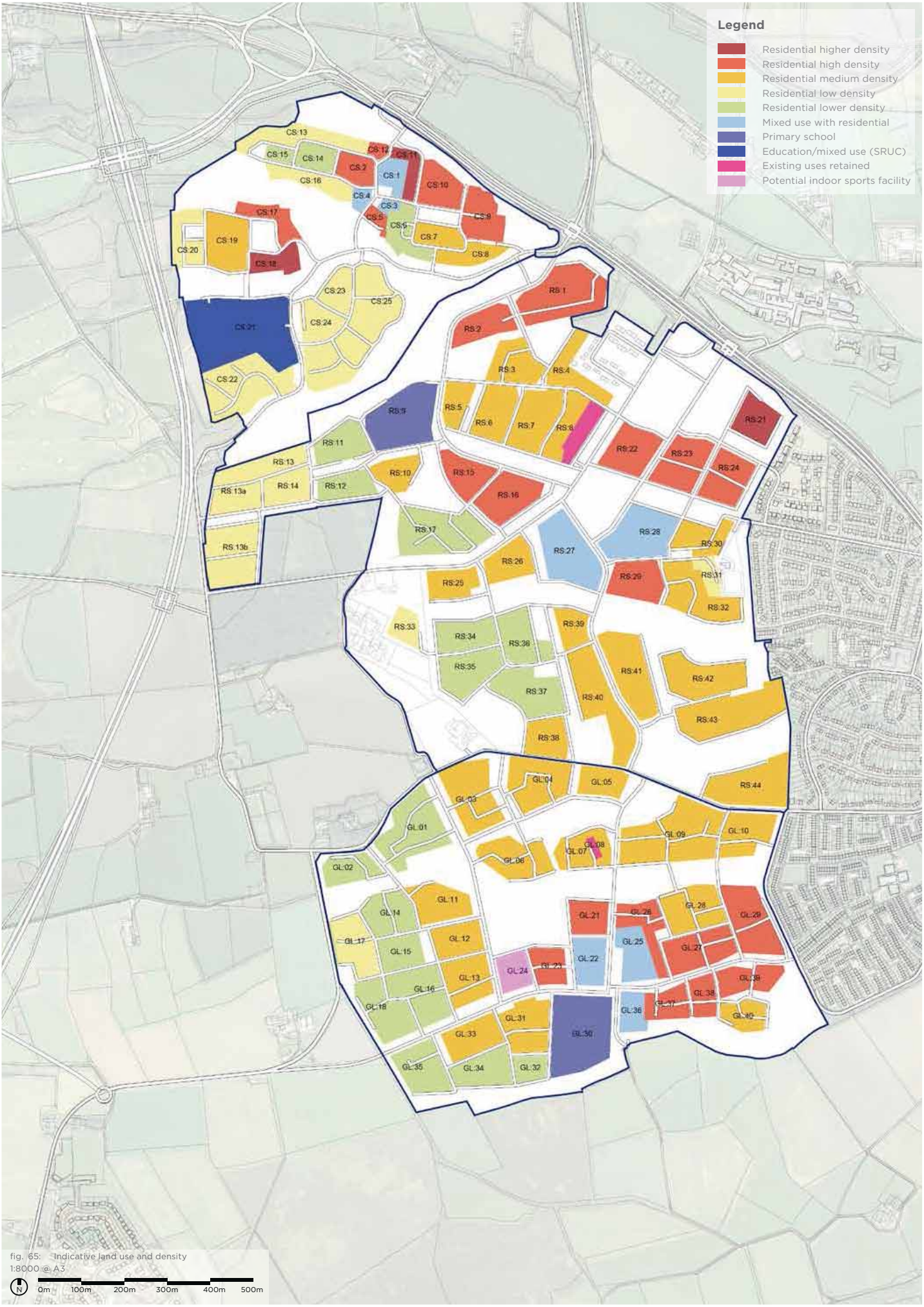


fig. 65: Indicative land use and density
1:8000 @ A3

5.6 Land Use and Density

This section sets out the key land uses and residential densities proposed for the respective Opportunity sites within the Framework.

5.6.1 Land use

The predominant land use across the Newhills Development Framework will be residential with supporting mixed-use areas and provision of primary school education facilities. A new health centre which may include a dental surgery is to be located within the site. In addition the consolidated campus at SRUC will provide a variety of uses including student halls of residence, research, teaching and consultation spaces. Shared facilities include lecture hall, break-out and cafe and gym hall. This variety of land uses will help to ensure a varied mix of functions within the site and an associated diverse community.

5.6.2 Development capacity

As is evident from the development tables within this section, the full ALDP allocation assigned to OP20 is not achieved at Craibstone South. This is due to technical and physical constraints to development on the site which have been tested by OPEN along with engineers and architects from the promoter in parallel with the Development Framework process. The developable area at OP20 has been significantly reduced through:

- The retention of existing woodland areas including Ancient Woodland;
- The retention of watercourses and an appropriate buffer space along their length;
- Existing steep slopes which either preclude development entirely or dramatically reduce the density of housing which can be accommodated;
- The provision of areas for drainage and associated earthworks; and
- The retention and accommodation of SRUC functions and buildings;

When these constraints are taken into account and those areas required to retain the important existing estate character the developable site area reduces from 42.50 hectares to a little under 18 hectares. In order to achieve the ALDP allocation of 1000, an overall residential density of over 55 units/hectare would therefore be required across all development blocks. This is not an appropriate net density for the landscape at Craibstone and the Development Framework has assigned densities which take into account the physical characteristics of the site and the specific vision for the site. Applying these densities indicate that 700-800 residential units could be accommodated without jeopardising the existing character whilst still producing a sustainable neighbourhood at around 32-37 dwellings/hectare.

There are also development constraints apparent within OP21 relating to steep existing slopes and mature tree blocks which have been identified for retention. The opportunity site also encompasses existing properties that are not within the control of the main land owner and for which there are no proposals. The potential developable land is therefore reduced, however the site analysis has demonstrated that the site can generally accommodate higher residential densities, particularly along the A96(T). High density blocks are also clustered around mixed use areas to provide a sustainable population which can support non-residential uses. A variety of densities is utilised across OP21 to give a net residential density of around 40 dwellings/hectare.

OP22 is possibly the least constrained site as it does not contain significant landscape features and has less extreme topography. High density blocks are located adjacent to the existing residential area of Bucksburn although density drops significantly across the site to the west to give an appropriate low-density edge to the retained green belt. A net residential density of around 37 dwellings/hectare is similar to the existing density within the adjacent residential area.

5.6.3 Residential density

Consideration of an appropriate residential density for each development block is fundamental to the success of the place, determining sustainable population levels, influencing character and defining specific neighbourhoods. The strategy for residential density varies across the respective Opportunity Sites, but there is a common principle adopted to ensure that densities generally step down from east to west to give an appropriate lower density character to the retained rural western boundary. Elsewhere, densities generally reflect the existing nature of adjacent residential areas except at the A96(T) where it is considered appropriate to position higher density areas to reflect the proposed intensity of uses planned for the site opposite. High density blocks are also generally clustered around mixed-use blocks in all three Opportunity Sites in order to provide a sustainable supporting population and encourage the formation of various focal points and neighbourhood centres.

Given the large-scale extent of the site and the quantum of development envisaged, a wide range of residential densities have been applied. These range from low density, 'city-edge' conditions of less than 25 dwellings per hectare up to high density 'urban' character where perimeter blocks of flats and apartments up to 4 storeys might be appropriate with terraced house infill. The residential density ranges fall within the following ranges which have been applied to the development block areas to give an indication of the potential residential units which might be delivered:

- Lower density: up to 25 units/hectare
- Low density: 25-35 units/hectare.
- Medium density: 35-45 units/hectare.
- High density: 45-65 units/hectare
- Higher density: over 65 units/hectare

Where mixed use blocks are identified, an allowance for residential units has been made by applying a 'special' density range of 15-40 units/hectare.

5.6.4 Potential development outputs

The potential development outputs for the respective Opportunity Sites are set out in the tables below.

Development Block	Block Area (Hectares)	Land use	Proposed Residential Density Range	Potential Residential Units (Lower)	Potential Residential Units (Upper)
OP20: Craibstone South (CS)					
CS:01	0.41	Mixed use + resi	Special	16	16
CS:02	0.52	Residential	High	32	32
CS:03	0.10	Mixed use + resi	Special	4	4
CS:04	0.18	Mixed use + resi	Special	5	5
CS:05	0.26	Residential	High	15	15
CS:06	0.78	Residential	Low	20	20
CS:07	0.57	Residential	Medium	22	22
CS:08	0.57	Residential	Medium	20	20
CS:09	1.05	Residential	High	50	50
CS:10	1.08	Residential	High	60	60
CS:11	0.47	Residential	Higher	40	40
CS:12	0.15	Residential	High	8	8
CS:13	1.06	Residential	Lower	24	24
CS:14	0.49	Residential	Low	16	16
CS:15	0.29	Residential	Low	8	8
CS:16	0.61	Residential	Lower	15	15
CS:17	0.58	Residential	High	35	35
CS:18	0.55	Residential	Higher	40	40
CS:19	1.17	Residential	Medium	48	48
CS:20	0.85	Residential	Lower	18	18
CS:21	3.48	Mixed use/Education/ Student housing (SRUC)	Special	100	200
CS:22	1.99	Residential	Lower	32	32
CS:23	0.57	Residential	Lower	13	13
CS:24	0.71	Residential	Lower	13	13
CS:25	3.14	Residential	Lower	46	46
	21.63			700	800

Note: Site investigation at OP20 has progressed further than the other opportunity sites within the Framework allowing more certainty as to potential residential outputs per block. Specific density ratios have there been applied to respective plots to reflect development conditions rather than a range being applied.

Note: Figures within tables for OP21 and OP22 have been amended to reflect impact of providing additional sports provision.

Development Block	Block Area (Hectares)	Land use	Proposed Residential Density Range	Potential Residential Units (Lower)	Potential Residential Units (Upper)
OP21: Rowett South (RS)					
RS:01	2.02	Residential	High	111	117
RS:02	0.88	Residential	High	48	51
RS:03	0.99	Residential	High	55	58
RS:04	0.85	Residential	Medium	34	36
RS:05	0.59	Residential	Medium	24	25
RS:06	0.98	Residential	Medium	39	41
RS:07	1.23	Residential	Medium	49	52
RS:08	0.66	Residential	Medium	26	28
RS:09	1.89	Primary School	None	0	0
RS:10	0.66	Residential	Medium	26	28
RS:11	0.90	Residential	Low	27	29
RS:12	0.75	Residential	Low	23	24
RS:13	0.60	Residential	Lower	12	13
RS:13a	0.99	Residential	Lower	20	22
RS:13b	1.64	Residential	Lower	33	36
RS:14	0.73	Residential	Lower	15	16
RS:15	0.82	Residential	High	45	47
RS:16	1.15	Residential	High	64	66
RS:17	1.91	Residential	Low	57	61
~~RS:18~~	These blocks omitted in order to provide additional playing fields.				
~~RS:19~~					
~~RS:20~~					
RS:21	0.86	Residential	Higher	60	62
RS:22	1.08	Residential	High	59	61
RS:23	1.19	Residential	High	65	68
RS:24	1.05	Residential	High	58	60
RS:25	0.72	Residential	Medium	29	30
RS:26	0.84	Residential	Medium	34	35
RS:27	1.68	Mixed use + resi	Special	50	54
RS:28	1.56	Mixed use + resi	Special	48	52
RS:29	1.02	Residential	High	56	58
RS:30	0.85	Residential	Medium	34	36
RS:31	0.40	Residential (Hope farm)	Lower	8	9
RS:32	1.56	Residential	Medium	62	65
RS:33	0.50	Residential	Lower	10	11
RS:34	0.86	Residential	Low	26	27
RS:35	1.10	Residential	Low	33	35
RS:36	1.05	Residential	Low	32	34
RS:37	1.33	Residential	Low	40	43
RS:38	0.79	Residential	Medium	31	33
RS:39	0.57	Residential	Medium	23	24
RS:40	1.83	Residential	Medium	73	77
RS:41	1.57	Residential	Medium	63	66
RS:42	1.54	Residential	Medium	61	65
RS:43	2.08	Residential	Medium	83	87
RS:44	1.63	Residential	Medium	65	68
	47.90			1811	1910

