5. The Development Framework

5.1 Introduction + Purpose

The vision for Grandhome stems from the principles of place-making, which promote the design of walkable neighbourhoods, offering a range of house types, as well as community facilities, shops and jobs. This approach seeks to lessen car dependency and promote a sense of wellbeing and community. The purpose of this chapter is to explain how those principles have been applied in the Development Framework for Grandhome.

The Development Framework at right illustrates Grandhome as a completely built community, comprising nearly 6,500-7,000 houses within seven neighbourhoods and 5ha of employment land. These neighbourhoods are connected by a green space network, including parks, squares, sports pitches and other recreational green spaces. In addition, the neighbourhoods will be supported by a range of commercial and community uses that will serve their local population. The design philosophy behind this masterplan, and the aspirations for its delivery, are detailed in this Framework.

This Framework considers the important role played by a small site on the south side of the Parkway, also owned by the Trust. Whilst this site falls outside the OP9 designation, its vital role in creating a pedestrian and cycle access linking the Danestone and Grandhome communities means this Framework considers the site in its broader context.

Figure 5.1: The Grandhome masterplan

5.2 Transect-Based Design

The Grandhome masterplan is transect-based, meaning that the plan's structure is generated by a tool called the transect. The transect measures the character of an environment, from rural to urban. Grandhome is designed to include many types of environments along the transect, ranging from its urban high street hub through to the lower-density residential neighbourhoods on the settlement edge.

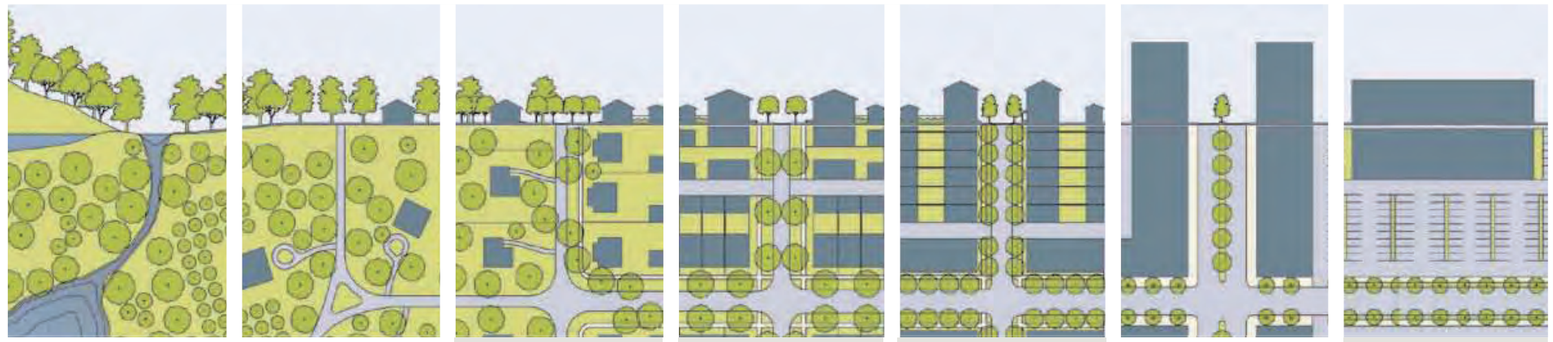
Scottish planner and biologist Patrick Geddes developed the concept of the transect, building from the work of German naturalist Alexander von Humboldt. Several decades later, Scottish landscape architect Ian McHarg further developed the methodology in his most well-known book, 'Design with Nature'. Today, urban designers, including Grandhome designers from Duany Plater-Zyberk, use the transect to analyse the range of human habitats and design settlements which are diverse in building type and neighbourhood character.

The transect can be measured in six zones, which are distributed across a masterplan. These zones include T1 (Natural Zone), T2 (Rural Zone), T3 (Sub-Urban Zone), T4 (General Urban Zone), T5 (Urban Centre) and T6 (Urban Core). Densities, building heights, building setbacks and other issues then correlate with each zone.

Grandhome includes three of the six transect zones: T3, T4 and T5. Each neighbourhood features a range of zones, to reflect the variety of urban environments and housing types within the settlement. T5, however, features more prominently in the higher-density town centre and the neighbourhood centres. Grandhome also includes a zone called 'Special District' – a specialised area that does not comply with the typical rules of the urban-rural transect. In Grandhome, the business park is a Special District.

The requirements for these zones – such as densities, thoroughfare scales, building setbacks and building footprints – are calibrated locally. In each case, the transect should reflect a locally appropriate range of densities and neighbourhood characters. For Grandhome, many of the proposals reflect the character and urban proportions of well-known Aberdeen neighbourhoods, including Old Aberdeen and Rubislaw Den.

Accordingly, the transect zones, and the precedents that inspired them, can be introduced as follows:



T1 Natural Zone	T2 Rural Zone	T3 Sub-Urban Zone	T4 General Urban Zone	T5 Urban Centre Zone	T6 Urban Core Zone	SD Special District
General Character Natural landscape approximating to pristine wilderness with some agricultural use including lands unsuitable for settlement due to topography, hydrology or vegetation.	**General Character** Primarily agricultural with woodland & wetland and scattered buildings. Typical structures are farmhouses, agricultural buildings, cabins, and villas on large estates	**General Character** Lawns, and landscaped gardens surrounding detached single-family houses; pedestrians occasionally	**General Character** Mix of Houses, Terrace Houses & small Apartment buildings, with scattered Commercial activity; balance between landscape and buildings; presence of pedestrians	**General Character** Shops mixed with Terrace Houses, larger Apartment Villas, Offices, workplace, and Civic buildings; predominantly attached buildings; trees within the public right-of-way; substantial pedestrian activity	**General Character** Medium to High-Density Mixed Use buildings, entertainment, Civic and cultural uses. Attached buildings forming a continuous street wall; trees within the public right-of-way; highest pedestrian and public transport activity	**General Character** District may be specialised and not include the full range of activities of a neighbourhood. They may also accommodate uses that cannot be incorporated into a neighbourhood structure such as manufacturing, industry and office parks
Building Placement Not applicable	**Building Placement** Variable Setbacks	**Building Placement** Variable front and sidegarden Setbacks	**Building Placement** Shallow to medium front and sidegarden Setbacks	**Building Placement** Shallow Setbacks or none; buildings oriented to street defining a street wall	**Building Placement** Shallow Setbacks or none; buildings oriented to street, defining a street wall	**Building Placement** Shallow Setbacks or none; buildings oriented to street, defining a street wall
Typical Height Not applicable	**Typical Height** 1- to 2-Storey	**Typical Height** 1- to 2-Storey	**Typical Height** 1- to 2-Storey with a few 3-storey mixed use buildings	**Typical Height** 2- to 4-Storey	**Typical Height** 3-plus storey with a few shorter buildings	**Typical Height** 2- to 4-Storey

Figure 5.2: An introduction to the transect zones, with those in Grandhome highlighted (T3, T4, T5 and SD)

T1 (Natural Zone):
The first transect zone is for natural settings such as wild areas, countryside landscapes and woodlands. The Grandhome masterplan does include an extensive network of green spaces including parks and woodlands, but these are not T1 as such. Rather, they must relate to the urban character of the surrounding development, and so are incorporated into the adjoining, more urban, T zones.

The Green Belt to the north and the riverfront area to the west are both authentic T1 zones and are well-connected to the green network within the site. Residents will be able to readily take advantage of these natural landscapes for visual enjoyment and recreational uses.

T2 (Rural Zone):
T2 features low-density development, seen in rural landscapes dotted with farmsteads, or on the quiet edges of traditional towns. Development of this type is plentiful near the Grandhome site, in Aberdeenshire and further afield. However, there is no T2 development within the boundaries of the Grandhome site, given the need to achieve a higher density to sustain mixed uses in a neighbourhood framework. To provide residents with access to T2, the masterplan is designed to preserve long views of the nearby countryside, with views available from several public spaces and prominent civic complexes such as the school.

T3 (Sub-Urban Zone):
T3 features lower density residential development, including occasional retail, office and civic uses. Detached and semi-detached houses are typically most prominent, often set back from the street with private gardens. Rubislaw Den offers an example of T3 within Aberdeen City, with its larger houses on wide, elegant streets. T3 will also feature prominently in Grandhome, particularly on the edge of neighbourhoods.

T4 (General Urban Zone):
T4 features an urban mix of residential, retail and office development, often featuring corner shops, retail and slightly higher density development such as live/work units. T4 features in Grandhome, particularly in the areas adjacent to the retail hubs of the town and neighbourhood centres. Many of the T4 parts of Grandhome feature mixed-uses on corner sites. Roads in Aberdeen that inspired the proportions and housing mix of T4 include Fountainhall Road, Beaconsfield Place and Albert Terrace. These areas range in approximate density from 25 to 34 units to the hectare, with a mix of housing types including detached houses, terraces, semis and flats. Grandhome follows this precedent in its urban areas.

T5 (Urban Centre):
T5 is an urban centre: an active area featuring a medium to high-density concentration of retail and community uses, such as a high street serving an extended local area. Grandhome is T5 in its town centre and in the core of its neighbourhood centres. T5 often features live/work buildings as well as larger buildings of ground floor retail with flats or offices above. In line with this higher density development, public spaces can be substantial in size, including plazas, parks and squares. Grandhome's T5 follows local precedents noted at Rosemount Place and elsewhere.

T6 (Urban Core):
T6 is the urban core, the highest density transect zone, generally found in city centres. T6 typically includes blocks of flats, retail and high-density office buildings. There is no T6 in Grandhome, as this type of development is not well suited to the site's Bridge of Don location.

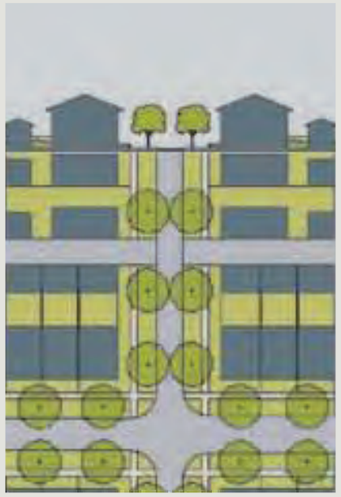
SD (Special Districts):
Special Districts are areas which do not follow the Transect Zone methodology: often, these areas are intended to serve particular purposes and thus may be dominated by one use, as opposed to balanced in a mixed-use context compatible with a rural-urban identity.
In Grandhome, the business district on the site's southeast tip is one Special District: this area is business dominated and designed to accommodate a corporate headquarters, as opposed to the residential-led, mixed-use development seen elsewhere across the settlement in T3, T4 and T5.

The Grandhome Transect

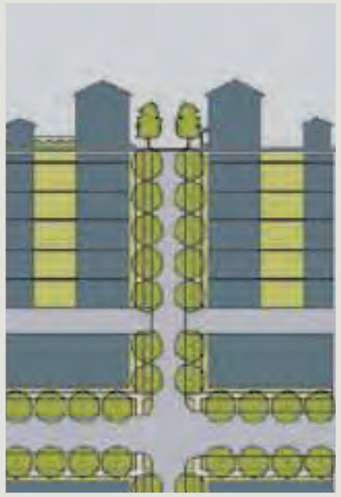
The design team sought to calibrate the transect system to a scale and character appropriate for the Grandhome site. The analyses above, and on the following pages, study urban environments within Old Aberdeen and other north Aberdeen neighbourhoods, aligning various conditions with the Grandhome transect.

Grandhome includes transect zones T3 (Sub-Urban), T4 (General Urban) and T5 (Urban Centre), which are the primary focus of these analyses. The drawings below show how these zones correlate with street design; the following pages also explore other elements of urbanism, such as public space design.

T3 Sub-Urban Zone



T4 General Urban Zone



T5 Urban Centre Zone

Figure 5.3: Transect planning can also be applied to street design. The analyses above consider different street environments in Aberdeen and align these with the transect zones. Similar urban and street proportions can then be used within Grandhome's transect-based system.

5.2.1 Contextual analysis

The Grandhome design team began the SSCI Charrette by studying mixed-use neighbourhoods in Aberdeen, including Old Aberdeen, Victoria Street, Rubislaw den North and Rosemount Place. Since then, the team has continued to return to these historic precedents, studying not only the architecture, but also the densities, setbacks and other components of urbanism.

The following studies indicate the type of lessons that the designers gleaned from studying these streets and urban spaces closely. Much of these standards may later be incorporated into transect analyses, to be used for a Design Code or Pattern Book.

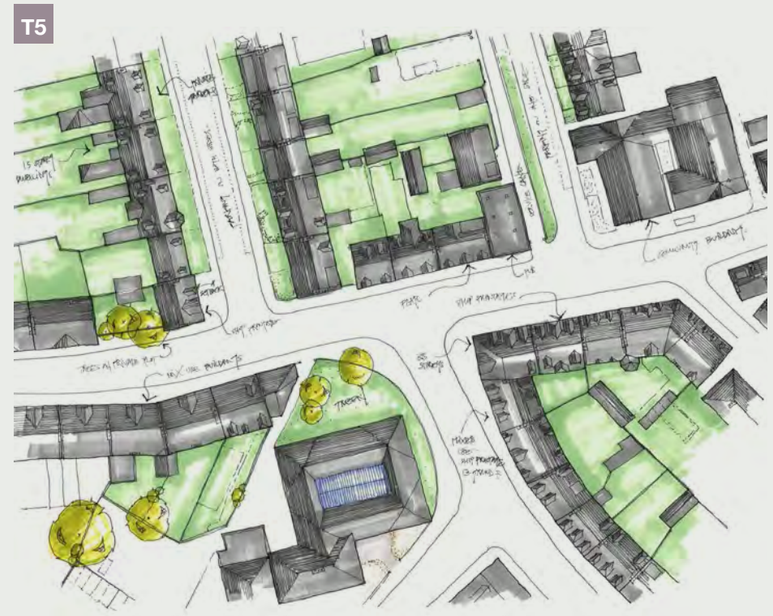
The studies are organised according to transect zone, as the transect methodology has driven the development of the masterplan. These are included as follows:

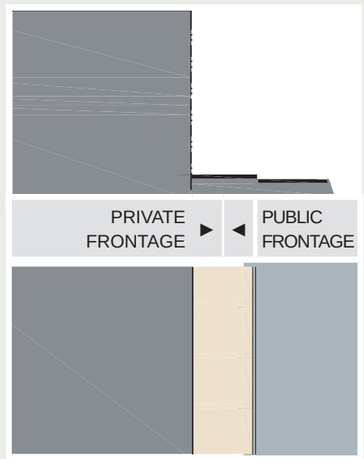
- T5 type
- T4 type
- T3 type
- Paths and lanes
- Mix of types
  - High street (T5/T4)
  - Don street (T4/T3)
  - Lane

Rosemount Place (T5 Type)

Rosemount Place offers a model for town centre and neighbourhood centre development in terms of density and sensitive incorporation of a mix of uses. It consists of higher density mixed use buildings that accommodate retail, offices, terrace houses and apartments. It has a tight network of streets with a spatial width that averages 14.5 metres; wide paths up to 3.5 metres and buildings up to 4 storeys set close to the paths.