Development Block	Block Area (Hectares)	Land use	Proposed Residential Density Range	Potential Residential Units (Lower)	Potential Residential Units (Upper)
OP22: Greenferns Landward (GL)					
GL:01	1.85	Residential	Low	55	61
GL:02	0.78	Residential	Low	24	26
GL:03	1.60	Residential	Medium	64	69
GL:04	1.46	Residential	Medium	59	63
GL:05	0.69	Residential	Medium	28	29
GL:06	1.29	Residential	Medium	52	55
GL:07	0.95	Residential	Medium	38	40
GL:08	0.08	Retained residential	None	0	0
GL:09	2.60	Residential	Medium	104	110
GL:10	1.04	Residential	Medium	42	44
GL:11	1.01	Residential	Medium	41	43
GL:12	0.78	Residential	Medium	31	33
GL:13	1.05	Residential	Medium	42	45
GL:14	1.02	Residential	Low	31	34
GL:15	0.71	Residential	Low	21	24
GL:16	1.26	Residential	Low	38	42
GL:17	1.17	Residential	Lower	23	27
GL:18	1.18	Residential	Low	36	39
~~GL:19~~	These blocks omitted in order to provide additional playing fields.				
~~GL:20~~					
GL:21	0.69	Residential	High	38	39
GL:22	0.77	Mixed use + resi	Special	23	25
GL:23	0.63	Residential	High	35	36
GL:24	0.58	Sports hall	None	0	0
GL:25	0.89	Mixed use + resi	Special	22	25
GL:26	0.89	Residential	High	49	51
GL:27	1.22	Residential	High	67	70
GL:28	1.22	Residential	Medium	49	52
GL:29	1.46	Residential	High	81	84
GL:30	2.32	Primary School	None	0	0
GL:31	1.15	Residential	Medium	46	49
GL:32	0.45	Residential	Low	13	15
GL:33	0.94	Residential	Medium	38	40
GL:34	0.97	Residential	Low	29	32
GL:35	1.13	Residential	Low	34	37
GL:36	0.54	Mixed use + resi	Special	13	14
GL:37	0.69	Residential	High	38	40
GL:38	0.53	Residential	High	29	30
GL:39	0.83	Residential	High	45	47
GL:40	0.63	Residential	Medium	25	27
	39.08			1403	1497

Summary

Opportunity Site	Development Block Area (Hectares)	Potential residential units
OP20: Craibstone South	21.63	700-800
OP21: Rowett South	47.90	1811-1910
OP22: Greenferns Landward	39.08	1403-1497
Total	108.61	3914-4207

5.6.5 Residential types

It is not appropriate to determine the precise mix of residential types at Development Framework stage, nor the precise capacity or development numbers, however the wide range of proposed residential densities will ensure that a mix of housing types can be provided at Newhills. Having a diverse mix of residences and tenures is critical to generating a good community composition where residents are able to select a property that is appropriate for their particular circumstances, regardless of their position in the housing lifecycle. Masterplans for the respective Opportunity sites will set out more detail, however it is anticipated that the development will provide a range of:

- Apartments and flats;
- Townhouses;
- Detached houses.
- Terraced units;
- Semi-detached houses; and

The final mix will be developed in response to market demand and detailed layout design, to ensure that appropriate neighbourhoods emerge which makes the most of the unique site. The aim is to appeal to a variety of residents and provide them with a choice of types of places for them to live and work.

5.6.6 Affordable Housing

The development will provide 25% affordable housing in accordance with ALDP. This housing will be provided on-site (where feasible) and will generally be distributed throughout the Framework area. An indication of phasing is set out within the respective completions rates for the individual sites in Chapter 6 but the specific timing will be determined by the phasing of associated infrastructure in order to balance viability and market demand.

Affordable housing will generally be located in areas which are:

- In close proximity to proposed mixed use centres and their associated retail and service provision;
- Well-connected in terms of footpath and cycle networks;
- Well-connected to the public transport network.

Following the above principles it is suggested that affordable housing is predominantly located around the mixed use core in Blocks CS:1-CS:11, RS:1-RS:2, RS:15-RS:29 and GL:20-GL:25.

5.6.7 Mixed use areas

The Framework identifies locations for mixed use areas which will provide support services for the new community. These will be in the form of small scale retail, commercial and community facilities and will be well integrated both vertically and horizontally with residential properties.

The densities allocated to such blocks allows for residential units above ground floor commercial, retail and community units; the detail of such housing types will be progressed at the subsequent masterplan stage. Opportunities for such development is identified along key routes and to address civic spaces. Retail provision may range from small scale "corner shop" units up to local supermarket size development.

5.6.8 Health centre and other uses

There is a requirement to identify land which would be suitable for the provision of a new Health Centre to accommodate a 13 GP Unit. Additionally a new 6 Chair Dental Surgery is required, however this facility could be included as part of the Health Centre. Block RS:28 has been indicated as an appropriate location for this use. It is assumed that the land take for this facility will be around 0.5 hectares.

Community Pharmacies are to be provided - locations for these should be identified during subsequent masterplans.

5.6.9 Education

The strategy for the provision of education is an ongoing process and more detail on the school provision and associated facilities (including sports facilities) will be provided as part of the Masterplan and planning application process for the relevant phase. The text below reflects the most up-to-date approach.

Secondary School provision

The secondary education catchment zone for the Newhills Development Framework area is Bucksburn Academy. There is currently limited capacity at this school to accommodate the proposed development.

The total proposed number of houses within the Newhills Expansion Area is 4440 houses. Applying a forecast pupil ratio of 0.15 secondary pupils per house, it is anticipated that a total number of 666 secondary pupils will result from the development. The Council's Education Team have advised that this is significantly below the total number of pupils that would be required to establish a viable new secondary school within the Development Framework site, and therefore it is their recommendation that alternative provision is made for secondary education within the existing school estate. No secondary school site has therefore been proposed within the Development Framework.

Secondary School Strategy

Subject to the progression of the Countesswells development, it is intended that pupils from Kingswells will be accommodated within the new academy at Countesswells, thus removing them from the current Bucksburn Academy catchment. This new academy at Countesswells is currently expected circa 2020. This could mean up to 170 pupil spaces becoming available at Bucksburn Academy (approximately 1333 residential units at ratio of 0.15 per residential unit). This will however be a gradual process as it is expected that Kingswells pupils already at Bucksburn Academy will remain at Bucksburn to finish their secondary education rather than transfer to Countesswells immediately upon the new school opening.

Outwith the zoned catchment area, there currently exists additional capacity at both Dyce and Northfield Academies which could potentially be utilised by the Newhills development on a temporary basis:

- Dyce: 130 – 170 pupil spaces (c.866 – 1133 houses)
- Northfield: 300 pupil spaces (2000 houses)

There may also be opportunities to extend either the existing zoned school (Bucksburn Academy) or an adjacent school to accommodate pupils from the development in the longer term.

The following principles for secondary school provision will be followed when progressing the subsequent Masterplans:

- A working ratio of 0.15 has currently been applied to assess secondary school provision, however this figure may be subject to review by the Council's Education Team at a later date;
- Short term capacity from the first phases of the development could be accommodated on a temporary basis within the existing capacities at Dyce and / or Northfield Academies, however a long term strategy needs to be confirmed via the relevant Masterplans;
- Transportation would be required from the Development Framework area to temporary accommodation to an adjacent school zone or where the appropriate safe routes to school cannot be provided in line with ACC policy; and
- A study is to be completed on the potential to increase capacity at Bucksburn Academy, and potentially other adjacent schools, to accommodate part or all of the Newhills development area. This may involve a subsequent rezoning exercise.

Primary School Provision

The current zoned primary school for the Newhills development area is Brimmond Primary. A new Brimmond School is currently under construction on the former Newhills Primary site, and this school is due to open to pupils in August 2015. This school will have limited spare capacity upon opening to accommodate the proposed development.

Based on the total proposed number of houses within the Newhills Expansion Area as 4440, this equates to a likely requirement of 888 primary pupils places based on 0.2 primary pupils per house. As Aberdeen City Council currently has a policy of building schools to accommodate either two stream (maximum of 420 pupil places) or three stream primaries (maximum of 630 pupil places), it is anticipated that two primary schools (one two stream and one three stream) will be required as a result of the development. This total provision would allow for 1050 pupils. As such, two primary schools have been provided within the Development Framework area.

Primary School Strategy

Primary school provision will initially be accommodated within existing school capacity within the existing and, where necessary, adjacent school zones, until such a time where appropriate pupil numbers have been generated to require construction of new schools. The detail and exact phasing of the school requirements will be identified in later Masterplans. The first new primary school on the site would be viable for ACC Education to operate from 120 – 140 primary pupils (600 – 700 houses), and should therefore be completed as soon as possible on site thereafter.

In the surrounding area, the existing Stoneywood Primary school is forecast to exceed capacity by 2015. There is a proposal to rezone part of the Stoneywood catchment area to Dyce Primary, subject to public consultation in Jan/Feb 2014, with implementation proposed for August 2014. A further re-zoning proposal, to move part of the existing Brimmond zone to Stoneywood, will take place in April – June 2014 with implementation in August 2015. This rezoning exercise is expected to relieve some pressure on Brimmond School's capacity.

A Business Case is to be prepared for a replacement Stoneywood Primary, possibly on the site of the former Bankhead Academy. This would be subject to consultation April/June 2014 and the replacement school would accommodate all pupils in the revised catchment area. The table below sets out the anticipated capacity at relevant nearby schools which could be utilised by development at Newhills prior to the construction of the first new primary school. Chapter 6 describes how the development might be sequenced spatially in order to utilise these capacities, balancing road capacity issues and anticipated completion rates.

Primary	Spare capacity for pupils	Equivalent housing units
New Brimmond School	20	100
Dyce	130	650
Total		750

The following principles for primary school provision will be followed when progressing the subsequent masterplans:

- A working ratio of 0.2 has currently been applied to assess primary school provision, however this figure may be subject to review by the Council's Education Team at a later date;
- New primary school on site would be educationally viable from 120 – 140 primary pupils (600 – 700 houses) and should be completed as soon as possible on site thereafter;
- A temporary arrangement for primary education provision within the Development Framework site would not be considered appropriate;
- Transportation would be required from the Development Framework area to short term temporary accommodation to an adjacent school zone or where the appropriate safe routes to school cannot be provided in line with ACC policy;
- Issues with transporting pupils from the Greenferns site to temporary provision in Dyce to be considered at appropriate detail stage;
- Delivery of new schools would be via Hubco North; and
- No provision for temporary accommodation to be provided at new Brimmond Primary.

5.6.10 Gypsy / Traveller Site

Responses received at the two public consultations on the Newhills Expansion Area show a strong opposition from the community to a Gypsy / Traveller site being delivered within the Development Framework. This opposition stems from the proximity of an existing travellers site at Clinterty and the on-going ACC feasibility study to deliver a short-term halting site at Howes Road (between Northfield and Bucksburn). Whilst acknowledging these comments, the identification of an appropriate 0.5 hectare site within the Development Framework is a requirement of the ALDP and the Planning Authority. This section therefore identifies two options for the location of this site which will allow ACC to subsequently consider them against established Council criteria. The land will be made available by the developers after the completion of Phase 2 of the ALDP allocation.

ALDP Policy H6 sets out the principle of development for Gypsy / Traveller site and provides general criteria relating to site suitability. In summary these are:

- Access to local services;
- Compatibility with adjacent character and impact on local environment or economy;
- Provision of essential infrastructure; and
- Site management.

A fuller set of assessment criteria will be utilised by ACC to assess these two options, however for the purposes of the Development Framework, Policy H6 provides the relevant rationale by which the two options have been selected.

Rowett South (RS: GTS)

An option has been highlighted to the western edge of the Opportunity site, south of the proposed playing fields area. The following issues have been considered as part of the site selection:

- Less than 10 minutes (800m) walk from Primary School site and mixed use area;
- Can be made compatible with the character of the surrounding area through provision of woodland buffer on visually sensitive edges to integrate with adjacent woodland areas;
- Site fits into general approach of “lower” residential density on western edge; and
- Close to existing unnamed road which provides direct access to the local road network.

Greenferns Landward (GL: GTS)

An option has been highlighted on the western edge of the Opportunity site adjacent to the existing Kingswells Distributor road. The following issues have been considered as part of the site selection:

- Less than 10 minutes (800m) walk from Primary School site and mixed use area;
- Can be made compatible with the character of the surrounding area through provision of landscape buffer on western and northern edges to integrate with watercourse corridor;
- Site fits into general approach of “lower” residential density on western edge; and
- Adjacent to existing C89 Kingswells Distributor Road which provides direct access to the local road network.

The final location must be agreed prior to any masterplan which covers one of the optional locations being completed/approved. This is to ensure that a masterplan is not approved which does not allow for the Gypsy / Traveller site.

5.6.11 SRUC site uses

The following uses are proposed within the SRUC site:

1. Ferguson Building Hub

Integrating new with existing, the Ferguson hub will provide research, teaching and consultation spaces with shared and recreational facilities.

2. Student residences

100 student residences and 1 warden’s flat within a series of 2 and 3 storey blocks. Student housing at OP20 will relieve pressure on general housing elsewhere in the City - it is therefore appropriate to include this housing towards overall housing allocation numbers.

3. Ancillary accommodation

Teaching and research spaces including engineering and horticultural facilities.

4. Car parking

165 no. spaces, generally provided on an as existing basis.

5. Energy centre

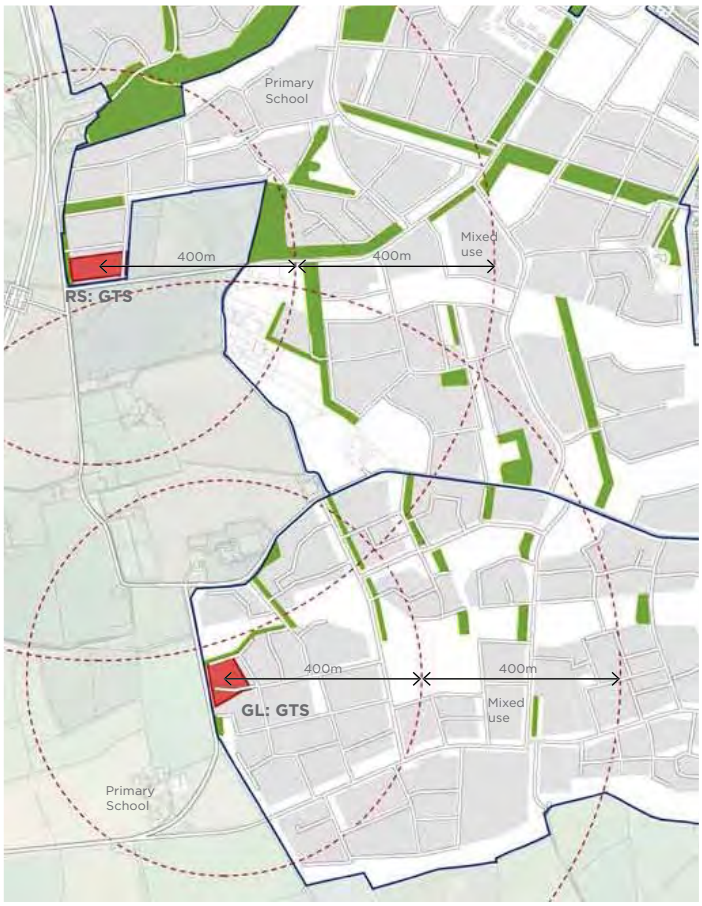


fig. 66: Gypsy / Traveller Site options.

Provided to facilitate a holistic approach to energy provision for the Campus that will allow for green energy production opportunities, now and in the future.

If SRUC were to vacate their current location in the future, then there is the potential for up to 200 residential units in this location.

5.6.12 Indicative building heights

Each development block has been assigned an indicative storey height range or maximum based on the expected landuse and density. They should not be considered as a fix however, as through detail design it may be apparent that some areas are more appropriate for higher or lower building types. A variety of storey heights should be utilised at detail design stage to ensure that a varied roofscape and associated streetscape emerges.

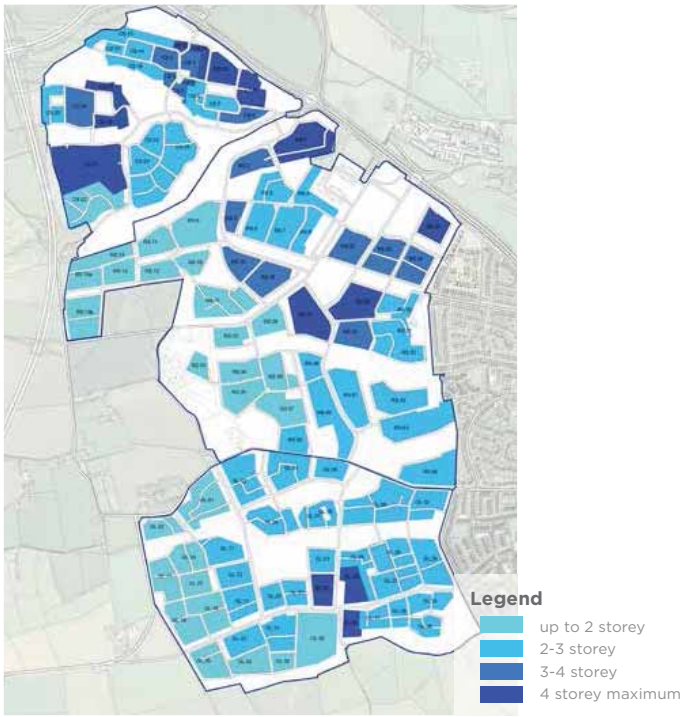


fig. 67: Indicative storey heights

5.7 Topography

As shown in the figures within Section 2.9 there are several areas of the development framework site with challenging topography. The overriding strategy for the design of the development is to work in harmony with the natural topography and take advantage of the opportunities it affords in terms of aspect and orientation. Nonetheless it is recognised that a degree of earth working will be required to deliver developable areas and meet acceptable infrastructure gradients. These earthworks will be designed as part of an integrated materials management strategy which will optimise the use of the materials won on the site both in terms of location and quality to deliver sustainable use of materials and minimise waste by design.

5.8 Drainage

An initial drainage assessment has been undertaken, based on the undernoted documents:

- SUDS Manual C697, CIRIA 2007
- SUDS for Roads
- Drainage Assessment – A guide for Scotland, SEPA 2005
- Sewers for Scotland 2, 2007.

Any Flood Risk Assessment will be carried out as part of the detail masterplan process for the relevant site if required.

5.8.1 Foul drainage

Foul drainage from the proposed development areas will be collected by a sewerage system designed in accordance with Sewers for Scotland 2, to standards which will allow adoption of the whole system of sewers and manholes and associated apparatus by Scottish Water.

The area is served by Persley Wastewater Treatment Works, which has some capacity and which will be upgraded as required by Scottish Water.

Foul sewers will generally run in parallel with surface water sewers and be located in streets, although there may be locations where sewer routes follow open space, as determined by detailed design. Following initial discussions with Scottish Water, proposed points of connection for the foul systems of OP20 (Craibstone South) and OP21 (Rowett South) have been established on the existing sewer network just north of the A96 trunk road. From there, Scottish Water currently proposes to upgrade a section of existing sewers within the adjacent Rowett North site, to provide capacity for the proposed development of these sites. OP22 (Greenferns Landward) will drain in a more south easterly direction to sewers in the vicinity of Kepplehills. The whole area is served by the Persley Wastewater Treatment Works, which currently has some capacity and for which Scottish Water is funded in order to provide capacity for future developments meeting Growth Project criteria, which are applicable to the above noted sites.

The foul network will consist primarily of gravity sewers. Within this foul network, due to the site topography and the location of the proposed points of connection, there will be some requirements for pumping, which will be established in detailed design.

5.8.2 Surface water

The surface water drainage system will be appropriately designed in line with the principles of sustainable drainage systems (SUDS). It will mimic the natural drainage of the catchment and mitigate many of the adverse effects of urban generated

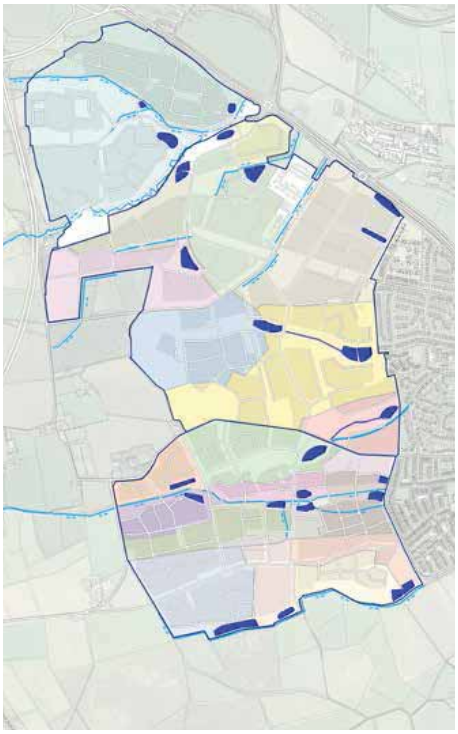


fig. 68: Indicative SUDs locations

surface water on the environment by:

- Manage runoff flow rates, reducing the impact of flash flooding and erosion;
- Encouraging natural groundwater recharge (where appropriate);
- Reduce pollutant concentrations in the run-off and protect or enhance the water quality while not contributing to diffuse or point source pollution on watercourses on site;
- Are sympathetic to the environmental setting and ecological status of onsite and receiving watercourses;
- Provide a habitat for wildlife and green space network connections and increase opportunities for biodiversity in urban areas;
- Contribute to the enhanced amenity and aesthetic value of developed areas; and
- Work towards objectives detailed in the Water Framework Directive and Area Management Plan.

The proposed surface water drainage measures will provide treatment of the run-off in accordance with the requirements of the SUDS Manual. In particular, roads and related areas will receive two levels of SUDS treatment. SUDS features will be designed to satisfy the adoption and maintenance requirements of Scottish Water and Aberdeen City Council and will be integrated into the landscape design, in order to create a natural appearance.

OP 20 (Craibstone South) is served by a minor watercourse, the Gough Burn, otherwise there are no identifiable watercourses within the prospectively developable area.

In accordance with the Drainage Assessment Guide, the rate and volume of post development run-off directed to these watercourses and collected in the SUDS system as a whole, will be restricted to the equivalent of pre-development greenfield run-off, by creating appropriate volumes of attenuation in features such as swales and basins. As part of detailed drainage design, sensitivity tests will be undertaken to assess overland flood risk associated with rainfall events up and including the 200 year event.

Consideration will be given to 'at source' SUDS measures in accordance with the matrix of available SUDS measures. These reduce sewer and basin sizes and may include porous paving, grass swales and grass or stone filter strips.

The surface water sewer system shall be designed and installed in accordance with Sewers for Scotland 2, 2007, with the intention that sewers will be adopted by Scottish Water and other surface water drainage features adopted either by Scottish Water, or by Aberdeen City Council. Road gullies and their connections to surface water sewers will be adopted by Aberdeen City Council.

Potential overland flooding from adjacent catchment areas of higher elevation than the proposed development sites is referred to in 2.8.4.

5.8.3 Potential Overland Flooding

Topography of the proposed development areas also generally displays very distinct gradients with an absence of low lying areas, but with noticeable valleys running across all areas, generally in a west east direction. Whilst these provide natural locations for drainage, they may also attract surface water run-off from adjacent areas or undeveloped areas of higher elevation than previously built phases. Therefore detailed design will consider the potential for the influx of overland surface flows from the predominantly agricultural ground which rises consistently in a westward direction. Land drainage, provided on a temporary basis, will be designed into individual phases of development to protect against overland flooding. These temporary measures will only be adequate if temporary attenuation is provided, unless of course the permanent SUDS measures referred to in 5.7.2 can be utilised. Therefore a feature of controlling potential overland flows will be attenuation, in addition to the more basic requirement to intercept and collect these flows by conventional means such as ditches and French drains.

In addition to potential flows arising from higher ground within the developable areas, on-site observation assisted by valuable local knowledge have identified very definite overland flows emanating from the wooded area on the higher ground at the west end of Forrit Brae. These surface flows originate on the even higher ground around Brimmond Hill and although they are to some extent contained west of the Kingswells to Craibstone side road, there is visual evidence that they cross this road in extreme conditions and may enter the developable area at its western boundary in the vicinity of Forrit Brae. It is therefore proposed to incorporate collection and attenuation features, particularly just within the western boundary of OP21 (Rowett South) in order to capture and attenuate these flows.

It is anticipated that a detention basin will provide primary attenuation and it is likely that a grass swale will be used, at least in part, to convey the attenuated flows in a safe and aesthetically acceptable manner on their downward path through the drainage system and to an eventual outfall.