Housing units vary in size and sit in roughly 50 units per hectare; this higher density is achieved at Grandhome in the main commercial area in Phase 2. The generic building types are very flexible and truly urban; they consist of a commercial ground floor topped by one or several storeys of dwellings or workspace. They sit right up against the path, with any parking located at the rear.





Public Frontage

Public Frontage Type	Commercial street
Spatial Width	14.5 m
Moving Lanes	1 lane each Way
Parking Lanes	1 Lane
Carriageway Width	9.25 m
Kerb Type	Raised
Kerb Radius	3.25 m
Median	None
Footway	2m - 3.25m
Planter Type	None
Planter Width	None
Planter Pattern	None
Tree Type	None

Private Frontage

Private Frontage Type	Shopfront
Building Height	up to 4 Storeys
Outbuilding Height	1 Storey
Floor above Grade	0m min.
Building Typical	Rear yard and terrace
Plot Width	11m - 15m
Plot Depth	20m - 24m
Build-out at Setback	100%
Front Setback	0m min.
Side Setback	0m min.
Front Encroachment	None
Ground Level Function	Office, retail, residential
Upper Level Function	Residential

Victoria Street (T4 Type)

Victoria Street is largely comprised of terraced houses with minimal setbacks, with different building heights on either side of the road. The street offers a model for T4 development: high density housing, typically situated in close proximity to the mixed-use nodes of the town and neighbourhood centres.

The street comprises an interesting mix of front conditions, including some homes with front gardens and others entered off the street. The street features some plantings, including street trees, with car parking on one side. In total, the density is roughly 21 units/ha.

This approach is similar to that taken for the T4 residential streets of Grandhome.

Public Frontage

Public Frontage Type	Terrace
Spatial Width	18m
Moving Lanes	1 Lane Each Way
Parking Lanes	1 Lane
Carriageway Width	8m
Kerb Type	Raised
Kerb Radius	Various
Median	No
Footway	2m
Planter Type	Tree Base
Planter Width	600mm Sq
Planter Pattern	At Tree Base
Tree Type	Thin + High

Private Frontage

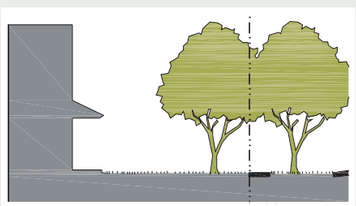
Private Frontage Type	Terrace
Building Height	1.5 - 2.5 Storey
Outbuilding Height	1 - 2 Storey
Floor above Grade	Two Steps
Building Typical	Rear Yard
Plot Width	8 - 12m
Plot Depth	50 - 62m
Build-out at Setback	100%
Front Setback	5m max.
Side Setback	No
Front Encroachment	No
Ground Level Function	Residential
Upper Level Function	Residential

Rubislaw Den North (T3 Type)

Rubislaw Den North offers another approach to residential development, which achieves a lower density, due to its comprising largely detached houses on plots able to accommodate substantial back gardens. Although the homes have varied facades and proportions, they follow a similar materials palette and scale: roughly 2-2.5 storeys.

These homes have front setbacks of 7 to 37 metres, with front gardens heavily landscaped and sometimes featuring a driveway. The carriageway is roughly 10 metres wide, with paths on either side of the road.

Grandhome's lower density streets – primarily in the T3 transect zone – feature areas with similar compositions.



Public Frontage

Public Frontage Type	Street
Spatial Width	17m
Moving Lanes	1 Lane Each Way
Parking Lanes	2 Lanes
Carriageway Width	10m
Kerb Type	Raised
Kerb Radius	Various
Median	None
Footway	3.5m
Planter Type	Broken / Paving
Planter Width	1m
Planter Pattern	TBD
Tree Type	TBD

Private Frontage

Private Frontage Type	Common Yard
Building Height	2 -2.5 Storey
Outbuilding Height	1 Storey
Floor above Grade	50 - 60cm
Building Typical	Detached Rear Yard
Plot Width	16 - 80mm
Plot Depth	46 - 86mm
Build-out at Setback	100%
Front Setback	7 - 37m
Side Setback	1m Min
Front Encroachment	None
Ground Level Function	Residential
Upper Level Function	Residential

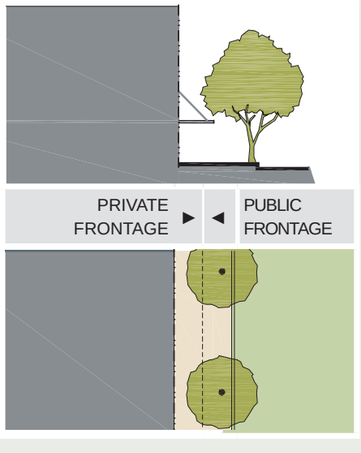
Wrights' and Coopers' Place (Pedestrian Street)

T5 T4 T3

Wrights' and Coopers' Place features houses that front onto a shared green, designed for pedestrian access and shared community use. This design strategy creates a safe and pleasant space, suitable for casual meetings or children's play. Parking and vehicular access is then provided via back streets and shared parking courts shielded from view.

The Place features varied planting, and shared street furniture such as benches. Terraces are set back from the pedestrian path by about 3 metres. Character varies along the duration of the street, from quiet green spaces to an intimate plaza. The spatial width also varies, from 8.5 metres to 15 metres, at the plaza.

Grandhome incorporates several streets of this type, offering residents a private green space, with good visibility from their homes.



Public Frontage

Public Frontage Type	Terrace
Spatial Width	18m
Moving Lanes	1 Lane Each Way
Parking Lanes	1 Lane
Carriageway Width	8m
Kerb Type	Raised
Kerb Radius	Various
Median	No
Footway	2m
Planter Type	Tree Base
Planter Width	600mm Sq
Planter Pattern	At Tree Base
Tree Type	Thin + High

Private Frontage

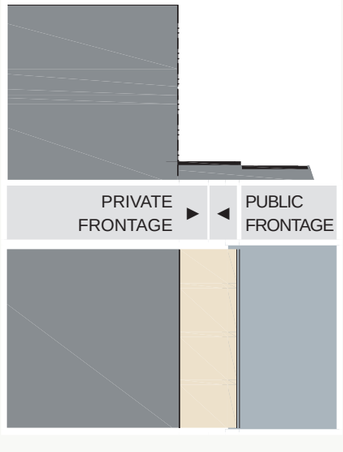
Private Frontage Type	Terrace
Building Height	1.5 - 2.5 Storey
Outbuilding Height	1 - 2 Storey
Floor above Grade	Two Steps
Building Typical	Rear Yard
Plot Width	8 - 12m
Plot Depth	50 - 62m
Build-out at Setback	100%
Front Setback	5m max.
Side Setback	No
Front Encroachment	No
Ground Level Function	Residential
Upper Level Function	Residential

Lower High Street, Old Aberdeen (Paths and Lanes)

T4 T3

The lower end of Old Aberdeen's high street has spaces of a range of characters, adhering to both the T4 and T3 condition. Pedestrian connections link the high street with the other parallel streets. This results in a variety of setbacks and turning conditions, creating an interesting frontage.

Notably, the homes have front greens of different sizes and dispositions, which contribute greatly to the visually stimulating streetscape. Although the street lacks public street trees, the many private greens and planting enable it to retain a green character throughout. The incorporation of stone walls into the street also add further character.



Public Frontage

Public Frontage Type	Shopfront / Street
Spatial Width	
Moving Lanes	1 Lane One Way
Parking Lanes	Part 1 Lane
Carriageway Width	5.5
Kerb Type	Raised
Kerb Radius	Various
Median	None
Footway	2m
Planter Type	None
Planter Width	None
Planter Pattern	None
Tree Type	None

Private Frontage (High St)

Private Frontage Type	Terrace / Shopfront
Building Height	2 - 2.5 Storey
Outbuilding Height	1 Storey
Floor above Grade	Level to 1 Step
Building Typical	Terrace / Rearyard
Plot Width	6 - 22m
Plot Depth	6.3m - 35m
Build-out at Setback	80%
Front Setback	12.5m to 25m
Side Setback	1m
Front Encroachment	None
Ground Level Function	Shop, Office + Residential
Upper Level Function	Office + Residential

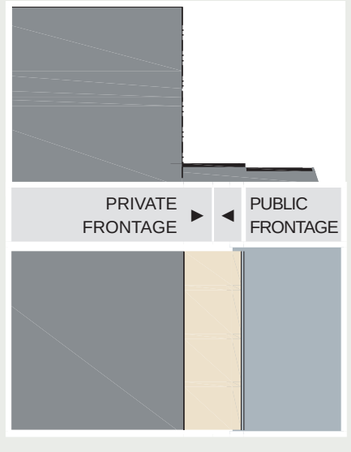
Don Street, Old Aberdeen (T4/T3- Mix of Types)

Don Street also shows a variety of conditions, representing both T4 and T3. Setbacks are varied and the carriageway condition changes from a tight one-way street into a broad one-way with parking on one side.

Houses front the street closely in its tightest condition, and gradually increase in setback with the widening of the street. Larger houses are celebrated as having the widest setback with a large garden fronting the street.

Although there is no street planting, front gardens soften the space and provide visual variety. Like the lower portion of Old Aberdeen's high street, walls of varying heights also contribute to the streetscape.

T4 T3



Public Frontage

Public Frontage Type	Commercial street
Spatial Width	14.5 m
Moving Lanes	1 lane each Way
Parking Lanes	1 Lane
Carriageway Width	9.25 m
Kerb Type	Raised
Kerb Radius	3.25 m
Median	None
Footway	2m - 3.25m
Planter Type	None
Planter Width	None
Planter Pattern	None
Tree Type	None

Private Frontage

Private Frontage Type	Shopfront
Building Height	up to 4 Storeys
Outbuilding Height	1 Storey
Floor above Grade	0m min.
Building Typical	Rear yard and terrace
Plot Width	11m - 15m
Plot Depth	20m - 24m
Build-out at Setback	100%
Front Setback	0m min.
Side Setback	0m min.
Front Encroachment	None
Ground Level Function	Office, retail, residential
Upper Level Function	Residential

Rubislaw Terrace Lane (Lane- Mix of Types)

Alongside these residential streets, the design team studied Aberdeen's lanes, such as Rubislaw Terrace Lane. Grandhome also features numerous lanes, which are designed to accommodate parking and access for houses which front onto green spaces without a main vehicular access. These conditions are featured within Grandhome's T4 and T3.

The spatial width of the lane is 8 metres. Frontage includes not only garages, but also some mews homes.

This example shows a significant amount of car parking on the south side of the lane, servicing the offices on Rubislaw Terrace. On the other hand, the houses fronting Albert Terrace, on the north side, benefit from a rear garden, private garages and home offices.

It constitutes a good example to consider as it shows the impact that office and residential uses have in the character of the rear lanes.

T4 T3

Public Frontage

Public Frontage Type	Terrace
Spatial Width	18m
Moving Lanes	1 Lane Each Way
Parking Lanes	1 Lane
Carriageway Width	8m
Kerb Type	Raised
Kerb Radius	Various
Median	No
Footway	2m
Planter Type	Tree Base
Planter Width	600mm Sq
Planter Pattern	At Tree Base
Tree Type	Thin + High

Private Frontage

Private Frontage Type	Terrace
Building Height	1.5 - 2.5 Storey
Outbuilding Height	1 - 2 Storey
Floor above Grade	Two Steps
Building Typical	Rear Yard
Plot Width	8 - 12m
Plot Depth	50 - 62m
Build-out at Setback	100%
Front Setback	5m max.
Side Setback	No
Front Encroachment	No
Ground Level Function	Residential
Upper Level Function	Residential

High Street, Old Aberdeen (T4/T5- Mix of Types)

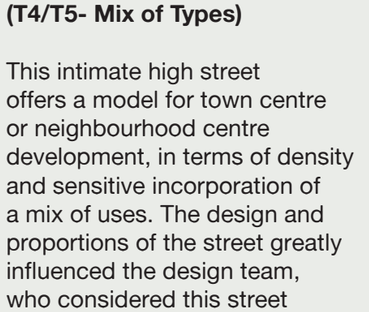
This intimate high street offers a model for town centre or neighbourhood centre development, in terms of density and sensitive incorporation of a mix of uses. The design and proportions of the street greatly influenced the design team, who considered this street when crafting Grandhome's T5 urbanism.

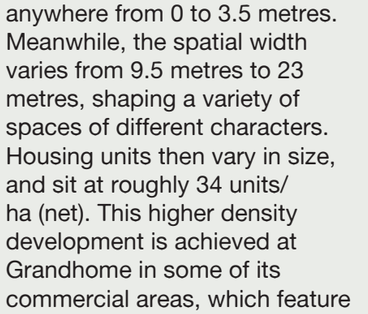
The street includes homes, some retail and public space in the form of a plaza, in front of the University of Aberdeen's old town house at the top of the high street. This terminated vista characterises the space and calls attention to this grand civic building – a design approach also used in the Grandhome masterplan, including in the approach to the town centre's primary school.

A study of the public and private frontages illuminates the proportions that create the street. The buildings are up to three storeys tall, set back anywhere from 0 to 3.5 metres. Meanwhile, the spatial width varies from 9.5 metres to 23 metres, shaping a variety of spaces of different characters. Housing units then vary in size, and sit at roughly 34 units/ ha (net). This higher density development is achieved at Grandhome in some of its commercial areas, which feature flats and terraced houses in close proximity to a high street or neighbourhood centre.

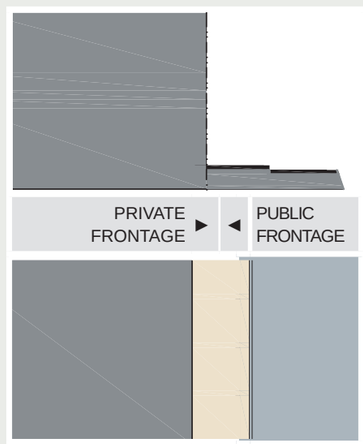
Tucked behind the high street are several courts, such as Greenlaw Court. Grandhome also features several rear courts, featuring shared car parking space and sometimes greens or landscaped areas for a small number of houses.

Grandhome also follows the high street's precedent in terms of the incorporation of outbuildings: several buildings in the high street vicinity have one storey accessory units, used as garages, granny flats or storage space.





T5 T4



Public Frontage

Public Frontage Type	Shopfront / Street
Spatial Width	
Moving Lanes	1 Lane One Way
Parking Lanes	Part 1 Lane
Carriageway Width	5.5
Kerb Type	Raised
Kerb Radius	Various
Median	None
Footway	2m
Planter Type	None
Planter Width	None
Planter Pattern	None
Tree Type	None

Private Frontage (High St)

Private Frontage Type	Terrace / Shopfront
Building Height	2 - 2.5 Storey
Outbuilding Height	1 Storey
Floor above Grade	Level to 1 Step
Building Typical	Terrace / Rearyard
Plot Width	6 - 22m
Plot Depth	6.3m - 35m
Build-out at Setback	80%
Front Setback	12.5m to 25m
Side Setback	1m
Front Encroachment	None
Ground Level Function	Shop, Office + Residential
Upper Level Function	Office + Residential

5.2.2 Density

Grandhome was designed using the transect-based planning system, which ensures that a diverse range of urban environments will develop across the site. Grandhome will not feature a single density across the entire site. Neighbourhood centres will accommodate higher density development, typicallyT5-T4 zones, whilst T3 neighbourhood edges will be home to larger plots. Figure 5.2 sets out the locations of the T Zones.

On average, the entire Grandhome site will be developed at approximately 30 units/ha, with the town centre featuring a much higher density and the neighbourhood edges featuring a much lower density. The majority of the community will be scaled at 2-3 storeys with four storey accent buildings. There may also be scope for occasional single storey development in certain limited locations. This will add to the character of the development and is appropriate considering the regional context.

Figure 5.4: Grandhome's Regulating Plan, indicating the distribution of Transect Zones

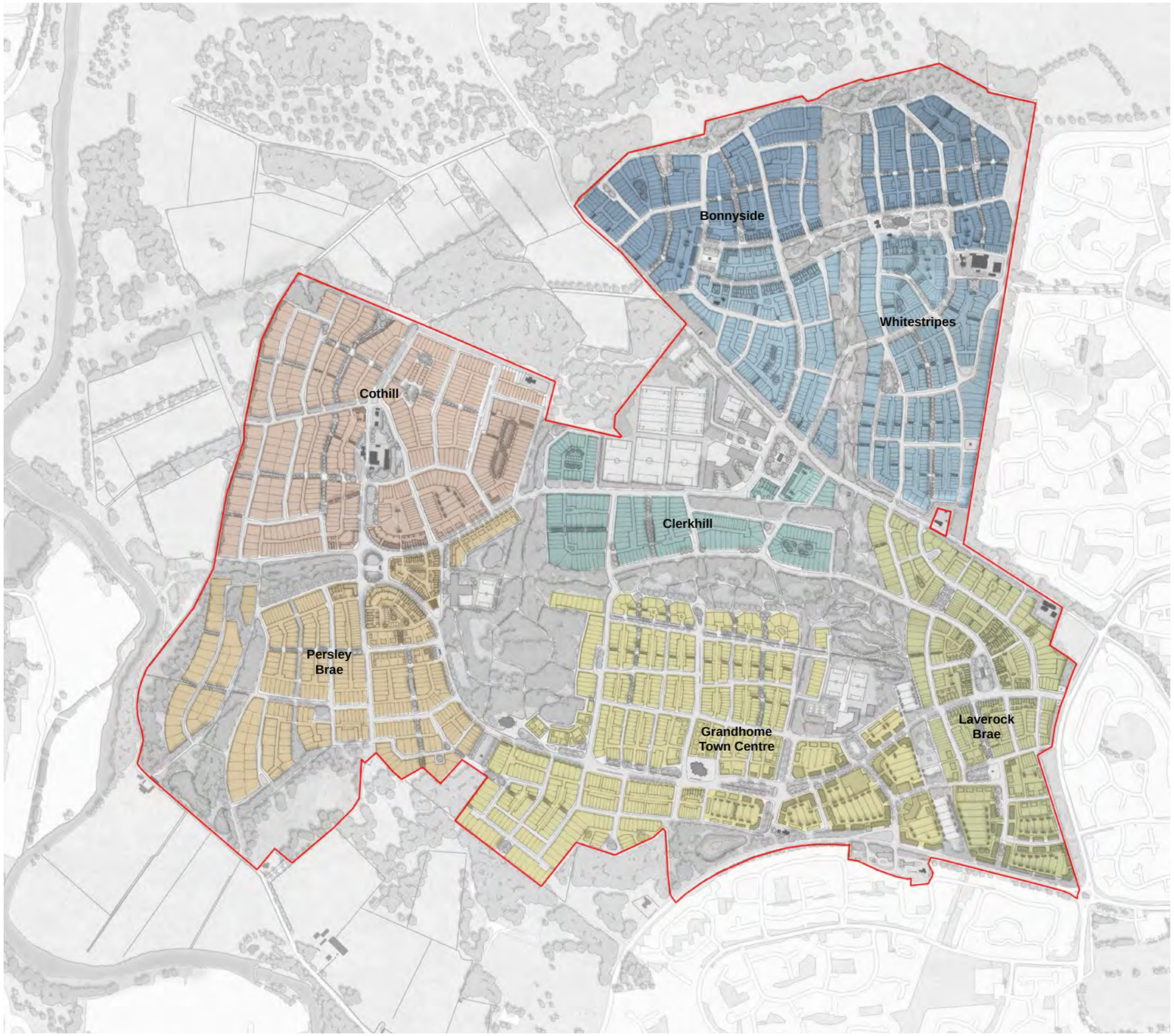
5.3 Neighbourhood + Block Structure

The Grandhome masterplan proposes the phased development of seven neighbourhoods, including a vibrant town centre and business park. Each of these areas is designed to be traversed in 5-minutes by foot, from centre to edge, with the town centre itself spanning a 10-minute walk. Shops, offices and bus stops are then located within each neighbourhood centre, providing residents with ample facilities in walking distance of their homes. Aside from the town centre, these neighbourhoods are known as Laverock Brae, Whitestripes, Bonnyside, Persley Brae, Clerkhill and Cothill – all names that correspond with historic features on the site.

These neighbourhoods' concentrations of local facilities should not only lessen residents' dependence on their cars, but also engender a sense of community. Schools and community buildings are also located within each neighbourhood, often in close proximity to shops to provide convenience for parents.

Figure 5.5: Proposed Grandhome neighbourhood structure

Each neighbourhood is also likely to develop its own character over time, given that each will be built at a different time span, and with a differing composition of architects and builders involved. However, all parts of Grandhome will follow the aspirations set out in this Framework, as well as the transect-based design regulations, meaning that their street frontages, heights and massings will be visually compatible and appropriate to the context of the region. More information on each neighbourhood is available within the Character Areas chapter of this Development Framework.



5.4 Mixed-Use Development

5.4.1 Commercial and Retail Uses

The Grandhome masterplan features shops and community facilities within a town centre intended to cater to the needs of the Bridge of Don community at large. The area will therefore provide a range of jobs for local residents and as such minimise out-commuting. This will be further enforced by the provision of live/work units alongside a range of business/ retail opportunities, ranging in size and cost. Smaller scale facilities will also be provided in the individual neighbourhood centres.

The character of the town centre embodies a traditional high street with a mix of commercial uses, mainly though mixed-use buildings with smaller retail shops on the ground floor and residential units above. A number of buildings have been identified within the town centre for specific commercial, retail and leisure uses. These include but are not limited to 25,000m2 of mixed use retail potentially including convenience shopping, local supermarket, gym, cinema and hotel.

- A Retail Impact Assessment will be prepared to support the Town Centre masterplan.

In accordance with the LDP allocation, the masterplan also features a 5ha Business Park, located on the south-eastern boundary of the site. This space is intended to facilitate integration with the Energetica corridor, and is also linked to the other Science Park activities on-going within the wider Bridge of Don vicinity. The provision of high-quality retail space, within close proximity of potential employee housing and amenity facilities, as well as the substantial existing transportation network makes the site ideal for businesses looking to move to the area.

5.4.2 Community Uses

The focus of community activity within Grandhome will be the community-use school network. However, additional sites have been identified to allow the community to bring forward specific buildings in support of its needs, including religious buildings.

Education
The current masterplan accommodates the provision of three primary schools and one secondary school, built to Scottish Futures Trust standards.The indicative masterplan places these four schools across the Grandhome site, embedded into different neighbourhoods:

- Grandhome Primary School
- Cothill Primary School
- Clerkhill Primary School and Academy (Community Campus)

Each primary school will include a sports pitch, or in some cases, two sports pitches for wider community use. The Academy is located in the centre of the site for ease of access, with the community campus and sports pitches located adjacent to the Green Belt beyond.

The final strategy for education provision will be dependent on external discussions with the education authority.

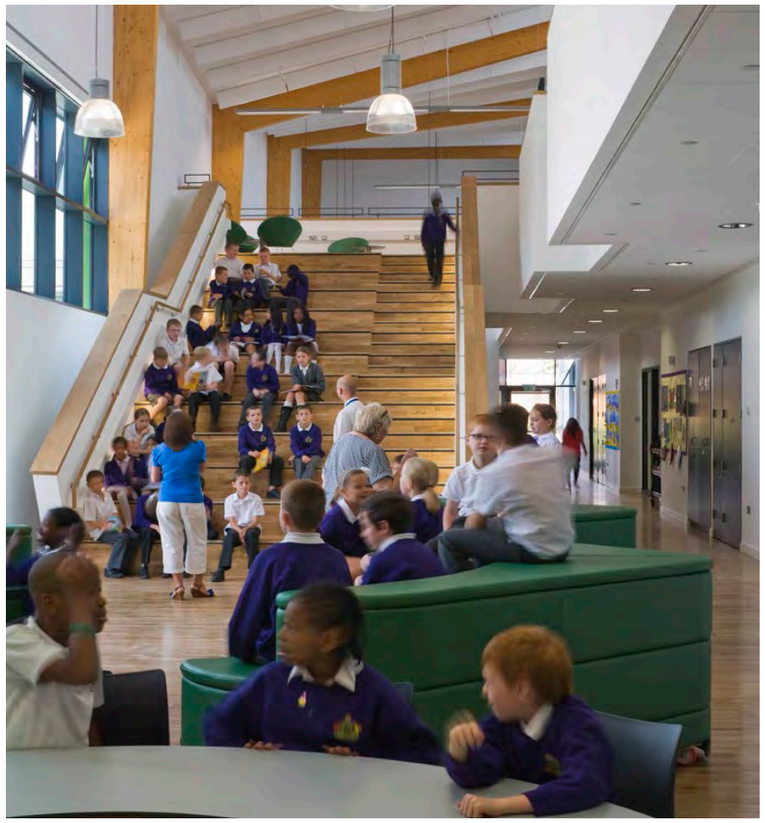


Figure 5.6, 5.7: Modern primary design: functional yet highly attractive buildings to inspire learning and enhance delivery of the curriculum.
Images courtesy of Walters & Cohen Architects ©Dennis Gilbert/VIEW.

Related Community Uses
The community schools will include a range of community services such as an early years/ day care public facility, a public library, a leisure centre with numerous sports pitches, youth provision and a family centre. These facilities will draw residents into community life and ensure that school buildings are used efficiently, both during the school week and at evenings and weekends.

Notably, the secondary school will sit on a community campus designed for use by both students and residents.

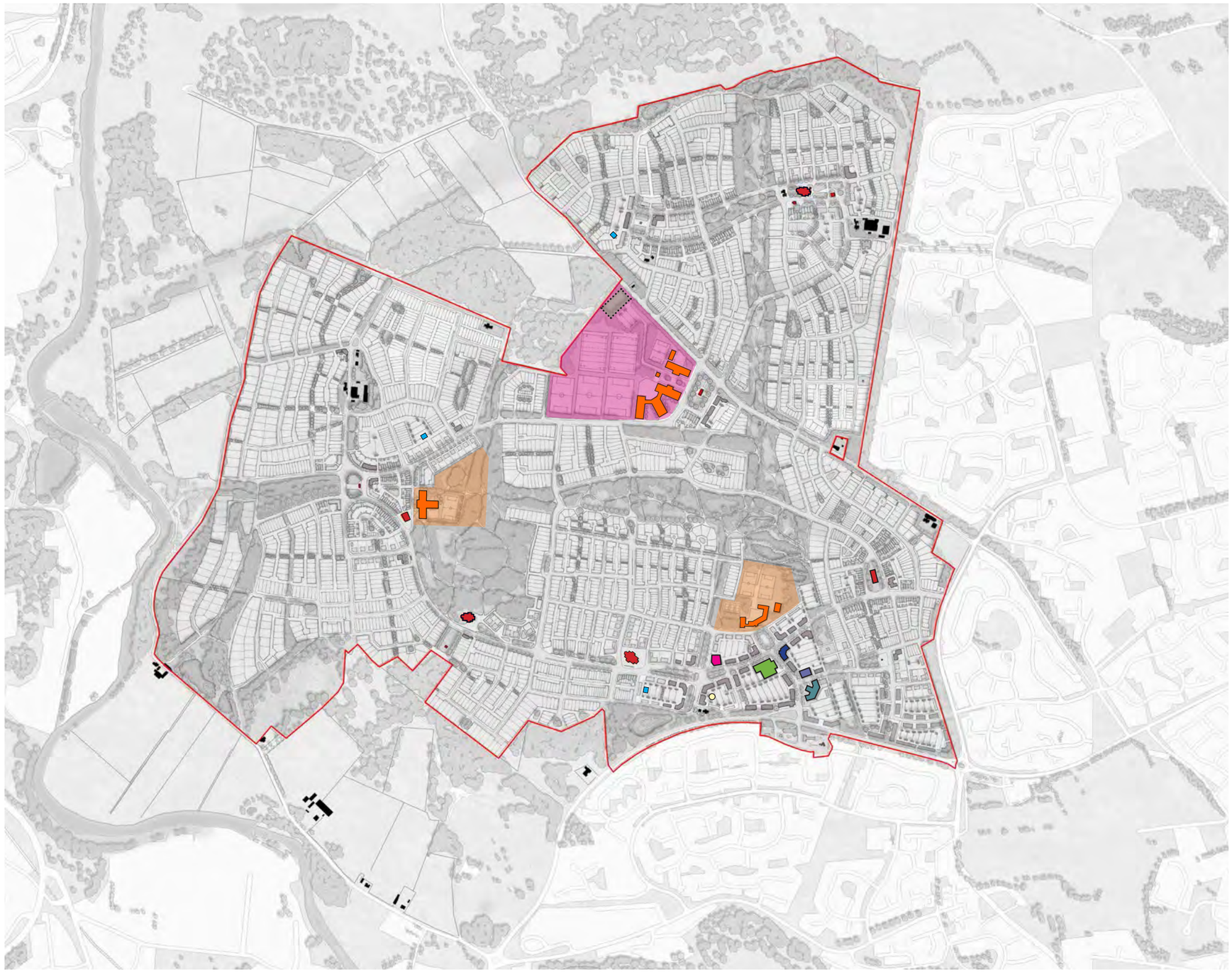
Health
Health facilities will include suitable NHS provision, as well as pharmacies and dentists within selected neighbourhoods. The majority of health provisions will be delivered at the neighbourhood scale, to accommodate demand from the new residents of Grandhome. Eventually, the population will support a purpose-built health centre, for which land has been reserved within the eastern edge of the town centre to facilitate early delivery if required.

Sustainability and Recycling
The need to move towards more low carbon economy is recognised. Future development of the site will incorporate sustainable energy practices in development such as promoting energy efficiency through building orientation, design and materials.

Recycling will be promoted through the provision of recycling facilities with recycling stations situated at convenient locations across the site.