5.9 Principles of sustainable design

Sustainability has been considered from the outset in the Development Framework and should continue to be developed in more detail within subsequent masterplan(s) for the respective sites. The decisions made at this early stage have a tremendous impact on the potential of the development to be an efficient, low energy community which can function without compromising the ability of future generations to meet their own needs. Early design decisions can be more effective than later decisions and are therefore critical to the success and efficiency of later strategies. When sustainable principles are considered and integrated from the outset, the opportunity is maximised for a successful and attractive place to emerge which encourages sustainable and healthy lifestyles, minimises energy use and pollution and provides stewardship of the natural and built environment.

The ACC SG "Low and Zero Carbon Buildings" sets out the methodology which developers should use to demonstrate compliance with Aberdeen Local Development Plan policy R7, which requires all new buildings to install low and zero carbon generating technology. Compliance with this requirement will be demonstrated by the submission of a low carbon development statement at detailed planning / Matters Specified in Conditions application stage.

5.10 Urban Design

5.10.1 Urban design principles plan

The diagram below sets out the key urban design principles in terms of frontages, relationship to backs of existing properties, opportunities for key defining corners and landmarks, key views to be considered and potential for street trees to contribute to character of street corridor.

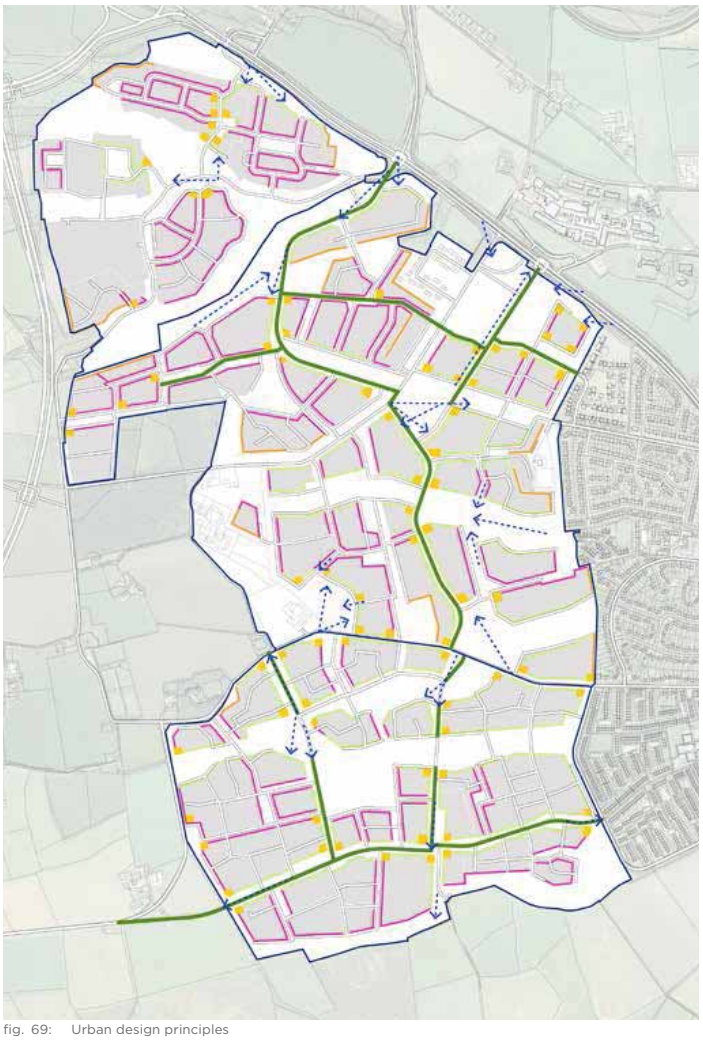


fig. 69: Urban design principles

Legend

- Primarily Continuous Frontage
- Secondary Frontage
- Rear of Properties to Back Onto Existing Backs / Woodland
- Key Building / Defining Corner / Landmark
- Key Views to be Considered
- Potential for Street Trees to Contribute to Character

Where a block has potential for activity and place-making in terms of frontage uses, two key forms of frontage are assigned:

Primarily continuous frontage

A frontage where there is no ambiguity to the public street front and a clear street elevation can contribute to an overall coherent urban scene. The parameter plans show the typologies appropriate for each block density and street hierarchy - a continuous or near-continuous frontage can be delivered with all of these housing types either through their inherent nature (ie. terraced and townhouse types) or through the use of connecting structures such as garages or boundary elements. By creating a proper sense of enclosure, public and private interfaces are clear and consistent which ensures a comfortable and secure environment for residents and visitors. Frontage of this type is typically indicated along principle streets and adjacent to open space and will help to clear establish a hierarchy of spaces.

Key principles / features of continuous frontage are:

- Composed predominantly of flats, terraces and townhouse residential typologies;
- Limited or zero set back from block edge
- Use of connecting structures between detached properties,

Secondary frontage

Where there is less significant movement of people and vehicles, it may be more appropriate to have a secondary frontage condition where buildings are not continuous along a block and public/private spaces are defined by other landscape elements such as boundary walls or hedges.

Key principles / features of secondary frontage are

- Detached, semi-detached and terraced residential typologies; and
- Variety of set backs.

Where building lines along both types of frontage can deflect and slow traffic this should be considered.

Relationship to existing properties

The diagram identifies where housing should be arranged “back or side-on” to the back gardens of retained existing properties in order to respect the amenity of these properties and prevent over-looking. This condition should also be considered where residential blocks back onto existing or proposed woodland planting in order to ensure an unambiguous security condition. Rear gardens in these locations can be contained through a variety of planting, walling, railings and fencing to create a secure treatment.

Landmark buildings / key corners

The establishment of locations for landmark buildings is crucial to both anchor a legible structure but also identify where ‘special’ buildings should be located. These buildings should be distinctive because of their function, quality of materials, detailing and considered architectural form. In some instances, the simple identification of a junction or corner which would benefit from a particularly positioned building is enough to create an urban marker which helps with wayfinding and orientation.

Key views

Opportunities to protect existing key views and define new ones have been highlighted. The detail design and layout of buildings should reinforce these views through consideration of building line, set back and architectural landmarks.

Potential for Street Trees

There are a number of street lengths where avenue trees should be considered to create identity and help to strengthen the hierarchy of routes. This draws from the highly successful use of avenue trees along Hopetoun Grange and shows how character can be established with simple landscape elements used repetitively.

The urban principles above and the likely building density set out in the land use chapter have been used to progress a three-dimensional model which can be seen below. This model has been used in the following section to describe and illustrate various character.

5.11 Character

A number of broad character areas have been identified across the Framework area which reflect a variety of anticipated approaches and identities. These will be progressed and refined at subsequent masterplan stages. In general, character areas draw from adjacent open spaces

Character area 1

Craibstone South “urban village” including village core, SRUC and village green. Wide variety of house types and densities which respond to specific existing character and landscape features. Residential areas contained within mature woodland. Steepest topography of site (largely to west and south) dictates low residential density comprising detached properties set within larger gardens to allow for slopes.

Character area 2

Area contained by existing topography and woodland boundaries to the north and by Forrit Brae to the south. To contain full range of residential densities from highest at A96(T) down to lowest at west end adjacent to proposed playing fields. Primary school to be fully integrated with potential for distinctive landmark building. Area of mixed residential types which is carefully planned to accommodate the retained housing areas at Forrit Brae and Eastside Gardens. Contains extension of Hopetoun Grange in form of formal parkland and tree avenue.

Character area 3

Area bounded by Forrit Brae to the north-east and the A96(T) to the north-west. Topography varies from relatively flat areas adjacent to the trunk road to rolling fields with local ridges and valleys. Residential density to respond to topography and centrally located mixed use blocks, shaped by principle streets from A96(T), field boundaries and existing avenue of trees along Hopetoun Grange. Linear park (Hopetoun Meadows) to be focus of housing area to south.

Character area 4

Largely medium density residential area which crosses Kepplehills Road to reflect the common underlying topography and landscape character. Area to take character and identity cues from central open space which runs as east-west valley between Holmhead Farm and rear of properties on Kepplehills Drive.

Character area 5

Diverse range of residential densities held together with common response to adjacent open space along Bucks Burn corridor. Includes high and medium density residential area centred on mixed use areas. Northern area takes cues from open space centred on watercourse corridor (Holmhead Burn) and southern edge from open space to Bucksburn LNCS. Public transport corridor link to Newhills Avenue. Medium and low density residential area of urban-edge character accommodating primary school. Links to edge of site to allow for pedestrian/cycle connections south onto core path network.

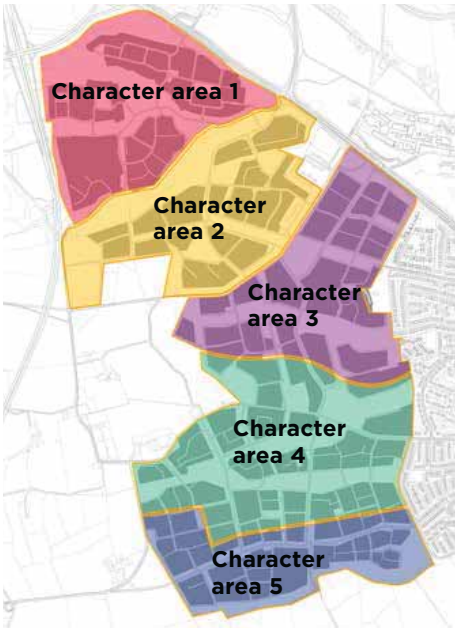


fig. 70: Indicative character areas

5.11.1 Character area 1

Key design principles and characteristics:

- Contains mixed-use village core and civic space;
- Converted existing buildings;
- Mix of residential densities from terraced properties and apartments around civic space to larger detached properties backing onto woodland;
- Integrated SRUC Campus;
- Enclosing woodland boundary on north and west;
- Village Green and community walled garden;
- Well integrated with existing mature woodland;
- Larger properties to account for existing steep slopes without requiring significant earthworks;
- Buildings to overlook existing landscape features and provide passive surveillance;
- Appropriate boundary condition to be determined with SRUC campus at detail stage;

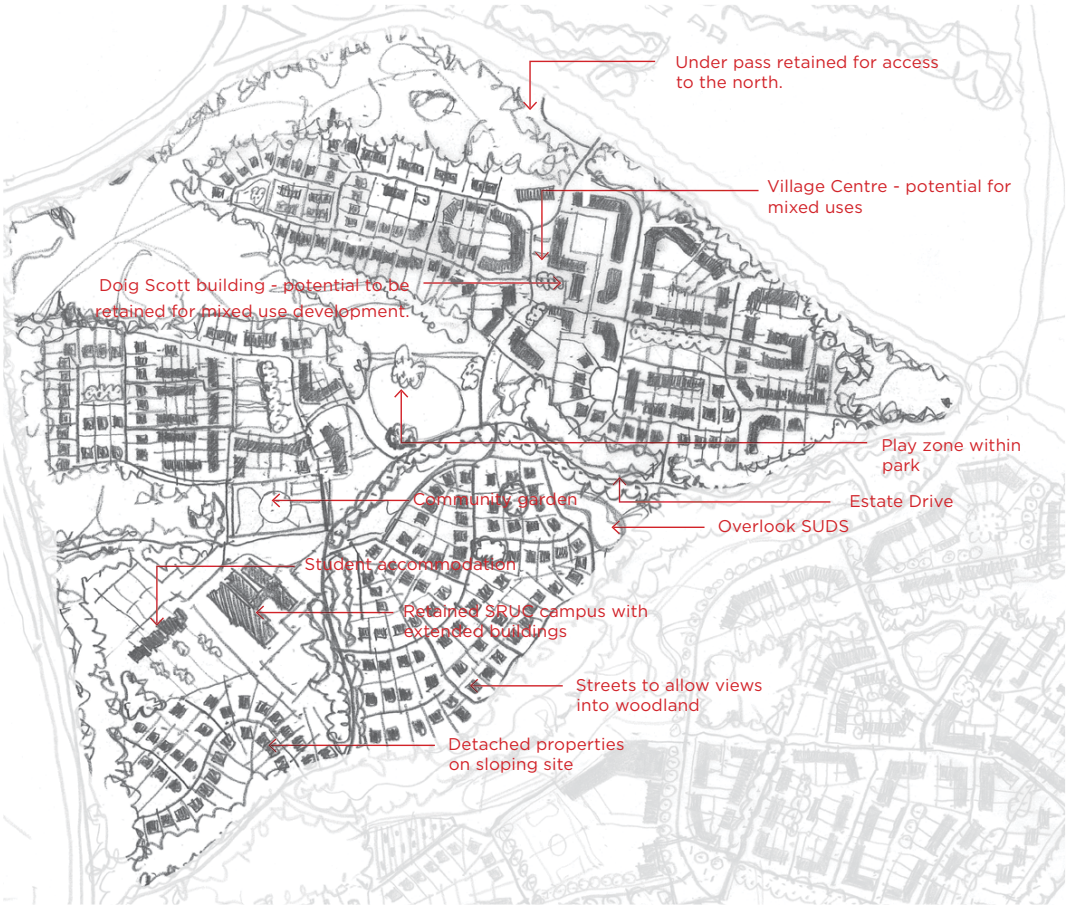


fig. 71: Character area 1: Sketch illustrating principles

Photo of existing green at Craibstone.