Figure 5.8: Proposed Indicative Locations of community facilities

- Existing Buildings
- Community Primary School & Sports
- Academy, Library, Community Campus, & Sports
- Civic Buildings:
  1. Religious Building
  2. Covered Market
  3. Sites for Community Use
  4. Civic Structure / Monument
- Mixed-Use: Retail Ground Floor
- Supermarket
- Hotel
- Gym
- Small Cinema/ Theatre
- Health Centre
- LDP required Gypsy and Traveller site
- Neighbourhood Recycling
- CHP Facility



Education Facilities	Delivery	Area (ha)
Grandhome Primary School	PH. 2	3.58
Clerkhill Community Campus Primary School and Academy • *includes community sports facilities*	PH. 3-4	11
Cothill Primary School	PH. 6	3

NHS	Delivery	Area (ha)
Health Centre , Pharmacies & Dentists 16 Chair - GP	PH. 2-5	0.33

5.5 Access Strategy

The Grandhome street network will be integrated and well-connected, providing ease of movement for pedestrians, cyclists and vehicles. Scottish Government policy document Designing Streets has greatly informed the design of the street network. A residential Travel plan and travel packs will be developed and sent out to every resident.

5.5.1 Context

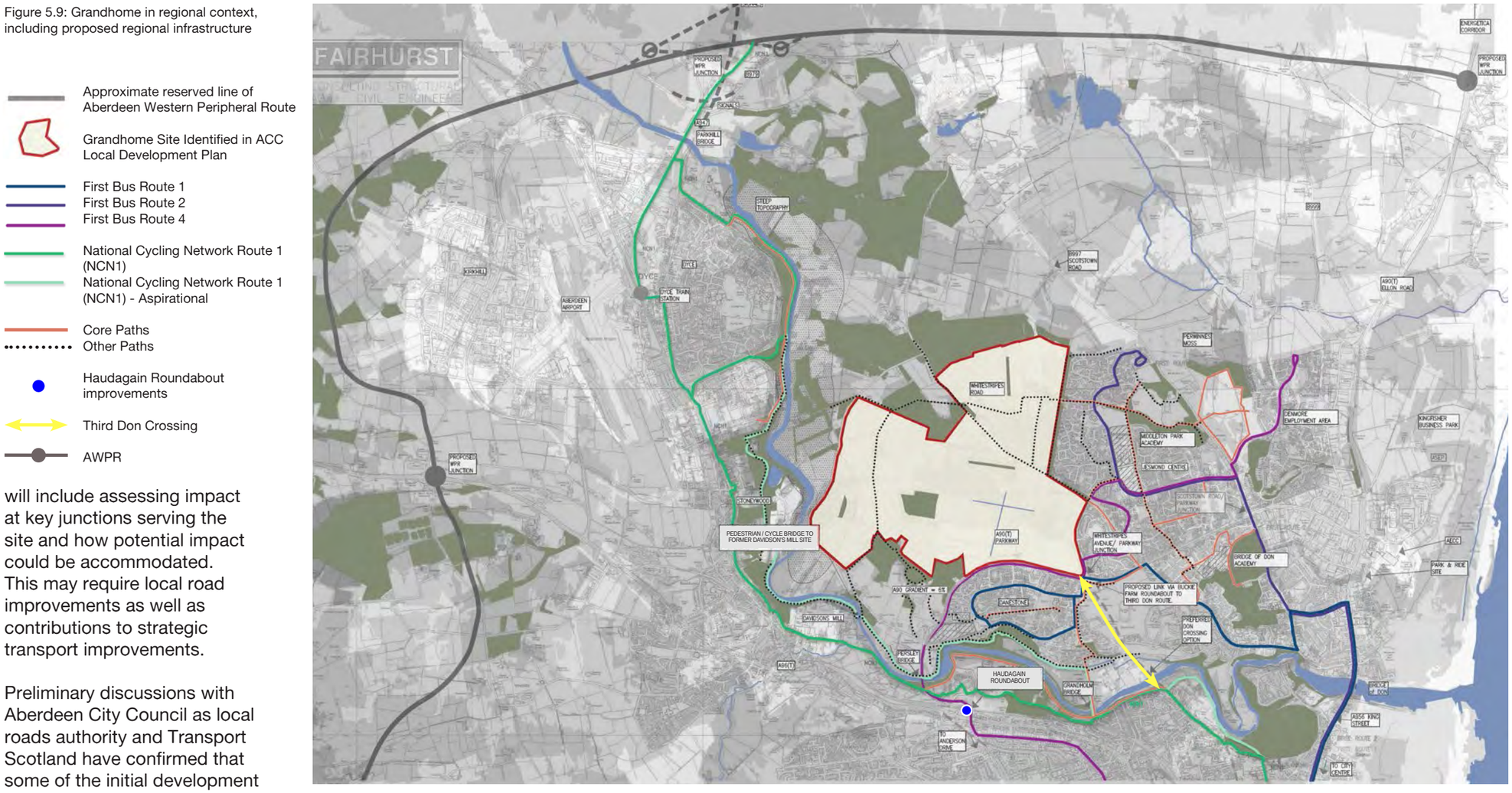
The implementation of strategic infrastructure projects is key to the delivery of Grandhome. These include the AWPR, the Third Don Crossing, and the upgrade of key junctions including the Haudagain roundabout. Together these projects will alleviate current pressures on the city's transport network including localised pinch points such as Parkway and Persley Bridge.

It is expected that once the AWPR is in place this will alleviate traffic pressures along Parkway while opening links north of the site to the strategic road network via Whitestripes Road.

A Transport Assessment is being carried out which will consider the potential traffic impact of the new settlement, and how the first phase of homes could be accommodated on the existing road network ahead of the AWPR and 3rd Don Crossing. This will include assessing impact at key junctions serving the site and how potential impact could be accommodated. This may require local road improvements as well as contributions to strategic transport improvements.

Preliminary discussions with Aberdeen City Council as local roads authority and Transport Scotland have confirmed that some of the initial development can be accommodated on the existing transport network, subject to the findings of a detailed Transport Assessment to be prepared in support of the planning applications. This may require localised road improvements to facilitate access to the site for Phase 1.

Figure 5.9: Grandhome in regional context, including proposed regional infrastructure



5.5.2 Movement Strategy

Pedestrians

The modular pattern of the masterplan is designed to ensure a high degree of pedestrian access within each neighbourhood and beyond. This is reinforced by a network of streets intended to optimise connections between the neighbourhoods, the town centre and the surrounding area. It is anticipated that residents will live within 5-minute walking distance of neighbourhood centres, ensuring ease of access to all essential amenities, as well as public transportation nodes.

Pedestrian and cycle links will ensure a high degree of permeability within the development, providing connections to the existing and aspirational core path network in the surrounding area. Essentially, all streets will be designed to accommodate pedestrians as the prime user, ensuring the optimal pedestrian experience. This will involve providing a range of street typologies to enhance legibility and curtail visual monotony, whilst also ensuring street design that calms traffic speeds and increases pedestrian safety.

Safe routes to school will also be reviewed through the masterplan and a consideration in the Transport Assessment.

Figure 5.10: Proposed key paths network

Existing:

- Roads
- Core Paths
- Aspirational Core Paths
- North Sea Route Cycle Route / NCR 1

Proposed:

- Primary Active Travel Paths
- Secondary Paths
- Vehicle-Free Routes Through Blocks
- Other Routes Available for Pedestrain and Cy-clists. eg. Roads, Lanes, Shared Surface Lanes
- Play Zones / Large Scale Play Zone
- Public Parking/ Access to Path Network
- Pedestrian/Cycle Bridge

Non-motorised Vehicles

As mentioned at left, a pedestrian and cycle network, linking to the surrounding core path network is considered a priority. The core path network reaches into surrounding built-up areas, such as Middleton Park, Danestone and Dyce, and along a section of the River Don to the west of the site, and there is an aspiration to extend it further along the river. The masterplan also connects with the existing Regional Cycle Network to ensure site permeability and accessibility.

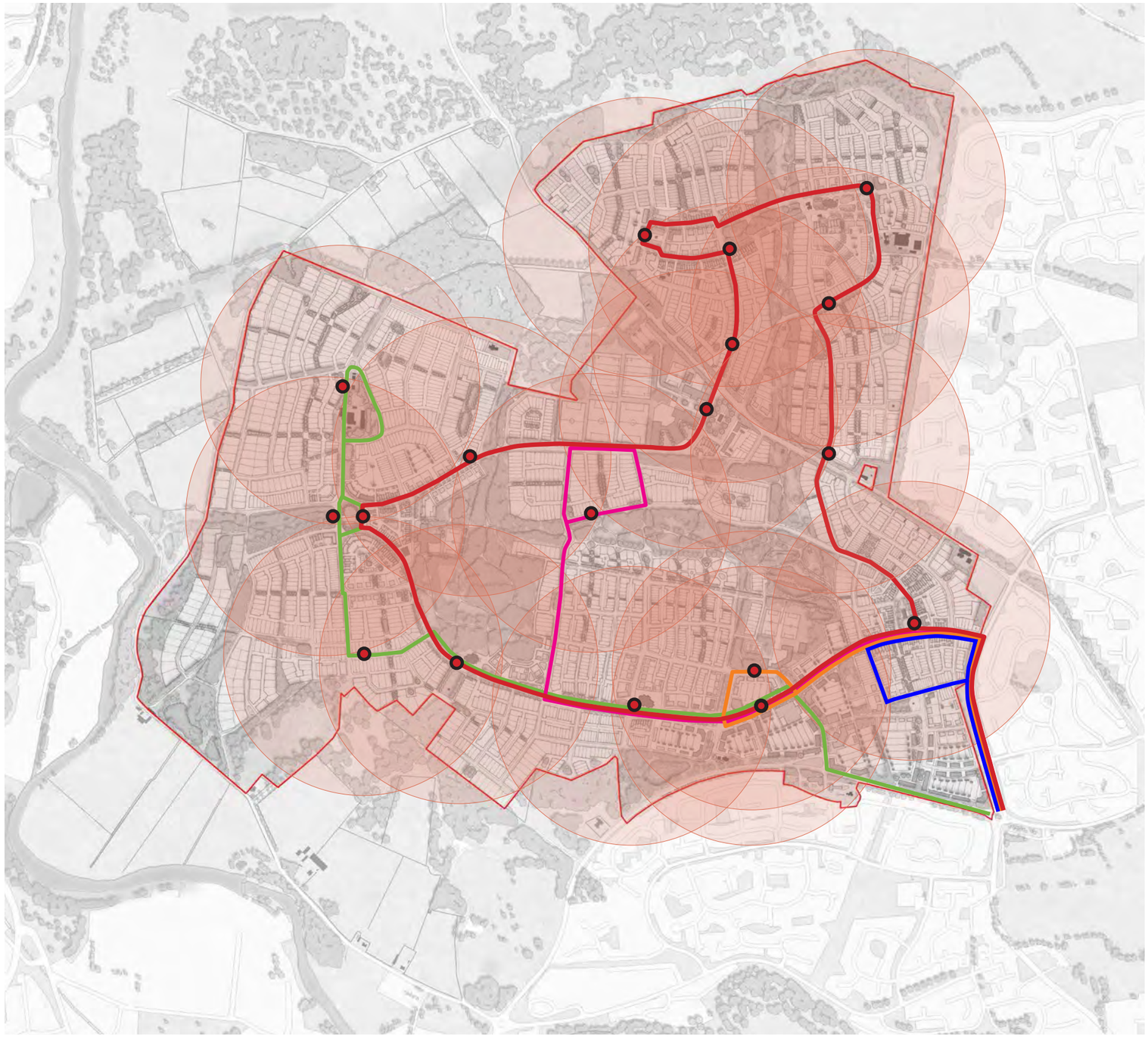
Public Transportation

The identification of a public transport strategy which provides connectivity from the development to principal employment centres, transport nodes and other attractions in the City Centre and at other locations across the city such as Dyce and Aberdeen Airport as part of the Development Framework in line with current Policy is required. The strategy requires to accommodate development phasing, and is anticipated to take advantage of the Third Don Crossing once completed.

The A90, A96 and A947 corridors all support frequent bus services, with First Aberdeen services in the vicinity of Grandhome terminating in the established residential areas of Danestone (service 1), Ashwood (service 2) and Dubford (service 4). It is anticipated that initial phases of development can be served by a variant of First service 1 which will operate via Whitestripes Avenue to the development. Initial discussions with First Aberdeen and Aberdeen City Council Public Transport Unit, and also with Stagecoach Bluebird, have informed the strategy for phased expansion of services to serve the development. Both operators have expressed interest in the provision of services and further discussions are anticipated.

Aberdeen railway station and the adjacent Union Square bus station, where connections can be made to regional and long distance rail and bus services, are approximately 5 miles from the development. Aberdeen Airport, which is served by both domestic and international flights, is approximately 6 miles west of the site.

Figure 5.11: Potential public transport bus route examined by phase



Bus routes have been identified for phased implementation, with an initial loop serving Phases 1 to 3 which links the town centre to the western neighbourhood centre and community campus. This loop is expanded to serve Bonnyside and Whitestripes, north of Whitestripes Avenue at Phases 4 and 5. A further route is anticipated to be required to serve Phases 6 and 7. Bus stops are located within a short walk of all homes in line with Policy which requires access to bus services within a 400m walk distance. The location of stops within neighbourhood centres will allow passengers access to shops and other facilities as an integral part of their journey.

The scale of development proposed is anticipated to support provision of services at a high frequency, particularly from Phase 3 onwards, further increasing the attractiveness of this mode of travel.

The strategy identifies routes via 3DC towards Aberdeen City Centre. There is also potential for the development of an orbital route from the Exhibition Centre and the Bridge of Don area via the development and the Mugiemoss development area towards Dyce, Kirkhill and Aberdeen Airport, and

a connection via the Third Don Crossing and Tillydrone towards Aberdeen Royal Infirmary.

Vehicular Access

Following comprehensive development of the settlement the main vehicular access will be provided from the A90 / Parkway with secondary accesses on to Whitestripes Avenue to the east and Whitestripes Road to the north.

The Access Strategy for the site proposes that initial access will be taken from Whitestripes Avenue to serve the first phase of development with a potential second access from Whitestripes Road. As the settlement continues to expand northwards further accesses will be provided on to Whitestripes Road. Future phasing after the implementation of the AWPR anticipates access taken from the Parkway which will then form the main access point to the development and provide a more direct access to the town centre.

The exact location, form and detailed layout of the junction required at each access will be determined through the TA process.