Doig Scott building - potential for retention and reuse

Relationship between mature trees and housing. Trinity Park

Mixed use at Poundbury

Abbotsford walled garden

3 -4 storey apartments will front the A96(T) and define key corners.

5.11.2 Character area 2

Key design principles and characteristics:

- Apartments and terraces fronting street from junction with Dyce Drive;
- High quality parkland associated with Gough Burn corridor containing opportunities for recreation and play;
- Primary school site and associated playing fields positioned at end of extended Hopetoun Grange tree avenue and associated open space;
- Lower density housing to west end;
- Retention and improvement of existing drainage channels; and
- Existing mature tree lines integrated into adjacent open spaces;;

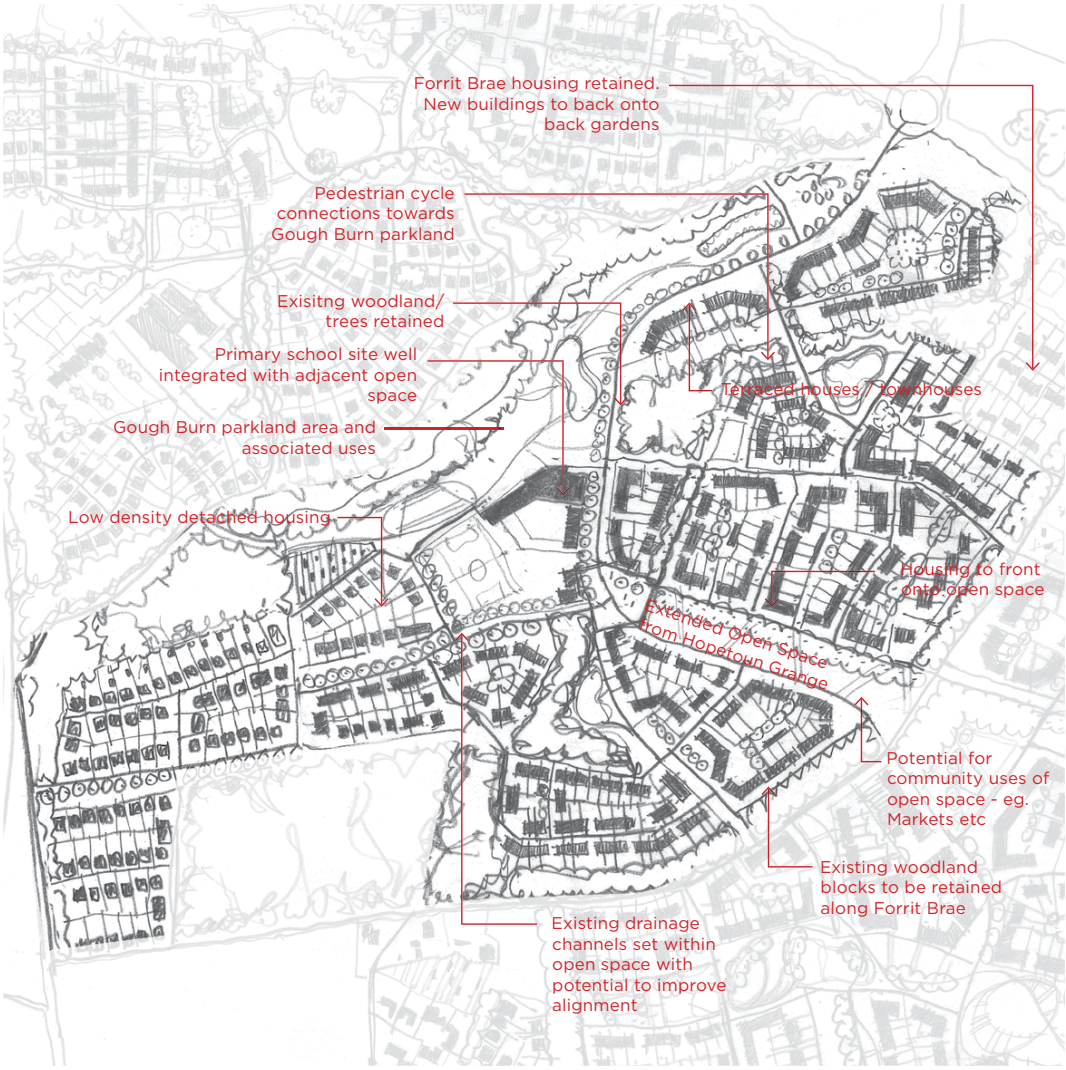


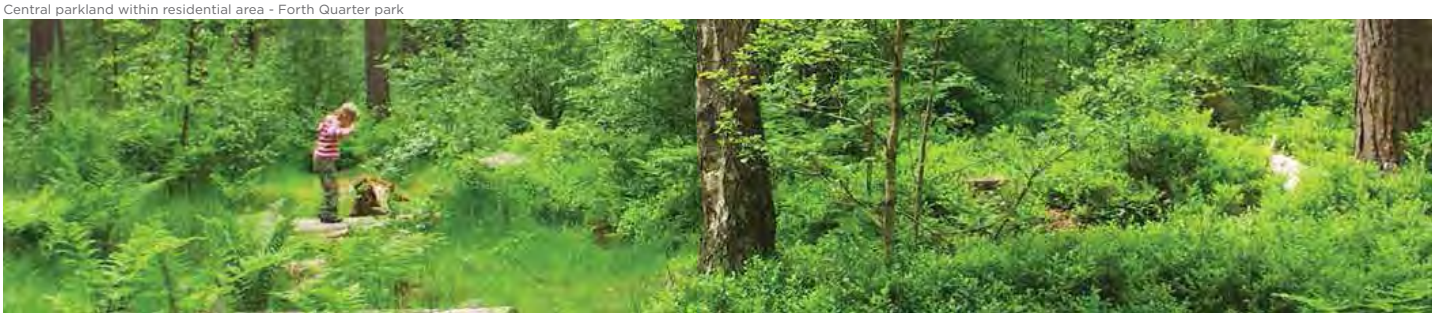
fig. 72: Character area 2: Sketch illustrating principles

Woodland setting to rural edge residential housing: Plockton Burnside

Two- and three-storey buildings addressing open space/entrance - Allterton Bywater

Low density detached housing that creates good routes and small public spaces. Kilmeena Village, Ireland

Central parkland within residential area - Forth Quarter park



Mature woodland as valuable public facility Centre Parcs

5.11.3 Character area 3

Key design principles and characteristics:

- Retain and enhance tree avenue along Hopetoun Grange;
- Provide distinctive frontage to A96(T) in form of high density apartments and terraced housing;
- Largely rectilinear grid form of development driven by existing field boundaries and street connections running parallel to Forrit Brae;
- Connect through from new development at Hopetcroft;
- Integrate mixed use areas including local retail, commercial and community uses;
- Retained housing at Christie Grange sensitively considered as part of layout;
- New park as extension of Hopetoun Grange;
- Housing to front onto open space;
- Forrit Brae structural planting retained and extended along street;
- Range of housing types and densities;
- Existing woodland contains development blocks to south-west.

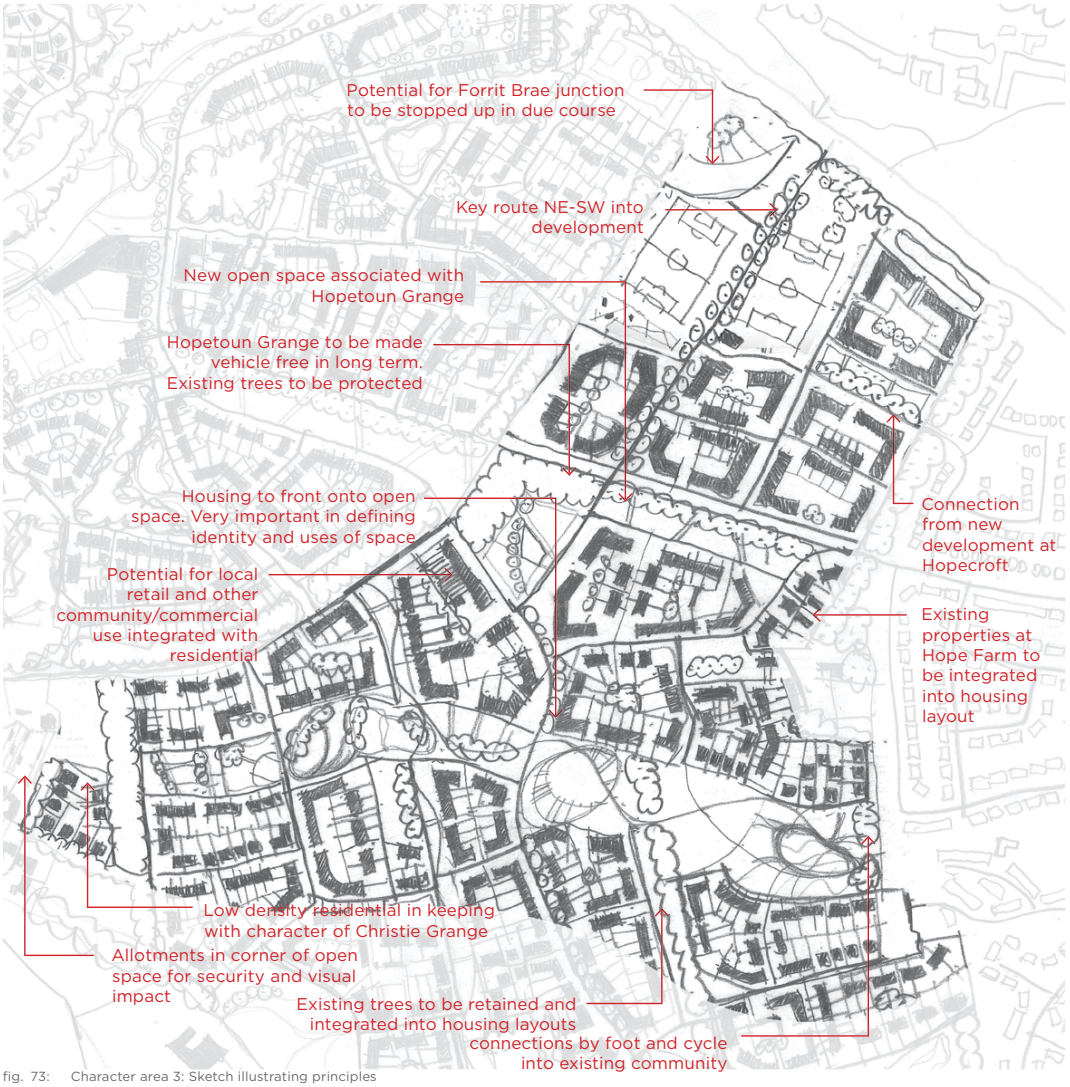


fig. 73: Character area 3: Sketch illustrating principles

Setback and avenue tree planting on residential strees. Letchworth Garden City

Three-storey terraced housing providing regular but visually interesting street scape. Amsterdam

Importance of visual coherence single-sided street frontages onto open space - Stonehaven Harbour.

5.11.4 Character area 4

Key design principles and characteristics:

- Character of Kepplehills Road to change from 'road' to 'street' with continuous frontages and building deflections of traffic;
- Sections of Kepplehills Road to become vehicle-free to ensure east-west 'rat-running' route is convoluted and not attractive for short cuts;
- Key corner buildings to be provided to mark new junctions from Kepplehills Road providing access north and south;
- Open space to be protected around hill on which Bucksburn Care Home sits;
- Newhills Parish Church to drive alignment of open space and street layout;
- Residential uses to define and front onto east-west linear park;
- Range of recreational and community uses integrated into park;
- Character should be derived from existing landscape features such as exiting tree blocks and topography;

fig. 74: Character area 4: Sketch illustrating principles

Single-sided streets fronting onto neighbourhood open space highlighting importance of considered and coherent approach - Upton.

Variety in building height and setback along residential streets - Harlow

Shared surfaces with consideration given to car parking requirements.

5.11.5 Character area 5

Key design principles and characteristics:

- Mix of residential densities from medium to low density;
- Housing to define and front onto linear open space;
- Primary school site adajcent to open space;
- Careful consideration reqiured for western and southern edge;

fig. 75: Character area 5: Sketch illustrating principles

Primary school well integrated into open space with natural materials - Peebles Primary School.

Rural edge housing - Highland Housing Fair

Potential for simple variety in built form and roof profiles - Highland Housing Fair

6. phasing and delivery

6.1 Phasing strategy

6.1.1 Anticipated completions

A matrix of anticipated housing completions has been agreed which sets out the various rates of construction expected by the three landowners/promoters. This is indicative at this stage and should be viewed as a guide to overall completion rates. In reality the rate of growth at Newhills will be determined by the market. The overall development figures do not match the ALDP allocation because constraints on OP20 prevent the development of the full allocation.

Completions for affordable units are dependent upon subsequent agreement with ACC and RSLs on delivery options and grant funding. Precise affordable numbers may vary according to delivery options involving tenure splits and/or commuted sums to aid completion of affordable units.

The completions table below is based on the following assumptions:

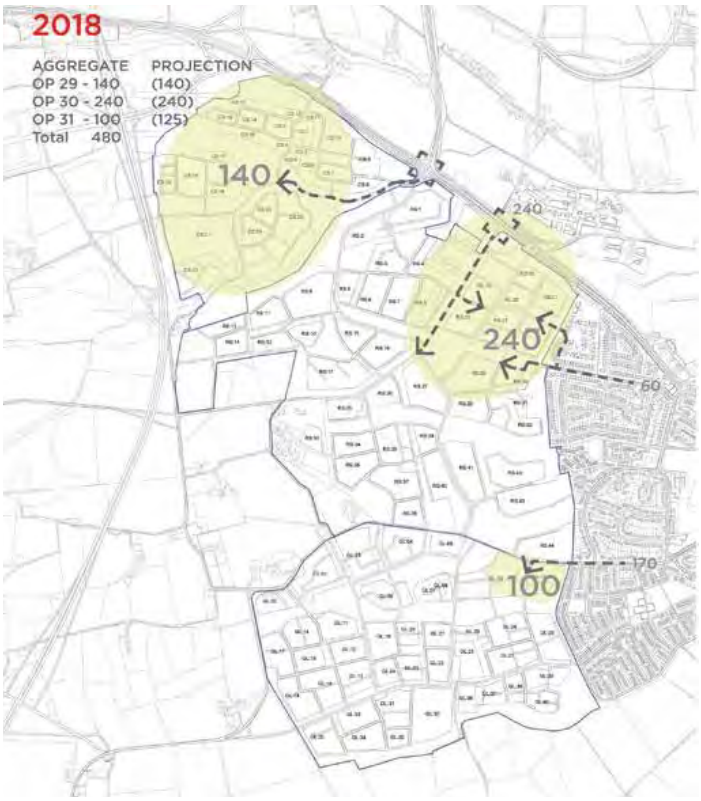
- Site Start: March 2015
- 1st house construction starts: May 2015
- 1st house complete/occupied: December 2015

Anticipated completions

		OP20 Craibstone South		OP21 Rowett South		OP22 Greenferns Landward		Aggregate - all sites		Totals
		Private	Affordable	Private	Affordable	Private	Affordable	Private	Affordable	All
ALDP 2007-2016	Annual completions	10	0	20	0	0	0	30	0	
	March 2016 (aggregate)	10	0	20	0	0	0	30	0	30
ALDP 2017-2023	Annual completions	40	0	85	0	50	0	175	0	
	March 2017 (aggregate)	50	0	105	0	50	0	205	0	205
	Annual completions	60	30	135	0	75	0	270	30	
	March 2018 (aggregate)	110	30	240	0	125	0	475	30	505
	Annual completions	60	0	135	54	75	100	270	154	
	March 2019 (aggregate)	170	30	375	54	200	100	745	184	929
	Annual completions	60	40	135	0	75	60	270	100	
	March 2020 (aggregate)	230	70	510	54	275	160	1015	284	1299
	Annual completions	60	0	135	108	75	60	270	168	
	March 2021 (aggregate)	290	70	645	162	350	220	1285	452	1737
	Annual completions	60	40	135	0	100	55	295	95	
	March 2022 (aggregate)	350	110	780	162	450	275	1580	547	2127
	Annual completions	60	0	135	108	100	0	295	108	
	March 2023 (aggregate)	410	110	915	270	550	275	1875	655	2530
ALDP 2024-2030	Annual completions	40	40	135	0	100	0	275	40	
	March 2024 (aggregate)	450	150	1050	270	650	275	2150	695	2845
	Annual completions	0	0	135	108	150	50	285	158	
	March 2025 (aggregate)	450	150	1185	378	800	325	2435	853	3288
	Annual completions	0	0	135	0	150	50	285	50	
	March 2026 (aggregate)	450	150	1320	378	950	375	2720	903	3623
	Annual completions	0	0	135	107	175	0	310	107	
	March 2027 (aggregate)	450	150	1455	485	1125	375	3030	1010	4040
		600*		1940		1500				

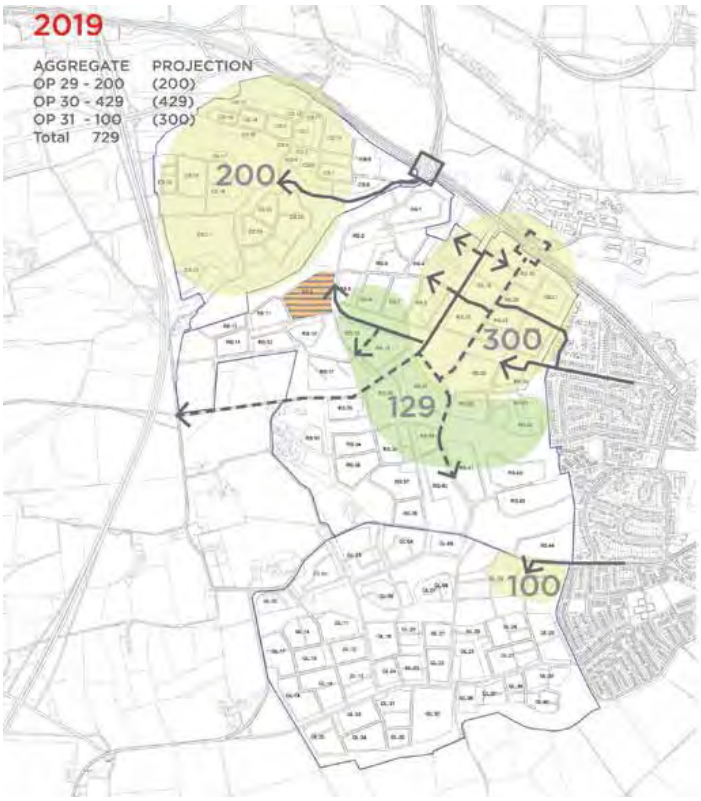
* excludes student housing

The phasing diagrams on the following pages illustrate the desired direction of growth at this stage. They are not intended to be a rigid guide. Open space will be delivered in parallel with adjacent development. The relevant masterplan for each site will set out more detail relating to the phasing for housing, sport and open space. Sports facilities related to Primary school provision will be delivered in parallel with the respective schools.



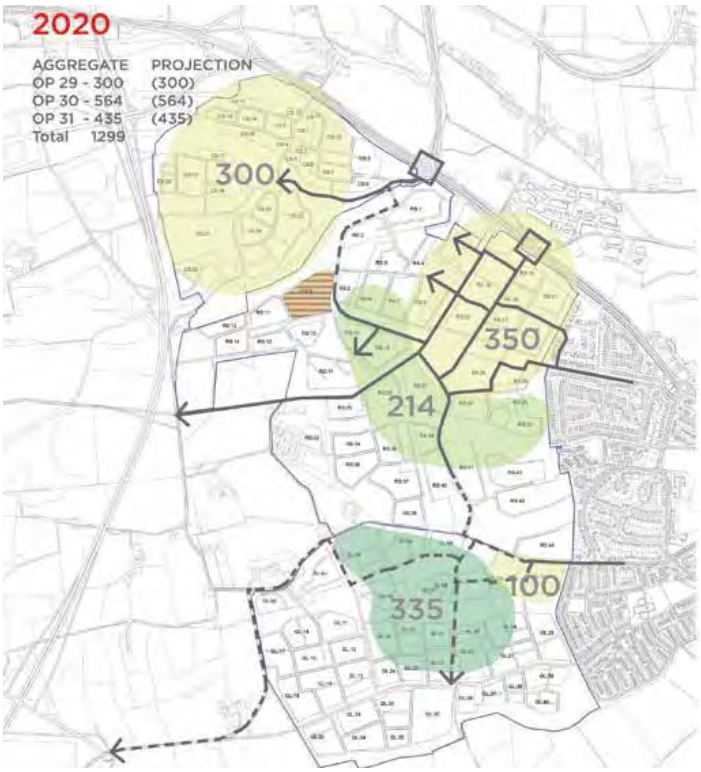
ASSUMPTIONS

- Completions to the north are as per landowner/developer projections and fall within junction capacity in 2018.
- Completions to the south are limited by education capacity, which do not meet landowner/developer targets and do not utilise road capacity.



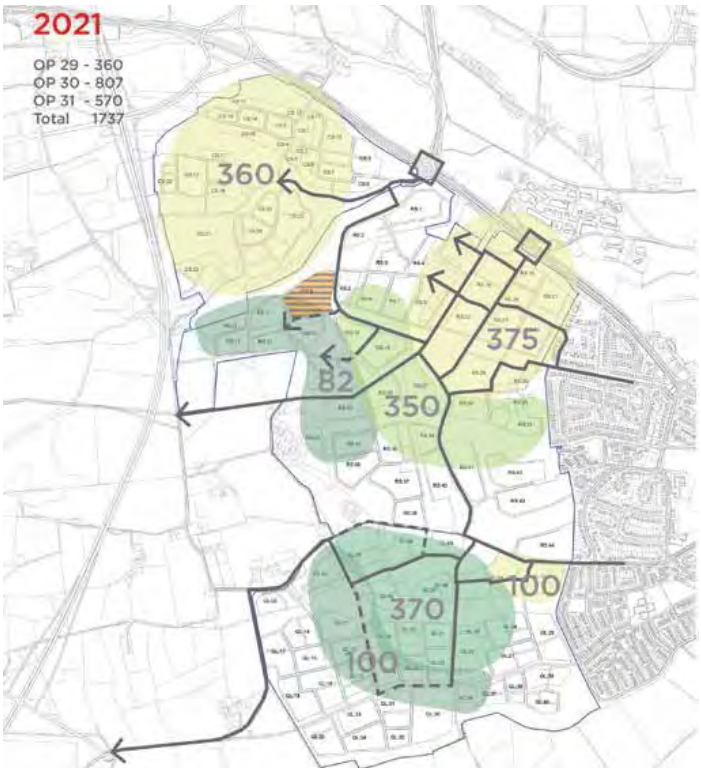
ASSUMPTIONS

- New A96 junction implemented releasing capacity to the north of the site, along with improvement of the rest of Forrit Brae and some other offsite mitigation measures;
- Completion numbers are met to the north;
- First primary school likely to be required, subject to discussion with ACC; and
- Completions to the south are limited due to education provision with a 200 unit shortfall against projection.