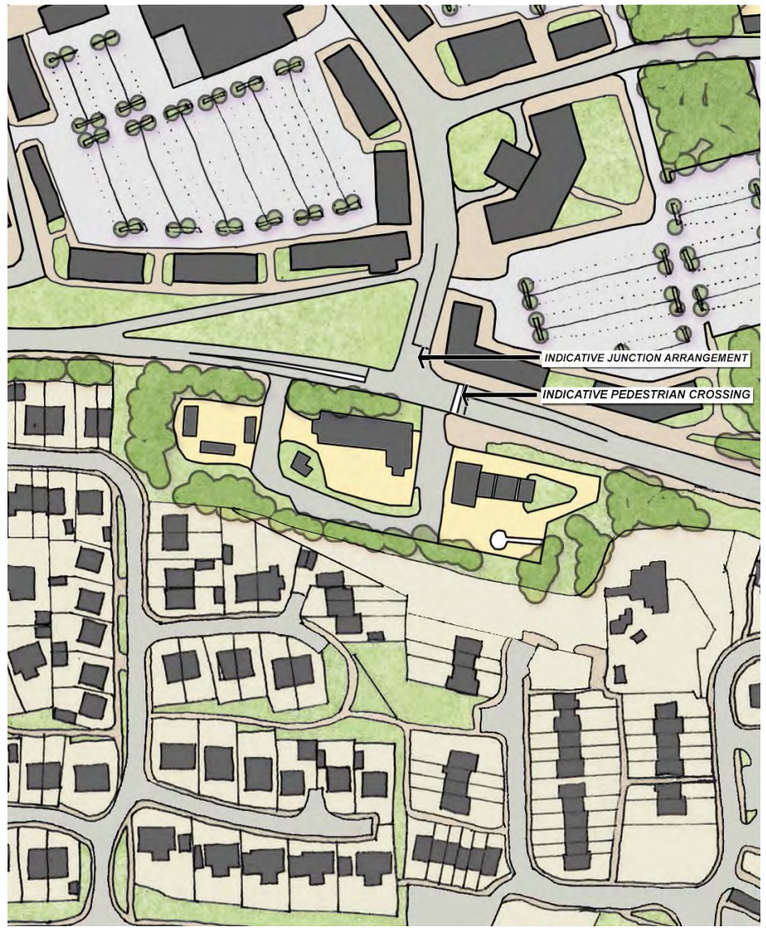


Figure 5.12: Indicative junction arrangement from the Parkway.

Figure 5.13: Proposed access point on Whitestripes Avenue

Grandhome Parking Strategy

The development framework includes a mixed neighbourhood parking strategy within residential areas, allowing for on-street, on-site (side/rear garage), courtyard, and mews parking arrangements.

The following principles will underpin the parking strategy for Grandhome:

- Minimising the impact of car parking on public realm, for instance locating car parks behind high-density mixed-use blocks to create more attractive streetscapes.
- In mixed-use areas, ensure car parking provision is shared when the demand for different uses varies over different times and days.
- Garages shall be counted towards the overall parking provision for residential units.

This approach will act to calm traffic, add character and variety to the streetscape, and provide active frontages to the residential areas.

These principles will be developed further by the Transport Assessment and applied by each masterplan, specific to the issues that the different parts of the site will generate.

5.6 Street Type and Design

5.6.1 Designing Streets

Grandhome is designed following the policies contained within 'Designing Streets'. The Charrette thus focussed on incorporating these principles into the Grandhome masterplanning process, with the design team working alongside stakeholders to explore the policy document and the opportunities presented by it.

Since initially engaging with the policy document at the Charrette, the design team have continued to prioritise the policies contained within 'Designing Streets'. Moreover, the design team have endeavoured to consult with the Scottish Government whenever possible, to ensure a design solution aligned to the policy's aims and aspirations. The design team is committed to following 'Designing Streets' as closely as possible, in order to create a vibrant, walkable community which can become a model for Scotland.

'Designing Streets' proposes that new communities should adhere to a series of qualities. All of these have been considered by the Grandhome design team and addressed within the masterplan:

Distinctive:
Street design is an important element of each neighbourhood's distinctive identify, given the differing combinations of streets, mews, alleyways and thoroughfares of other sizes and characters. The use of block layout and character areas will allow greater orientation and navigation within the settlement.

Easy to move around:
Grandhome is designed to have a well-connected street network, in which it is very easy to move from one destination to another, whether by foot, cycle orpublic transport. The masterplan ensures this by proposing a legible network of thoroughfares including gridded blocks, and by avoiding cul-de-sacs and separated uses. The central road around Grandhome, connecting the principle neighbourhood centres and all primary schools, will also provide a clear and logical path for a local bus route.

Figure 5.13: Distinctive - example of indicative commercial streetscape

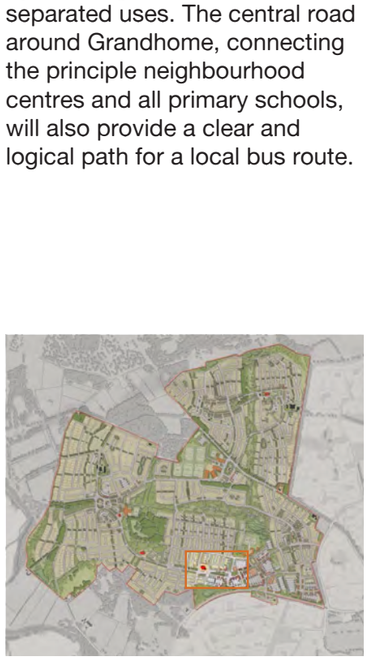


Figure 5.14: Easy to move around - pedestrian connectivity within and to/from the site

Safe + pleasant:
With most streets designed to 20mph, Grandhome will be pleasant, safe and conducive to pedestrian and cycle activity. Landscaping will also be used to facilitate traffic calming while long straight streets will be avoided to discourage speeding.

The site is characterised by variant gradients which bring challenges to connectivity and development. Several areas on the site with more substantial gradients, such as the ridge in the centre of the site, have been identified as steep and thus incorporated into the masterplan as parks rather than parts of the street network. This approach ensures that cut and fill is kept to a minimum and the site's natural contours are preserved. The topography plan on page 10 highlights areas with slopes greater than 8%. How topography will be addressed in street design will be dealt with at the Masterplanning/statutory planning application stage.

Well designed and positioned signage, street furniture and street lighting will be applied to ensure safety and functionality.

Figure 5.15: Safe + pleasant - relationship with site topography and road layout

Resource efficient:
By including substantial employment land, retail, schools and community uses alongside shops, Grandhome offers residents a chance to access more of their daily needs by foot and thus lessen their petrol consumption. The aspiration is to provide for residents' daily needs within a five minute walking distance of all homes. The Development Framework is also designed to accommodate cycle paths and efficient local and regional bus routes, which will again ensure that residents only use their cars when absolutely necessary.

Existing natural features will be incorporated into the design of streets to create natural and distinctive areas. This includes incorporating existing trees, wooded areas and stone dykes where possible to create attractive streetscapes.

Where possible building materials will be sourced locally, and selected and detailed to minimise long term maintenance obligations.

Figure 5.16: Resource efficient - example of street drainage

Figure 5.17: Resource efficient - existing stone dykes and trees will be incorporated as key features

Adaptable:
The Grandhome masterplan is designed to be implemented in phases which can be built in line with the demands of the housing market. These phases are designed as self-sufficient neighbourhoods which can flourish regardless of the status of the settlement as a whole. Street design is a key element of the composition of each neighbourhood and streets are designed to be adaptable by allowing, where appropriate, a variety of vehicle movement and car parking opportunities which do not compromise pedestrian/ cyclist accessibility and do not detract from the sense of place. Connections to the existing roads network respond to the current junction arrangement where appropriate. The proposed street layout allows for potential future junctions onto Whitestripes Avenue but is not reliant on these connections.

Allowance has been made in the layout for the potential future widening of parts of The Parkway and Whitestripes Road.

Figure 5.18: Adaptable - car parking to the rear of properties

Figure 5.19: Adaptable - opportunities to provide connections from the Parkway access to Danestone

Welcoming:
Grandhome is designed to be a unique community, comprised of homes responding to the best of the contemporary and vernacular architectural traditions. The community will be fundamentally welcoming due to its high-quality design and the provision of neighbourhood and town centres uses within walkable distances. In short, the community will be home to residents of many ages, family sizes and aesthetic preferences. The settlement's memorable public spaces and safe streets will also encourage residents to spend time outdoors in their neighbourhoods and thus foster a welcoming community spirit.

By focusing on these place-based objectives, the Grandhome design team has proposed a masterplan which is sensitive to the site and its context and which achieves Designing Streets' objectives in terms of street network design.

Figure 5.20: Welcoming - indicative view of traffic-free streets will be a key feature

Figure 5.21: Welcoming - the plan features many public green spaces, designed for community events and gatherings

5.6.2 Street Types

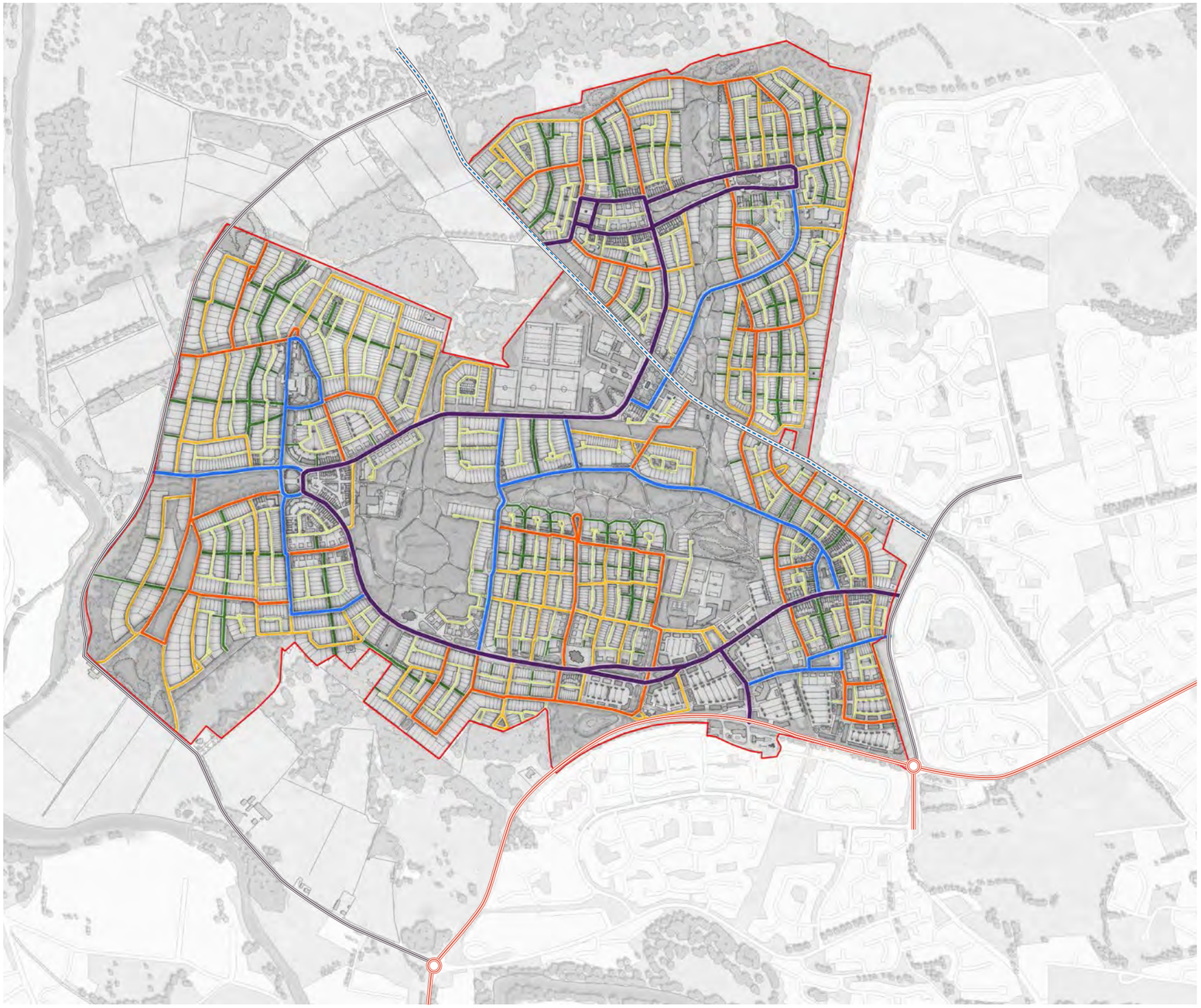
Grandhome's masterplan features a permeable, hierarchical street network, ranging from regional roads to quiet residential streets to pedestrian-only passageways. This hierarchy also follows the transect, with different types of streets proposed for each zone. Indeed, different types of roads will be designed in line with the varying densities, uses and building dispositions of each transect zone. All of these roads will be designed to provide a pleasant pedestrian experience and accommodate pedestrians and cyclists alongside drivers as appropriate.

The plan at right indicates the different types of streets within this hierarchy. Both the high street and main street road types are able to accommodate buses, and are thus used for the proposed bus route. Streets and minor streets then primarily access residential roads, whereas lanes and courts are designed for shared vehicular and pedestrian use, and may feature car parking. Paths scaled exclusively for pedestrians are indicated within this plan as well, although all roads also include provisions for comfortable pedestrian use.

Street tree species will be selected to suit the street type. Larger tree species will be accommodated in major streets or squares while smaller or more narrow-growing species will be used in minor streets, lanes or courts.

Where the development engages with existing roads, these have been included within the hierarchy so the urban design response to these existing features can be determined at the earliest stage. These include Whitestripes Road and Grandhome Road.

Figure 5.22: Proposed Grandhome street types



Proposed Sample Street Types

The street hierarchy developed for Grandhome includes a range of street types reflecting those typical of the Aberdeen neighbourhoods studied by the design team. All of these street types are designed to carefully manage traffic, incorporating traffic calming measures to ensure the safety of pedestrians and cyclists. The design process has included engineers, urban designers and landscape specialists, all working together to achieve a good outcome. Each of Grandhome's streets will be designed to best suit its local topography, so it is unlikely that any two streets will be identical in design. However, a few potential street types, which are prevalent in the masterplan, can be described as follows:

Existing Thoroughfare Upgrade

T5 T4

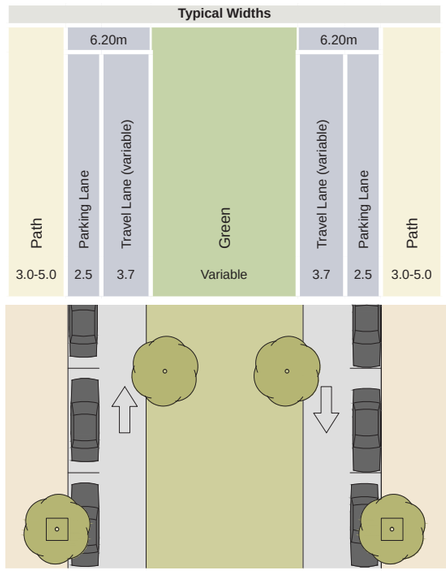
Existing Thoroughfare Upgrade: a rural and suburban thoroughfare of medium vehicular speed capacity. Its public frontage consists of landscaping drained by percolation and a walking path or bicycle trail along one or both sides.

Planting Type
Verge
Planting Species
Multiple
Planting Arrangement
Cluster
Kerb Radius
TBD
Kerb Type
TBD
Design Movement
Free movement
Notes
Path shall be optional on one side.

High Street

T5 T4

High Street: a local, slow-movement thoroughfare suitable for the Centre Zone, providing frontage for higher density mixed-use buildings such as live-work units, shops, and offices. It is urban in character with raised curbs, storm drain inlets, and striped on-street car parking.



Planting Type
Tree Pits 18- 24m o.c.
Planter optional when path exceeds 3.0m.
Planting Species
Single
Planting Arrangement
Regular
Kerb Type
0.1m Kerb
Design Movement
Slow
Notes
Shopfront and tree spacing should be coordinated.