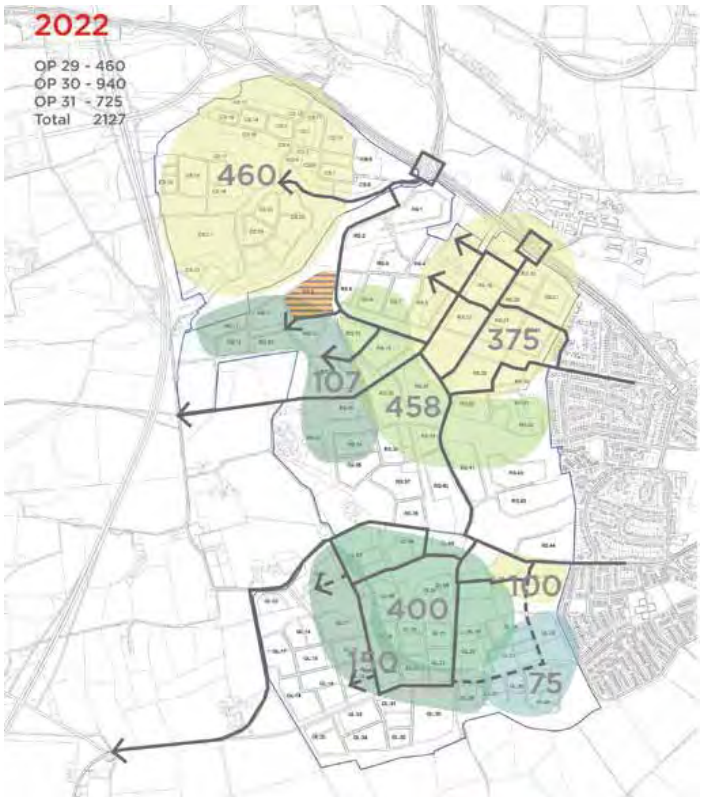
ASSUMPTIONS

- A street connecting Rowett South and Craibstone must be delivered to facilitate movement to a variety of community services including primary school, open space, healthcare facilities and public transport
- Completion numbers to the north continue as planned.
- Greenferns Landward shortfall of 335 is taken up and has necessitated completion of link from Rowett South into Landward.
- Kepplehills Road upgraded and re-prioritised.
- It is assumed that children from Greenferns Landward will attend new primary to the north initially.



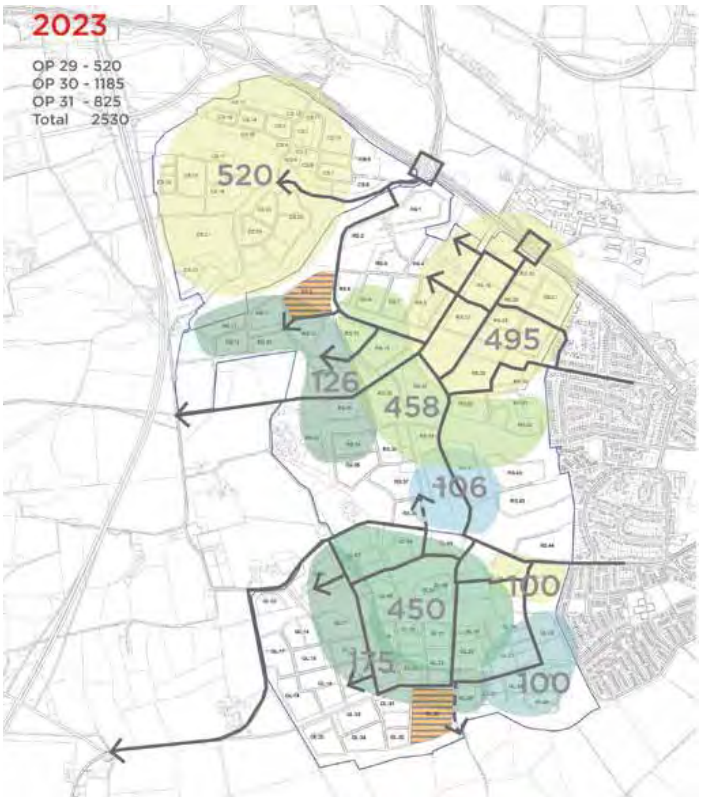
ASSUMPTIONS

- Growth on all sites progresses as projected.



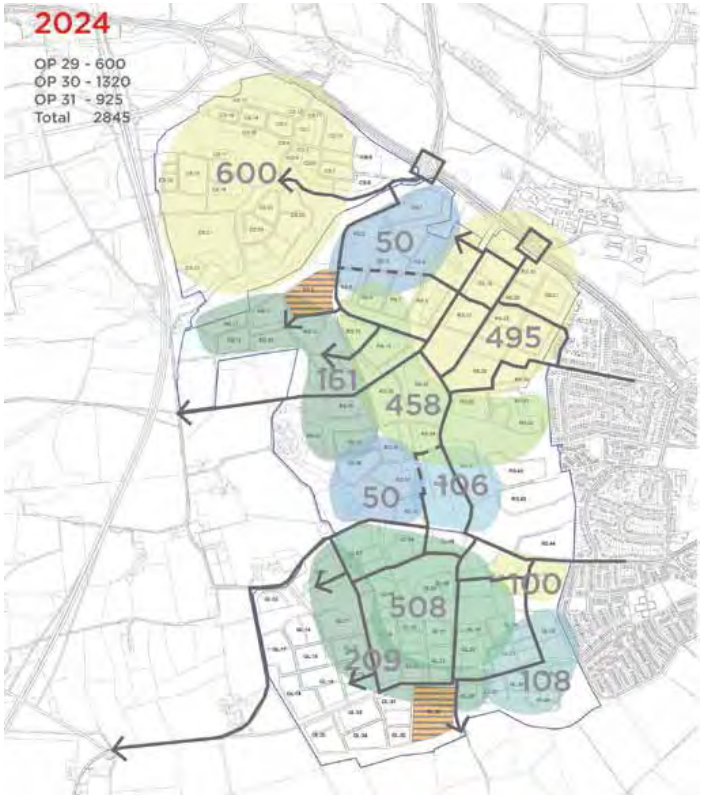
ASSUMPTIONS

- Growth on all sites progresses as projected.



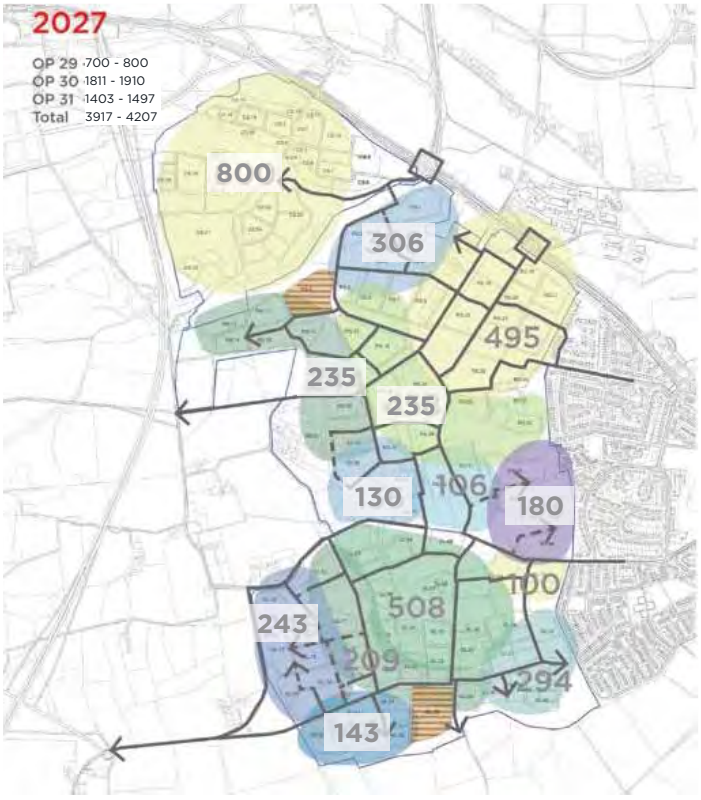
ASSUMPTIONS

- Second Primary required as unit numbers exceed 2,200 which equates to a conservative single school capacity of 440 pupils. Re-zoning of school catchments to occur.



ASSUMPTIONS

- OP20 Craibstone South complete
- Growth on all sites progresses as projected.



- General direction of growth in westerly and south-westerly direction

6.2 Delivery

Information on Infrastructure requirements taken from Aberdeen Local Development Plan Action Programme Working Document, v2 published 01/02/2013. Subsequent updates to this version of the Action Programme are available on the ACC website and should be refered to in determining planning appications.

It is assumed that the scope and extent of many of the Infrastructure Requirements needed for the Newhills Expansion Area will be developed as respective applications for Planning Permission in Principle evolve and are concluded through negotiations with Aberdeen City Council regarding Section 75 agreements. The table below sets out the current requirements taken from the ALDP Action Programme. The table aims to summarise these requirements, describing where possible, what, how and when requirements will be delivered and from which different parties collaboration will be necessary to ensure the successful delivery of these infrastructure requirements. A formula for working out costs between the three parties is set out for joint infrastructure items. The landowner parties will engage with the Planning Gain Team at the earliest opportunity in order to determine the appropriate Developer Contributions.

Commercial Agreement: The maximum financial extent of any such commercial agreement will be limited to the cost of delivering the works in question and the reasonable design, preparatory and legal costs of the land-provider in relation to those works. No party will seek to ransom another by means of demanding a financial premium over and above this. Any land required for shared infrastructure will be provided at nil land cost. Infrastructure is defined as roads, footways, services, drainage etc... and will specifically exclude shared facilities such as schools, medical centres for which a separate mechanism will be agreed. No party will seek to cause undue delay to another by refusing to engage on such matters, refusing access or failing to agree reasonable designs or modifications to existing infrastructure.

Category	ALDP Action Programme item	Understanding of implication and requirements for Development Framework	How to deliver	When to be delivered	Parties involved	Formula for calculating split of joint infrastructure costs between 3 parties
Walking & Cycling	Strategic East West formal route through the site along the A96 forming a continuation of the cycle route.	Route to be identified within Development Framework boundaries to connect to existing alignment.	ACC Transport Strategy identified as responsible for delivery. Contributions from developers required.	In parallel with adjacent, on-site, development.	ACC. Developers.	Costs borne by landowner parties over which the upgrade is required. Where infrastructure is to be provided on a site ahead of that site's specific requirement for it, in order to facilitate development on neighbouring sites, this will be by way of commercial agreement between landowners.
	Strategic North South formal route through site connecting A96 cycle route to Kingswells path network (can utilise B Roads if minimal traffic) – should possibly connect via AWPR junction and link in East West to Bucksburn.	Route to be identified within Development Framework boundaries to connect to existing alignment.	ACC Transport Strategy identified as responsible for delivery. Contributions from developers required.	In parallel with adjacent, on-site, development.	ACC. Developers.	Costs borne by landowner parties over which the upgrade is required. Where infrastructure is to be provided on a site ahead of that site's specific requirement for it, in order to facilitate development on neighbouring sites, this will be by way of commercial agreement between landowners.
	New and upgraded links through site connecting to strategic routes and connection to site OP24.	Development Framework to identify connections to existing strategic routes on site boundaries.	On site requirements to be delivered by developers (unless otherwise identified by the respective Transport Assessments).	In parallel with adjacent, on-site, development.	ACC. Developers.	Costs borne by landowner parties over which the upgrade is required. Where infrastructure is to be provided on a site ahead of that site's specific requirement for it, in order to facilitate development on neighbouring sites, this will be by way of commercial agreement between landowners.
	Contribution towards provision of new bridge across the River Don as identified in the River Don Corridor Framework.	Contributions from developers required.	ACC Transport Strategy identified as responsible for delivery. Contributions from developers required.	As per ACC programme for works.	ACC. Developers.	Pro-rata contribution based upon housing numbers.
	Contribution towards provision of cycle route from Blackburn to Aberdeen along A96 with connections into Dyce.	Contributions from developers required.	ACC Transport Strategy identified as responsible for delivery. Contributions from developers required.	As per ACC programme for works.	ACC. Developers.	Pro-rata contribution based upon housing numbers.

Category	ALDP Action Programme item	Understanding of implication and requirements for Development Framework	How to deliver	When to be delivered	Parties involved	Formula for calculating split of joint infrastructure costs between 3 parties
Public Transport	Frequent public transport services to serve the whole masterplan area which may include extensions to existing services.	Strategic discussions with bus operators to determine any particular routes which should be integrated into Development Framework. Development Framework identifies potential routes and locations for bus stops which would ensure all development blocks fall within 400m of bus route.	The respective developers for the sites will pursue the delivery of public transport provision; further detail will be provided in the relevant masterplans. Public Transport Unit identified as responsible for delivery.	Linked to the phasing of the development.	ACC. Developers. Bus operators	Pro-rata contribution based upon housing numbers.
	Road connection from existing roundabout at A96 / Dyce Drive through masterplan area and to Kepplehills Road. Note: It has been determined through the Development Framework process that this may not be the preferred key link to the A96	Development Framework to identify route through OP21 to connect A96(T)/Dyce Drive with Kepplehills Road.	Road infrastructure to be delivered by landowner parties over which the upgrade is required, unless otherwise identified by the subsequent Transport Assessments or required by others out of sequence.	As identified by the subsequent Transport Assessments. Generally linked to the phasing of the development unless required out of sequence.	ACC. Developers	Costs borne by landowner parties over which the upgrade is required. Where infrastructure is to be provided on a site ahead of that site's specific requirement for it, in order to facilitate development on neighbouring sites, this will be by way of commercial agreement between landowners.
	Local road improvements	Following the Strategic review the only currently identified location for potential road improvements are at Forrit Brae, and the north south link known as the C89c to the west of the site and Kepplehills Road. Further detailed analysis will resolve any additional impact on other sections of the existing road network.	Road infrastructure to be delivered by landowner parties over which the upgrade is required, unless otherwise identified by the subsequent Transport Assessments or required by others out of sequence. Detail of other road improvements to be advised by respective Transport Assessments.	As identified by the subsequent Transport Assessments. Generally linked to the phasing of the development unless required out of sequence.	ACC. Developers	Costs borne by landowner parties over which the upgrade is required. Where infrastructure is to be provided on a site ahead of that site's specific requirement for it, in order to facilitate development on neighbouring sites, this will be by way of commercial agreement between landowners.
	Shared Infrastructure	Currently the extent of known shared infrastructure is limited, the only clear items that can be identified at this strategic stage are the link between Craibstone heading south and Rowett South heading north and the link from Greenferns Landward north. These links are required to provide access to the proposed new school and allow bus penetration throughout the whole of the site. Further shared infrastructure will depend on future detailed impact analysis of the proposals.				The impact of 4,440 homes will be established and the necessary mitigation quantified. Each Landowner will accept responsibility for their proportionate share of this cost, based on housing numbers. Beyond this, each site will progress to TA at which point any site-specific factors (such as replacement of network trips) that may alter that site's impact will be agreed with ACC Roads, however this will have no impact on the contributions required from the other Landowners. Delivery of contributions will be in line with housing completions.

Category	ALDP Action Programme item	Understanding of implication and requirements for Development Framework	How to deliver	When to be delivered	Parties involved	Formula for calculating split of joint infrastructure costs between 3 parties
Water	OP26/OP20 Craibstone Water – Invercannie and Mannofield WTW. There is currently sufficient capacity at Invercannie and Mannofield WTW. An off-site mains extension will be required to connect development to existing water infrastructure. Waste – Persley PFI. There is currently no existing infrastructure within this area. A new trunk sewer may be required which would go all the way into Persley PFI. A Drainage Impact Assessment will be required to identify the impact on sewers downstream. Any masterplan should take account of the existing water features within the site, the pressures which apply to these features and should direct developers to look for opportunities to protect and improve the water environment.	The full list of requirements will be identified following completion of a Drainage Impact Assessment and a Scottish Water Development Impact Assessment which the landowner will commission.	The onsite requirements will be delivered by Landowners/ developers. Off-site requirements will be delivered by Scottish Water with possible contributions from Landowners/ developers.	The phasing of the requirements will be identified by the Drainage Impact Assessment and Scottish Water Development Impact Assessment and inked to the phasing of the development.	Landowners/ developers, ACC, Scottish Water and the Scottish Environment Protection Agency (SEPA).	Impact met by Craibstone landowner
Water	OP21 Rowett South Water – Invercannie and Mannofield WTW. An off-site mains extension will be required. Due to height levels, this site may need to have water pumped. A Water Impact Assessment will be required to determine whether network upgrades are necessary. Waste –Persley PFI. There is currently no existing sewer infrastructure within this area. A Drainage Impact Assessment will be required to identify the impact on sewers downstream. Any masterplan should take account of the existing water features within the site, the pressures which apply to these features and should direct developers to look for opportunities to protect and improve the water environment.	The full list of requirements will be identified following completion of a Drainage Impact Assessment and a Scottish Water Development Impact Assessment which the landowner will commission.	Landowners/ developers have engaged with Scottish Water Horizons in relation to agreeing the installation of a new water supply main across Rowett South that will provide the water supply and have also been in discussion with them regarding the installation of a strategic waste water solution on Rowett North that would also provide capacity for the full 1,940 homes worth of Rowett South. Subject to further negotiation, the WIA and DIA may be undertaken by Scottish Water Horizons. These studies will advise as to delivery mechanism.	The phasing of the requirements will be identified by the Drainage Impact Assessment and Scottish Water Development Impact Assessment and inked to the phasing of the development.	Landowners/ developers, ACC, Scottish Water Horizons and the Scottish Environment Protection Agency (SEPA).	Impact met by Rowett South landowner/ Scottish Water Horizons.

Category	ALDP Action Programme item	Understanding of implication and requirements for Development Framework	How to deliver	When to be delivered	Parties involved	Formula for calculating split of joint infrastructure costs between 3 parties
Water	OP22 Greenferns Landward Water – Invercannie and Mannofield WTW. There is currently sufficient capacity at Invercannie and Mannofield WTW. A Water Impact Assessment will be required to establish the best option for supplying this development. Network upgrades may also be required. Waste – both Nigg PFI and Persley PFI will serve this area. There is no existing infrastructure within this area. A Drainage Impact Assessment will be required to identify the impact on sewers downstream. While part of Site OP22 is likely to be treated by Persley PFI, the southern part will be treated at Nigg PFI.	The full list of requirements will be identified following completion of a Drainage Impact Assessment and a Scottish Water Development Impact Assessment which the landowner will commission.	Infrastructure will be delivered by the Developer/ Landowner in accordance with Scottish Waters Guidance.	The phasing of the requirements will be identified by the Drainage Impact Assessment and Scottish Water Development Impact Assessment and inked to the phasing of the development.	Landowners/ developers, ACC, Scottish Water and the Scottish Environment Protection Agency (SEPA).	Impact met by Greenferns Landward landowner
Water	All proposed development must be drained by Sustainable Drainage Systems (SUDS) designed in accordance with the CIRIA SUDS Manual (C697) and developers must submit a Drainage Assessment/Drainage Strategy for any development proposals coming forward in line with PAN 61, Policy NE6 of the Local Development Plan and Supplementary Guidance on Flooding, Drainage and Water Quality. Developers should look for opportunities to protect and improve the water environment by taking account of the water features within and close to their sites.	The full list of requirements will be identified within the respective Drainage Strategies for the individual sites within the Newhills Expansion Area although the Development Framework indicates high level space requirements for individual opportunity sites. The Drainage Strategies will be prepared to be submitted as part of the application for Planning Permission in Principle.	The requirements will be delivered by Landowners/ developers unless otherwise identified by the Drainage Strategy.	The phasing of the requirements will be identified by the Drainage Strategy and linked to the phasing of the development.	Landowners/ developers, Aberdeen City Council, Scottish Water and the Scottish Environment Protection Agency (SEPA).	Not a split cost. Each site shall have own technical solution.
Education	It has been determined through Development Framework process that "1 New Secondary School" as set out in ALDP Action Programme is not required.	Development Framework to set out strategy for Secondary School provision. Education Study on the potential for expansion of Bucksburn Academy is required to confirm the long term strategy.	The school will be delivered by ACC with the assistance of Planning Gain contributions from Landowners/ developers.	The phasing of the requirements will be identified by the Education Study and linked to the phasing of the development.	ACC, Landowners.	Pro-rata contribution based upon housing numbers. Where land is not purchased from Land Owner, value of land contributed to be recognised in split of total contributions between sites.
	It has been determined through Development Framework process that "3 New Primary Schools" as set out in the ALDP Action Programme are not required. Two sites are required and some rezoning.	Development Framework to set out strategy for Primary School provision. Two sites for Primary Schools have been identified.	The school will be delivered by ACC with the assistance of Planning Gain contributions from Landowners/ developers.	The phasing of requirements is set out in the Development sequence.	ACC, Landowners	Pro-rata contribution based upon housing numbers. Where land is not purchased from Land Owner, value of land contributed to be recognised in split of total contributions between sites.

Category	ALDP Action Programme item	Understanding of implication and requirements for Development Framework	How to deliver	When to be delivered	Parties involved	Formula for calculating split of joint infrastructure costs between 3 parties
Health	The provision of a new Health Centre (including land) to accommodate a 13 GP Unit for 6 existing GP's with 7 extra GP's to support the developments.	The Development Framework has identified (following land consultation with NHS Grampian) land within OP21 Rowett South identify land which would be appropriate for a new Health Centre. Planning Gain Contributions and Land provided by developers.	NHS Grampian to advise of requirements during subsequent masterplan process. Planning Gain to negotiate Developer Contributions. NHS Grampian to deliver.	Appropriate phasing Phasing to be agreed with NHS Grampian through masterplan process. [Action Programme suggests 2014 for "Commission of new Health Centre. The correct timing for provision would be early in the development with land made availability for the initial replacement of one of the Bucksburn facilities and a second phase supported by contribution as the development is nearing completion. (staged approach 2014 and 2020)."]	NHS Grampian, ACC Planning Gain, Landowners/ Developers.	Pro-rata contribution based upon housing numbers. Where land is not purchased from Land Owner, value of land contributed to be recognised in split of total contributions between sites.
	New 6 Chair Dental Surgery. This facility could however be included as part of the required new Health Centre for the area.	Development Framework to identify land, in consultation with NHS Grampian, which would be appropriate for a new Dental Surgery. Planning Gain Contributions provided by developers.	NHS Grampian to advise of requirements during subsequent masterplan process. Planning Gain to negotiate Developer Contributions. NHS Grampian to deliver.	Phasing to be agreed with NHS Grampian through masterplan process. [Action Programme suggests 2017 for "Commission of new dental surgery. The correct timing for provision would be as the First set of Units is built. This should be supported by contributions to be provided within the first phase of Health Centre provision in 2014."]	Planning Gain, Landowners/ Developers	Pro-rata contribution based upon housing numbers. Where land is not purchased from Land Owner, value of land contributed to be recognised in split of total contributions between sites.
	3 new Community Pharmacy in the Bucksburn area. (Note – phasing narrative refers to 4 community pharmacies – ACC to confirm)	Development Framework to identify mixed use areas which might accommodate Community Pharmacy. Subsequent Masterplan to identify potential locations. Planning Gain Contributions provided by developers.	NHS Grampian to advise of requirements during subsequent masterplan process. Planning Gain to negotiate Developer Contributions. NHS Grampian to deliver.	Phasing to be agreed with NHS Grampian through masterplan process. [Action Programme suggests 2015 for "Commission of new Pharmacy. The correct timing for provision would be 4 facilities staged approach starting with 1 as the first set of Units are built in 2015, the other 3 developed throughout the house building programme."]	NHS Grampian, ACC Planning Gain, Developers.	Pro-rata contribution based upon housing numbers. Where land is not purchased from Land Owner, value of land contributed to be recognised in split of total contributions between sites.

Category	ALDP Action Programme item	Understanding of implication and requirements for Development Framework	How to deliver	When to be delivered	Parties involved	Formula for calculating split of joint infrastructure costs between 3 parties
Gypsy / Traveller Site Requirements	Newhills Expansion (Craibstone, Rowett South and Greenferns Landward) is required to make contributions towards the provision of a Gypsy / Traveller site. The contribution will be for small sites of six pitches, with a net area of approximately 0.5ha.	The Development Framework has identified two options for a Gypsy / Traveller site of approximately 0.5 ha which takes into account the ACC Supplementary Guidance on such sites.	ACC to consider options against established Council criteria. Through continued discussion and negotiation between ACC and landowners, a preferred option is to be agreed. Delivery will ultimately be by ACC. Developers to make land contribution.	In parallel with adjacent development blocks so as to prevent out of sequence development.	ACC. Developers.	An agreement on the chosen site and equalisation mechanism to be utilised to calculate the respective contributions and compensation for accommodating the site must be reached between the developers prior to consent being granted for any of the subsequent PPIP applications. This mechanism will be agreed through the Section 75 negotiations.
Affordable Housing	As per ALDP Policy	Development Framework to confirm intention to deliver 25% affordable homes, on site, throughout the site area. Indication given for potential locations of affordable housing (see 5.6). Phasing indicated through completions table which is based on ALDP phasing.	Delivery to be agreed following discussion with ACC's Housing Strategy and Performance Service, Planning Gain and affordable housing providers at subsequent masterplan stage.	The phasing of the requirements will be discussed with ACC and affordable housing providers and linked to the phasing of the development, taking into account other infrastructure requirements.	ACC, Planning Gain, affordable housing providers and Developers.	Not a split cost.

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