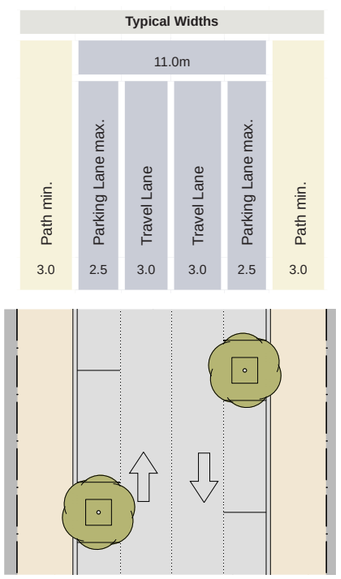
Large tree types at maturity

Parallel parking may be placed intermittently.

Main Street

T5 T4

Main Street: a local, slow-movement thoroughfare suitable for traversing different zones, providing frontage for higher density residential as well as live-work units, shops, and offices. It is urban in character with raised curbs, storm drain inlets, and striped on-street car parking.



Planting Type
Tree Pits 18-24 m o.c.
Planter optional when path exceeds 3.0m
Planting Species
Single
Planting Arrangement
Regular
Kerb Type
0.1m Kerb
Design Movement
Slow
Notes
Shopfront and tree spacing should be coordinated.

Large tree types at maturity

Parallel parking may be placed intermittently.

Urban Road: Whitestripes Road and Whitestripes Avenue accommodate higher volumes of traffic owing to their potential connection to major routes such as the AWPR. Although design speeds have yet to be determined, the masterplan aspires to 30mph to ensure street activity and movement across these routes is not curtailed to the disadvantage of cyclists and pedestrians.

High Street: The town and neighbourhood centres will feature streets with a convivial mix of facilities for drivers and pedestrians. These roads are likely to feature significant street furniture and public spaces such as squares and plazas, and its spatial width will vary along is length. A green median will feature the high street when it connects civic locations within the urbanized areas of the Town Centre, Bonnyside and Whitestripes neighbourhoods, being conceived as an elongated square. The typical section of the High Street will accommodate wide variable paths, street furniture, parallel parking and trees in individual planting pits. Clear trunks will be necessary to avoid interference with shopfronts and awnings. At Grandhome, all high streets are scaled for use by buses and are thus included within the proposed bus route. Cycle routes or shared paths will be provided as appropriate.

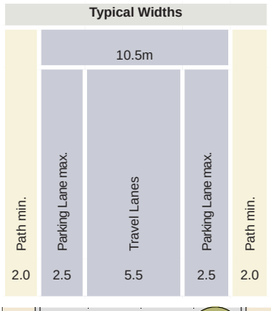
Main Street: Areas throughout the development have been designated for higher capacity movement similar to the High Street, for servicing. These street frontages are envisaged to serve as complimentary to the High Street but secondary in character. Main Streets also serve phasing development access for the proposed bus route as well as assist in traversing different zones in conjunction with the High Street.

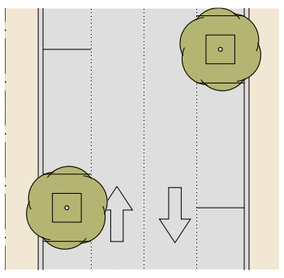
Street

T5 **T4** **T3**

Street: a local, slow-movement thoroughfare suitable for General, Centre, and Core Zones. Streets provide frontage for higher density buildings such as offices, shops, apartment buildings and terrace houses.

Typical Widths





Planting Type
Tree Pits Optional 12- 18m o.c.
Planter optional when path exceeds 3.0m
Planting Species
Single
Planting Arrangement
Regular
Kerb Type
0.1m Kerb
Design Movement
Slow
Notes
Shopfront and tree spacing should be coordinated.

Paralell parking may be placed intermittently.

Tree Pits and planters optional and may be placed in between parking spaces.

Smaller tree types planted at maturity

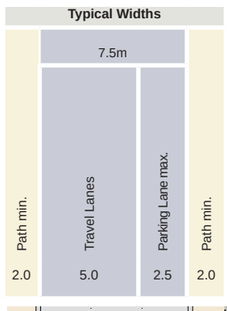
Residential Street: Most residential streets in Grandhome will feature traffic in two directions and car parking on either side of the road, along with landscaping and paths. This on-street parking will be used by both Grandhome residents and their visitors. These streets will be designed for speeds up to 20 mph.

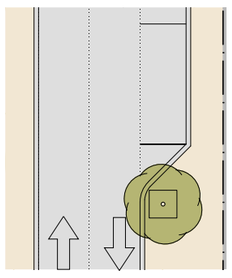
Minor Street

T5 **T4** **T3**

Minor Street: a local, slow-movement thoroughfare suitable for General, Centre, and Core Zones. Streets provide frontage for higher density buildings such as offices, shops, apartment buildings and terrace houses.

Typical Widths





Planting Type
Tree Pits Optional 10 -18m o.c.
Planter optional when path exceeds 3.0m
Planting Species
Single
Planting Arrangement
Regular
Kerb Type
0.1m Kerb
Design Movement
Slow
Notes
Shopfront and tree spacing should be coordinated.

Paralell parking may be placed intermittently.

Tree Pits and planters optional and may be placed in between parking spaces.

Smaller tree types planted at maturity

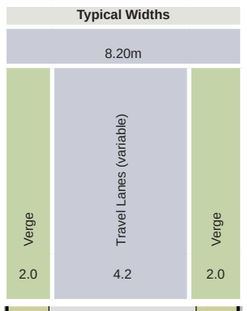
Minor Street: Based on the Street, these are intended for slow, localised residential movement in Grandhome. These streets provide for access in addition to servicing units. Additionally, Minor Streets accommodate on-street parking designated on one side. Like Streets, they will work through all T-zones in Grandhome.

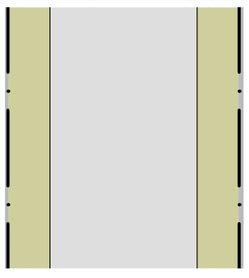
Lane / Court

T4 **T3**

Rear Lane: A shared surface providing access to the rear of plots. A Rear lane is designed for vehicular and pedestrian use and may be lined with housing units, in addition to garages and other car parking provisions.

Typical Widths





Planting Type
N/A
Planting Species
N/A
Planting Arrangement
Regular
Kerb Radius
TBD
Kerb Type
0.1m Kerb
Design Movement
Slow

Rear Lane: Some properties in Grandhome will feature rear lanes, to access garages and back car parking bays.

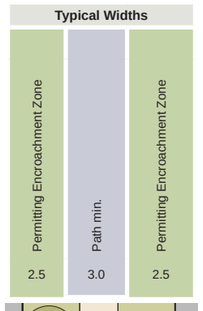
Pedestrian Path

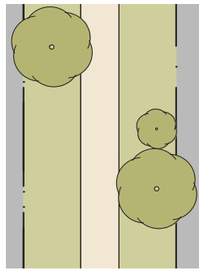
T5 **T4** **T3**

A pedestrian way providing access to plots within a block. A pedestrian way is connected to the street network.

Synonymous with Close

Typical Widths





Planting Type
N/A
Planting Species
N/A
Planting Arrangement
Regular
Kerb Radius
TBD
Kerb Type
0.1m Kerb
Design Movement
Slow

Pedestrian Passageway: Pedestrian passageways are designed across the entire masterplan, to ensure that pedestrians are always able to efficiently travel from one destination to another, following typical ‘desire lines’. These pleasant pedestrian environments, which will typically feature landscaping and intimate squares or seating areas, will complement the pedestrian network in place across the rest of the Grandhome street network.

Grandhome thus responds to 'Designing Streets' by incorporating a variety of thoroughfare types, designed to be well-connected and pedestrian-friendly. The masterplan features both a rectilinear grid/lattice of short streets, and more picturesque roads designed to follow the contours of the natural landscape. All of these streets will be designed to reduce traffic speeds using measures which double as public realm improvements. This offers a clear contrast to the design style of previous suburban development in the Bridge of Don, including the cul-de-sac development to the south and east of the Grandhome site.

Grandhome's streets will also be designed to work with the topography and therefore be as inclusive as possible. However, where gradients exceed 6%, rather than relying on unsustainable cut and fill, the design team will look to provide alternative routes where possible through the detailed masterplanning process. Several areas on the site with more substantial gradients, such as the ridge in the centre of the site, have been identified as steep and thus incorporated into the masterplan as parks rather than parts of the street network. This approach ensures that cut and fill is kept to a minimum and the site's natural contours are preserved.

Safety will be a key factor in designing the street hierarchy and this will be achieved through a number of vehicle speed management measures including staggered crossroads, structural planting along street verges and avoiding long straight streets with uninterrupted visibility that encourage speeding.

5.6.3 Quality Audit

Grandhome's thoroughfare network design will also be informed by a Quality Audit, focusing on adherence to 'Designing Streets'. The objective of a Quality Audit is to ensure the principles set out in the document remain the focus of good street design during the detailed masterplanning process. The design team's architects and engineers work alongside the Council's engineers to determine detailed streetscape design, in the process addressing accessibility, public transport strategy, car parking, street adoption and many other key issues. This process typically involves a series of workshops, during which the street plans are tested against various requirements and modified to achieve the Council's desired objectives whilst remaining in line with the Framework.

By undertaking a Quality Audit, the design principles established by that process frame the subsequent Roads Construction Consent procedures and potentially speed up this part of the delivery process. Critically, the group ensures that technical considerations do not eclipse design aspirations.

Figure 5.23: Grandhome masterplan, highlighting the latticed street network connecting the mixed-use neighbourhoods and response to the existing development.

5.7 Landscape Strategy

5.7.1 Landscape concept

GSN (Green Space Network) principles illustrated in the LDP have been used to configure an extensive network of greenspace within the developed area and connecting to areas beyond the boundary. The network includes the prime north-south link between Clerkhill Wood, Monument Wood and Persley Wood indicated in the LDP, while more than double that quantity of greenspace has been added, with additional green corridors spreading towards the west and east, and linking to another major greenspace corridor running north and linking to Grandhome Moss.

The landscape concept diagram shown right shows in notional terms the principle of a green web, or matrix, that spans the site. The matrix represents a network of green spaces running through the new development that will have multiple functions. The matrix will, for example, define neighbourhoods, act as a setting for recreational facilities, provide linked up habitats for wildlife, and incorporate a dedicated, connected set of paths to allow people to move freely through the development on foot or by bike.

The configuration of the matrix builds upon existing landscape features such as woodland blocks, tree belts and topographical features that subdivide the site. The distinct character zones that it creates, to the west, north and east, will be reinforced in the new development, through a tailored approach to the design of buildings and landscapes in different neighbourhoods.

Important ridge lines and tree belts that contribute to the silhouette of the site when seen from afar and that currently subdivide the site will be retained and enhanced, connected up and reinforced with additional planting. This includes key tree belts in and around the edge of the site as well new planting to connect significant woodland blocks at Persley Quarry, Monument Wood and Clerkhill Woods. The linked woodlands will create an important north-south landscape corridor defining the ‘Donside’ neighbourhood to the west and the rest of the development facing east.

The green matrix will also incorporate public parks as key social spaces at the heart of each neighbourhood. They will be designed to serve both new and existing communities. There will be a major town park in the east

Figure 5.24: Grandhome’s conceptual green network

and two local parks, one in the northern part of the site and one to the west.

There will also be a full complement of social and recreational nodes scattered throughout the green space matrix forming points of interest and focal points. These will include civic squares, village greens, playgrounds, seating areas, viewpoints, sites for public art and the like.

5.7.2 Landscape structure

The green space matrix will comprise a hierarchy of landscape elements based on the type, scale and function of the space:

Key landscape links - large scale spaces and significant blocks of trees connecting to make a green network running through the site; design driven by both habitat and amenity potential.

Secondary green spaces - public green space outside the key landscape links usually accommodating secondary or supporting uses and including school grounds, urban greens or landscape strips subdividing neighbourhoods; design may be formal or informal but design of elements within the spaces will be driven by habitat potential.

Figure 5.25: Grandhome landscape structure

(All elements indicative only)

Buffer Strips - narrow strips of planting used primarily to define boundaries or to screen or filter views to the development.

Minor landscape links and avenues – urban spaces with intermittent greenery including street trees, shrub beds, verges/ areas of lawn, climbers and container planting, for example.

5.7.3 Landscape framework

The vision for Grandhome is to create a settlement with a high proportion of open space accommodating a full range of uses such as formal recreational facilities and informal places for rest and relaxation, as well as natural, untamed areas that support biodiversity.

Figure 5.26: Landscape uses within Grandhome

Figure 5.27: Landscape Framework- elements

EXISTING WOODLAND

- existing woodland to be retained and actively managed
- monoculture plantation will be replaced over time with a mix of native species
- planting designed to optimise habitat value
- informal paths provided for public access


WOODLAND

- new mixed-species, structurally diverse woodland
- based on key native deciduous and coniferous species
- designed for both amenity and ecological purposes
- low proportion of understorey plants to maintain sightlines and encourage public access


TREE BELTS

- tree belts on ridgelines
- extends the characteristic Carrot Belt feathered silhouette on the city skyline
- acts as green/soft subdividing filters running through the development
- creates connected ecological corridors between woodland blocks
- orientated north-south to avoid creating dense shade
- open understorey with informal paths provided for public access


MEADOW+COPSE PARKLAND

- informal parkland weaving between more formal recreational spaces
- with open, dry and wetland grass areas, potentially with a variety of management regimes
- for informal amenity purposes and to create important grassland habitats.
- sculpted earth shaping may be used to create visual interest and guide views and patterns of movement
- copses of trees will be arranged to complement the earthshaping
- the space will be crossed by a network of formal and informal paths


AVENUE

- formal street tree planting
- single or double rows, opposite or staggered
- with or without verges
- hardy species with distinctive form and/or seasonal effects



PEDESTRIAN GREEN LINKS

- pedestrian/cycle-priority links through blocks
- predominantly hard with localised planting where street widens or in small squares
- other greening to be provided by resident's pots/window boxes, climbers on walls, garden pla



PLAY ZONES

- identified play areas
- exploiting surrounding landscape character to create diverse play environment
- includes formal and informal play environments, including natural play
- different age groups catered for, as per best practice




SPORTS FACILITIES

- sports facilities for shared school and comm


LOCAL PARK

public gardens at the heart of a neighbourhood

- integrating existing features such as trees, burns or stone walls
- lawn areas for informal recreation
- mix of formal and informal tree planting to subdivide the space, frame views and define activity zones
- may incorporate facilities such as seating, shelter, bowling green, remembrance garden, community orchard






CIVIC SPACE

- formal spaces around civic buildings
- may include hard and/or soft landscaping
- includes flexible space for public gatherings and events
- potential sites for civic art/commemoration features
- includes parking for events


SUDS

- infrastructure for sustainable drainage
- wherever possible, will also provide an amenity resource and/or enhance biodiversity


EDGE/BUFFER LANDSCAPE

- structural edge planting to screen or filter views
- decorative species used along visible edges
- designed to contribute to the composition of key views to the developn
- multifunctional landscapes, incorporating suds, informal play or paths, and generally designed to enhance biodiversity


ALLOTMENTS

- land set aside for individuals or community groups to grow their own food or flowers
- may include traditional allotments or community/school gardens or orchards


The Grandhome masterplan includes a range of open spaces, with many types of greens and uses within each neighbourhood. The detailed allocation of each type of space will be outlined in the forthcoming Masterplan Statements. However, each space's range of uses and features can be described as follows:

- **Public open spaces** will be designed to be multifunctional and flexible to ensure that they are used to the full.

- **Watercourses** existing within the development provide an opportunity to enhance and fully incorporate within the development layout as part of the network of sustainable urban drainage system (SUDs) and to enhance public spaces. All watercourses will be protected within a suitable area of open space in accordance with Aberdeen City Council's Natural Heritage Supplementary Guidance.

As per policy and best practice, all existing watercourses have been retained and incorporated into the masterplan layout. Two small streams on the west edge of the site, plus two manmade drainage ditches and a flooded quarry to the east have been integrated within public green space and developed as attractive landscape features The hydrological regime around the flooded manganese quarry and ditches is being further investigated to determine how these can be retained to:

- assist with the efficient management of water

- provide an attractive landscape feature (while preserving public safety)

- enhance biodiversity

It is proposed that the field drainage channels running east-west and north-south from the quarry are integrated with the townscape, as small watercourses in narrow landscape corridors. The structures at bridging points will be kept minimal and leave a continuous channel bed. Following traditional towns and villages, the character of the watercourses will change depending on the nature of the surrounding context, being more rustic in lower density areas but becoming more formal in more dense, urban areas. Details of the design will be provided during masterplan development.

Given the proximity of the

Table 5.2: Landscape Framework - elements

Framework element	Description
Existing woodland	• existing woodland that will be retained and actively managed • monoculture plantation will be replaced over time with a mix of native species • planting will be designed to optimise habitat value • informal paths will be provided for public access
Woodland	• new, mixed-species, structurally diverse woodland will be planted • woodland will incorporate native deciduous and coniferous mixes • it will be designed to meet objectives for both amenity and ecology • there will be a low proportion of understorey plants to maintain sightlines and encourage a sense of security
Tree belts	• the characteristic Carrot Belt feathered silhouette on the city skyline will be protected and extended • tree belts will be used as green/soft subdividing filters running through the development • tree belts create connected ecological corridors between woodland blocks • belts should be orientated north-south to avoid creating dense shade • they will have an open understorey with informal paths provided for public access
Meadow + copse parkland	• informal parkland will weave between, and connect, more formal recreational spaces • it will include a variety of open, dry and wetland grass areas, potentially with a variety of management regimes • it will be used for informal amenity purposes and to create important grassland habitats • sculpted earth shaping may be used to create visual interest and guide views and patterns of movement • copses of trees will be arranged to complement the earth-shaping • the space will be crossed by a network of formal and informal paths
Town park	• the park will incorporate a formal public park and/or public gardens; it will be a destination at the heart of the new development • the ground may be sculpted to create a series of south-facing terraces • ornamental tree species/arboretum planting will be introduced • the park may include a series of distinct garden areas with different characters and purposes • there will be focal spaces at meeting points, for resting and to exploit scenic views • formal facilities such as seating, shelters, play areas, minor sports will be incorporated
Local park	• these will be public gardens at the heart of each neighbourhood • existing features such as trees, burns or stone walls will be integrated with the landscape of the park • there will be lawn areas for informal recreation • a mix of formal and informal tree planting will subdivide the spaces, frame views and define activity zones • formal facilities such as seating, shelter, bowling green, remembrance garden, community orchard will be incorporated

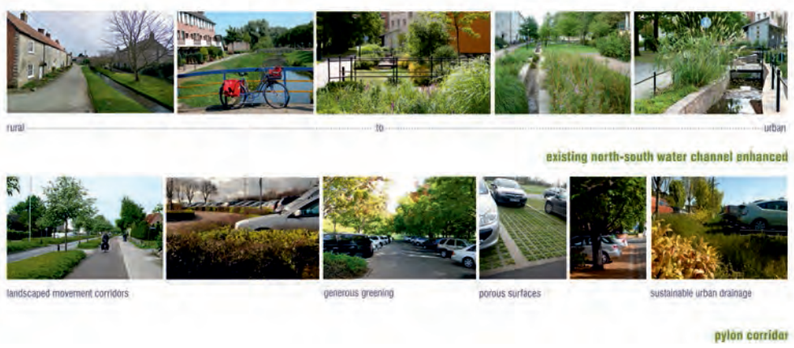


Figure 5.27b: *Watercourses:* Green corridors in urban core - exemplar images

airport, a proportionate approach will be taken in relation to the introduction and use of waterbodies.

- **Safety and security** will be promoted by applying 'Secure by Design' principles such as ensuring public open space is overlooked by built development, is appropriately lit and designed to minimise disturbance and nuisance to neighbours.

- **Lighting** will be introduced judiciously so that while key paths and public spaces will be well lit, wooded areas and wilder green spaces will be less fully lit or unlit, to minimise the impact on wildlife.

Phased Masterplans must ensure connectivity of habitats within and through the whole site. Justification and evidence will be provided to ensure that this is the case.

Framework element	Description
Civic space	• civic squares will be formal, urban spaces, usually around civic buildings • such spaces may include hard and/or soft landscaping • they will include flexible spaces for public gatherings and events • these are potential sites for civic art/commemoration features • provision will be made for parking for events
Village green	• greens are informal green spaces as focal points for individual neighbourhoods • existing features such as trees, burns or stone walls will be protected and integrated • greens will be predominantly soft, with lawn areas and ornamental trees • they will be designed for flexible use by surrounding residents
Avenue	• avenues will have formal street tree planting • trees will be planted in single or double rows, opposite or staggered • avenues may be designed with or without verges • hardy species with distinctive form and/or seasonal effects will be selected
Pedestrian green links	• the green links are pedestrian/cycle-priority links running through blocks • they will be predominantly hard with localised planting where the lane widens or where there are widenings or small squares • other greening will be provided by resident's pots/window boxes, climbers on walls, garden planting and the like
Play zone	• formal play areas will be provided • play areas will be designed to exploit the surrounding landscape character to create diverse play environments • play environments may be formal or informal and will include natural play • different age groups will be catered for, as per best practice
Sports facilities	• sports facilities will be provided, for shared school and community use
Allotments	• land will be set aside for individuals or community groups to grow their own food or flowers • such areas may include traditional allotments or community/school gardens or orchards
SUDs	• this includes infrastructure for sustainable drainage • wherever possible, SUDs features will also provide an amenity resource and/or be designed to enhance biodiversity
Edge/buffer landscape	• structural edge planting will be introduced to screen or filter views • decorative species will be selected for use along visible, developed edges • buffer planting will be designed to contribute to the composition of key views to the development • buffer landscapes will be multifunctional, incorporating suds infrastructure or paths for example, and generally designed to enhance biodiversity

5.7.4 Open space standards

Approximately 85 hectares of public open space will be provided within the Grandhome development, 40 hectares more than the minimum required by the Aberdeen City Council Open Space Supplementary Guidance.

The open space is configured as a connected network, within the site and linking to corridors beyond the site, to expand and enhance the wider Green Space Network in north Aberdeen.

There will be a full complement of open spaces designed to both support biodiversity and for the community to use for a broad range of active and passive recreation.

The scheme complies with both PAN 65: Planning and Open Space and Aberdeen City Council Open Space Supplementary Guidance.

Figure 5.28: All homes will be within a 20 minute walk from a major town park.

Proposed Green Space
Proposed Town Park

Figure 5.29: Homes will be within a 5 minute walk of children's play zones.

Proposed Green Space
Play Zone
Large Scale Play Zone

All of the categories of open space described in the SG are provided, as well as additional types of open space such as civic spaces, village greens, a major town park and local neighbourhood parks.

In light of the findings of the Open Space Audit, it has been assumed that the Grandhome development will be self-contained in terms of public open space provision. All space categories are provided for within the site at a level beyond the minimum required in the guidance except for formal sports which are partly catered for by existing neighbouring sports facilities within walking distance of Grandhome.

There are 32 hectares of Natural Greenspace and Green Corridors in Grandhome. Ultimately, the area of 'natural' landscape is likely to be greater than this, but for the purposes of the measuring exercise 'Natural Greenspace and Green Corridors' have been assumed to comprise all of the green open space excluding the town and neighbourhood parks, civic spaces, village greens, play areas, avenues/green streets, edge/buffer landscapes, sports grounds and allotments.

All types of public open space will continue to be assessed throughout the refinement of the masterplan, in terms of walking distance, size and nature, to ensure that the new community at Grandhome has convenient access to a suitable range of high quality, placed-based recreational facilities.

Several potential options for management of the public open space are currently being assessed, including those set out in the SG. The implications for long term management and maintenance will guide design decisions through all stages of masterplan development. In addition, detailed proposals for the maintenance of individual open spaces will be developed through the Masterplan process for each phase.

A tree survey and a woodland management plan will be required to be submitted as part of the detailed planning applications for each phase of development"

Figure 5.30: Neighbourhood parks are within a 10 minute walk of all homes.

Proposed Green Space
Proposed Neighbourhood Park

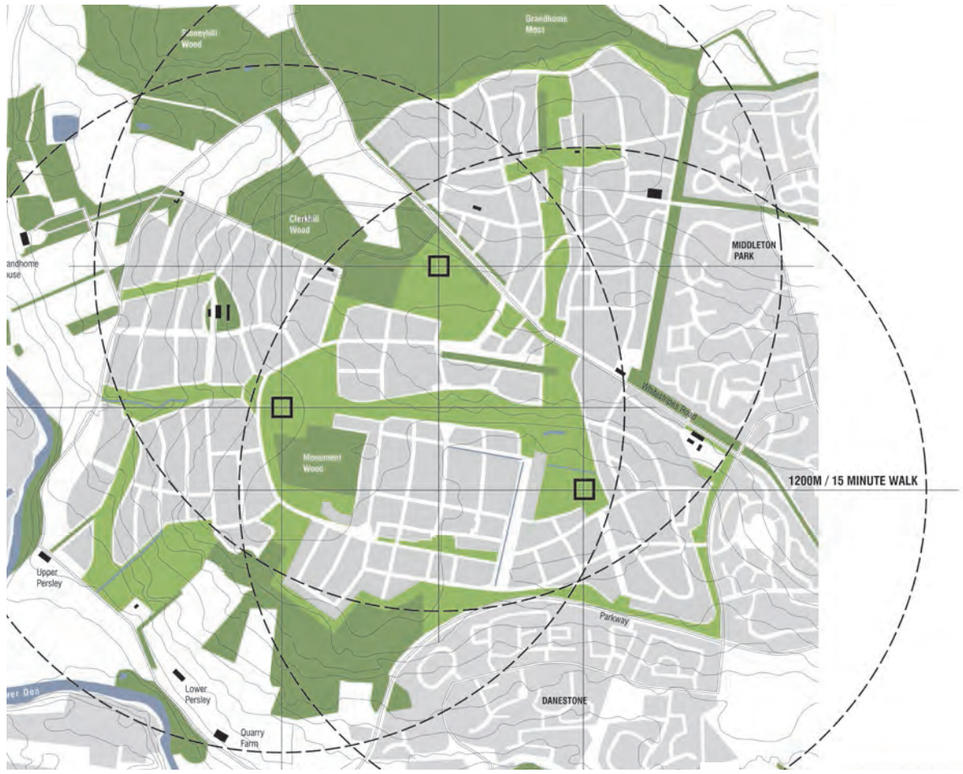


Figure 5.31: Outdoor sports are within a 15 minute walk of all homes.

Proposed Green Space
Proposed Sports Facilities

Table 5.3: Grandhome Open Space Provision

Formal Open Space	Number	Appropriate Area
Play Zone/Other Play Areas*	9 No.	4.8 Hectares
Large Scale Play Zone*	1 No.	2,500m2
Outdoor Sports Areas*	3 No.	9.5 Hectares
Allotments or Community Gardens	4 No.	2.3 Hectares
Town Park	1 No.	7.6 Hectares
Neighbourhood Parks North and West	2 No.	4.3 Hectares
Village Greens	5 No.	1.5 Hectares
Civic Square	5 No.	2 Hectares
Total Formal Open Space		32.2 Hectares

* *ACC open space categories as per ACC Open Space Supplementary Guidance

Table 5.4: Open Space Standards - compliance with ACC Open Space Supplementary Guidance

Informal Open Space				
Natural Greenspace And Green Corridors*	Within 400M>2Ha; 2000M>5Ha	1 Ha	16 Ha	32 Hectares
Other Landscaped Areas				18.4 Hectares
Total Informal Open Space				50.4 Hectares
Total Open Space				**82.6 Hectares**

*ACC open space categories as per ACC Open Space Supplementary Guidance

Path network

The path network is designed to provide a range of safe and attractive pedestrian/ cycle links within and between neighbourhoods, as well as to offer a choice of longer walking/ cycling circuits around the new development and out into the countryside beyond. Specifically, the new network will link to existing parts of the Core Paths network that approach the site, at the north and south ends of Whitestripes Avenue, and ultimately to crossing points on the Don.

- **Primary active travel paths**
  These form 'first tier' links between neighbourhoods and to key destinations outside the site. These routes link to the existing Core Paths network for example, and form links between neighbourhood centres, schools and key play areas.

  These would be segregated, all-hour, all-weather paths, Whether they run parallel to traffic routes or through green spaces.

- **Secondary paths**
  Secondary paths would extend out from the primary paths and link to secondary destinations. They may also include attractive alternatives to the primary path network that may not be all-hour, all-weather. For example, secondary paths include those running through wooded areas that may designed to complement the surrounding natural landscape by being built to a lower specification eg they may be narrower, surfaces may be more informal, or the paths may not be lit.

- **Safe Routes to Schools**
  Pedestrian routes will be designed to ensure SRS principles are complied with and considered through the Transport Assessment.

- **Vehicle-free routes through blocks**
  In places, shared-surface routes run through residential blocks providing spaces where children can play safely; these also provide convenient shortcuts for people moving through the area on foot or by bike.

  Parking will be provided at key points at the edge of the network where people from elsewhere in the city can gain access to the path network.

Figure 5.32: Proposed key paths network

5.8 Architectural Strategy

5.8.1 Housing

Each of Grandhome's neighbourhoods will feature a wide variety of housing tenures, sizes and types, including detached houses, terraced houses, cottages and flats. In terms of size, housing mix will reflect current and likely future market demand in Aberdeen by focusing on the provision of high quality family homes while catering for smaller household sizes. An indicative composition of housing mix may include the following:

One-bed	10-15%
Two-bed	20-25%
Three-bed	30-40%
Four-bed	25-30%
Five-bed+	5%

Development will span the full transect, providing high-density urban living in the neighbourhood centres and more rural family homes on the outskirts. This variety of housing will allow for a diverse group to settle within Grandhome, and enable families to then remain within the community should their household numbers or circumstances change over time. 25% affordable housing will be provided on a tenure-blind basis, including provision for the LDP required Gypsy and Traveller site (see Figure 5.8), the final site for which will be determined through the masterplanning process. The site will be designed to accommodate a maximum of six pitches.

Figure 5.33: Indicative view- Terraced houses just off the high street offer convenience and the opportunity to live in close proximity to the town centre's offices and amenities.

Figure 5.34: Indicative view- Cottages and semi-detached houses feature in the residential blocks. In this case, the houses front onto a shared garden.

5.8.2 Architectural typologies

Beyond studying street compositions, the design team also studied the proportions of building across Aberdeen, with a focus on Old Aberdeen and north Donside. The following pages detail the proportions, architectural typologies and materials studies. This workhas been used to inform the design of house types for Grandhome, which will ultimately include homes of a range of sizes, costs and styles. These homes will follow both traditional and contemporary aesthetics, but are likely to adhere to similar proportions, ensuring they sit together well as an ensemble.

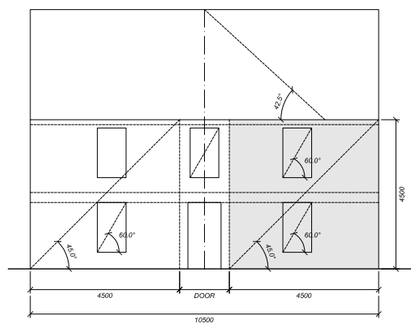
A sampling of the designers' studies can be introduced as follows:

Cluny's Port
Detached single family house

Cluny's Port is a traditional North Donside home, including both stone and brick within its façade. The house is centred on a single door and central window, with the proportions on either side forming two roughly 45 degree squares.

A Grandhome house study follows this symmetry, but moves inward slightly, with the two squares centred on the door's middle line, rather than its outer edges.

Figure 5.35: Study of Cluny's Port building proportions informing the system used in Grandhome's single family terraced houses

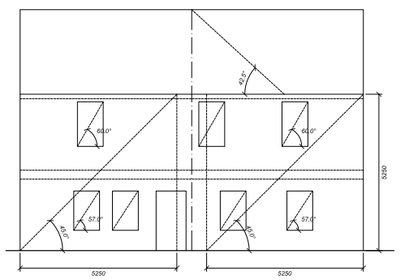


No. 88 High Street
Terraced single family house

A render, terraced house on the high street offers a contrast to the symmetrical Cluny's Port. In this case, the door remains relatively centrally placed, surrounded by two rows of windows, with different proportions on the ground and first floors. Each of these rows also takes on a different rhythm, whether clustered in pairs or independently spaced.

The design team used these proportions to generate a simpler façade: in this case, the house facade comprises two forty five degree rectangles, with its windows featuring diagonals that range between 57 and 63.5 degrees.

Figure 5.36: Study of Grant Place's cottage building proportions informing the system used in Grandhome's single family terraced houses



No. 1 High Street
Terraced single family house

This end terrace building offers another approach, featuring an asymmetrical composition of windows. The door is located on the far right, likely opening onto a hall. The windows are then of different proportions on the ground and first floors, with the first floor windows nearly matching the door in size.

Figure 5.37: Study of Old Aberdeen High Street terrace's building proportions informing the system used in Grandhome's single family terraced houses

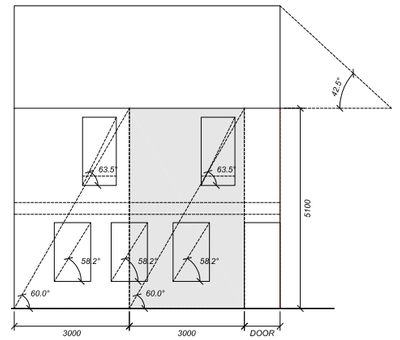
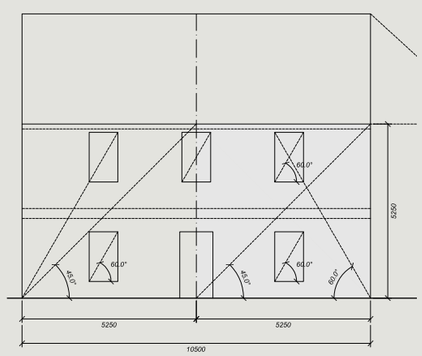
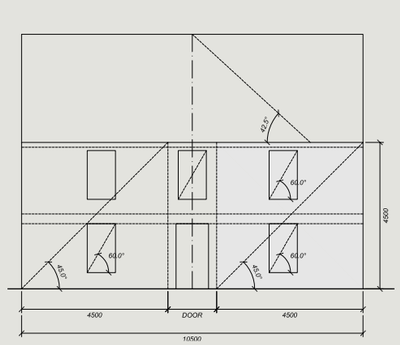
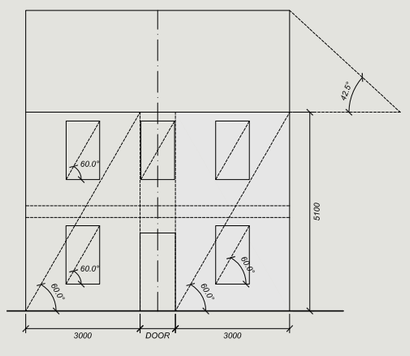


Figure 5.40: Resulting proportional studies inspiried by the local existing typologies (above).





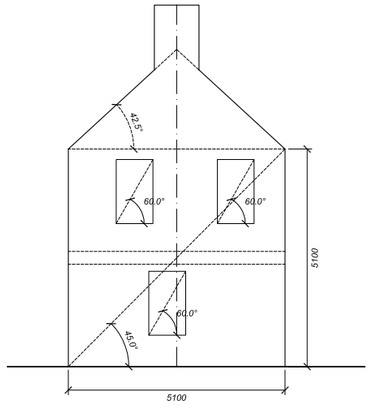


No. 91 High Street
Terraced mixed use building

This mixed use building on Old Aberdeen high street includes large windows and a strong silhouette due to its central chimney. This flexible building type is currently in commercial use, with a bank on the ground floor and a flat above. However, the building type is also suitable for flats or even a single family home.

The red tiled roof – pitched at 42.5 degrees – is characteristic of north Aberdeen. The windows are positioned at 60 degrees, and do not align between the ground floor and first floor.

Figure 5.38: Study of Old Aberdeen mixed use building proportions informing the system used in Grandhome's single family mixed use house



No. 2 Grant's Place
Semi-detached single storey cottage

This single storey semi-detached home on Grant's Place offers a model for relatively high-density development, achievable with modest homes with their own gardens. Homes of a similar type will be developed for Grandhome, and may be popular with retirees and others looking to downsize.

The home on Grant's Place features a red tile roof and a stone façade, with large, traditionally detailed windows. Tile roofs of this kind are typical of north Aberdeen, and the material will be incorporated into Grandhome.

Figure 5.39: Study of Grant Place cottage building proportions informing the system used in Grandhome's semi-detached single storey house.

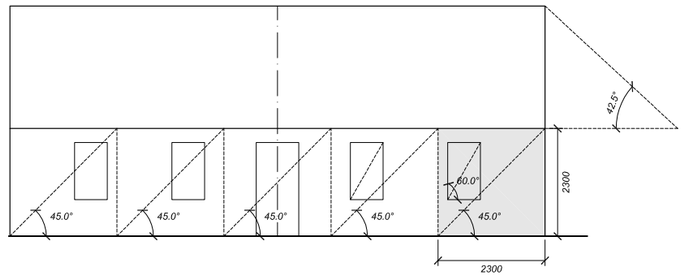
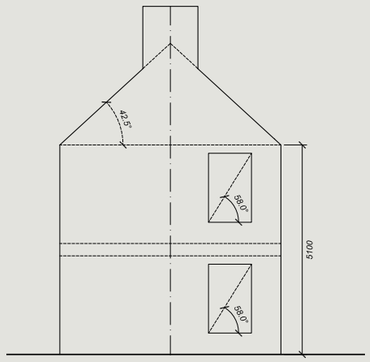
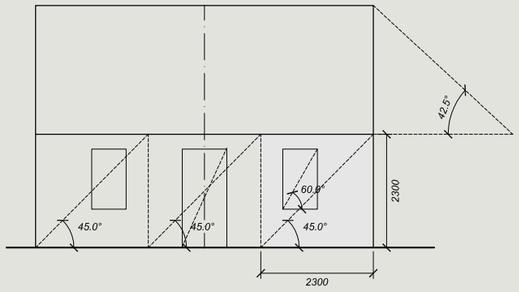


Figure 5.41: Resulting proportional studies inspiried by the local existing typologies (above).





5.8.3 Architectural Materials

The architectural materials palette is largely based upon Old Aberdeen and its surrounding area which uses a limited number of materials in a variety of different details.

Both traditional and more contemporary materials and construction methods are visible in Old Aberdeen. The public facade of the buildings tends to be more formal using dressed stone, render and slate roofs. This breaks down in the back pends and wynds, which offer a more informal, economic and clever use of materials, introducing timber, brick, or tiled roofs.

Figure 5.42: Slate roof

Figure 5.43: Tile roof

Figure 5.44: Zinc roof

Figure 5.45: Corrugated roof

Figure 5.45: Timber cladding

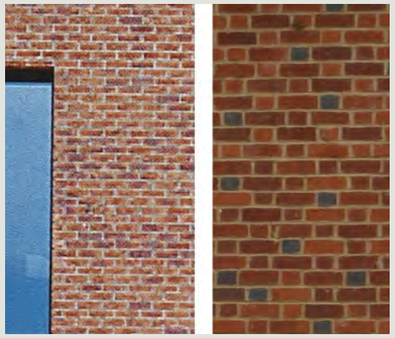


Figure 5.46: Brick

Figure 5.47: Stone

Figure 5.48: Smooth render

Figure 5.49: Rough render

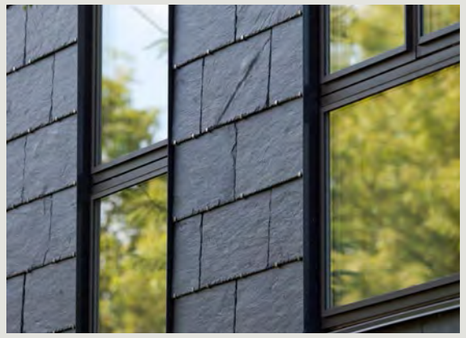


Figure 5.50: Window

Figure 5.51: Sash window

Figure 5.52: Window Surrounds

Figure 5.53: Door and side panel

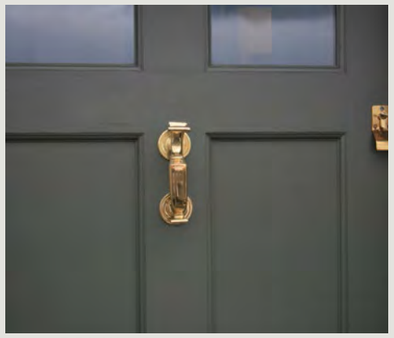


Figure 5.54: Wooden door

Figure 5.55: Wooden door

Figure 5.56: Brick detail

Figure 5.57: Traditional eave detail

Figure 5.58: Reclaimed granite and brick gable

6. Character Areas

6.1 Introduction

Drawing all the design principles together, it is possible to identify some key character areas within Grandhome. These are introduced below, with commentary on the likely design approach and development patterns. However, this information remains indicative; detailed parameters for each area will emerge through the detailed design process. Full information on the design, uses, density and building types within each area will then be articulated within each phase's Masterplan Statement, to be provided as Appendices to this Framework.

Figure 6.1: Grandhome character areas

1. High Street and Town Centre
2. Business Park
3. Whitestripes and Bonnyside neighbourhood centres
4. Community Campus
5. Hilltop Park and Monument Wood

Figure 6.2: Grandhome's high street will feature high-density retail and accommodation, with restaurants and shops on the ground floor and flats and offices above.

Figure 6.3.1: Indicative view- Grandhome's high street will feature high-density retail and accommodation, with restaurants and shops on the ground floor and flats and offices above.

6.2 Commercial Centres

6.2.1 High Street & Town Centre

Located on the southernmost portion of the site, Grandhome's town centre will be a vibrant destination for both Grandhome residents and the wider Bridge of Don community. The high street is located in this area given its close proximity to the A90 and the residential communities to the south. The town centre's shops, restaurants, offices and community buildings will thus be accessible to a wide variety of people, ensuring that the nearby residential community no longer needs to commute into the centre of Aberdeen for these amenities.

Designed around a traditional high street, retail activity is concentrated on the eastern edge of the street while a more residential frontage anchors its western end towards Monument Wood. Landscape features have been included to soften the street as well as connect a series of public spaces and squares.

Throughout the town centre, car parking is strategically shielded within the blocks, to ensure that vehicles do not visually dominate the streetscape.

The detailed access plans for the high street remain in development.

The condition of the High Street will change according to its location within Grandhome. Figure 6.3.1 and 6.3.2 depict the Town Centre condition of the High Street. As the High Street is traversed and connects to other areas, the street design will change in response to the different character areas. This will be determined through the detailed masterplanning process on a phase by phase basis. Figures 6.3.2 and 6.3.3 demonstrate two different high street characters.

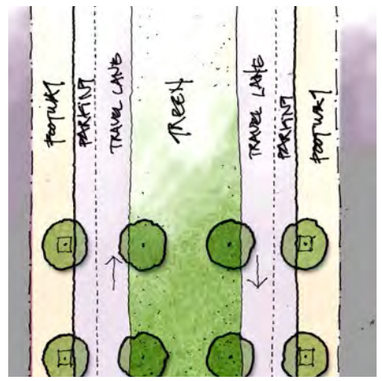


Figure 6.3.2: High Street 1
A limited distance thoroughfare connecting civic locations in the Town Centre, Bonnyside and Whitestripes neighbourhoods. It is also conceived as an elongated square which varies in width.

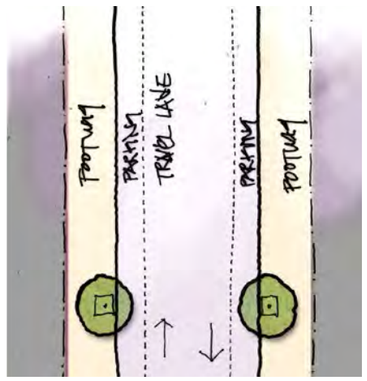


Figure 6.3.3: High Street 2
The typical section of the High Street. It is urban in character, with raised kerbs, wide variable paths with areas accommodating street furniture, parallel parking and trees in individual planting areas. The High Street is also likely to feature short term parking favoured by businesses.

Figure 6.4: A view of the Grandhome business park, from a residential green to the north

Figure 6.5: An indicative view of the Grandhome business park, from a residential green to the north

6.2.2 Business Park

Alongside substantial mixed-use development, Grandhome will be home to some business development, in line with the principles of Energetica and other initiatives in Aberdeen. Locating business development alongside a traditional high-street will ensure that workers leave their offices and use the shops and services on offer.

Large companies seeking a new or improved base in Aberdeen are likely to find Grandhome attractive due to its high-visibility location on the A90, design and housing availability. Locating within Grandhome ensures that employees can live in close proximity to their place of work, and access other amenities close to the office, such as schools, day care, shops and health facilities.

Should a company be interested in locating in this area, their detailed design requirements will be processed by the design team to ensure an optimal solution in line with overall aspirations for Grandhome.

The basic principles of the Business Park include the following:

- flexible Class 4 buildings suitable for a variety of tenants
- Car parking will be shielded from clear views, behind buildings and landscaping;
- Integration with the Town Centre will be key as well as connectivity with the settlement as a whole; Views of this area from Whitestripes Avenue and the Parkway will be carefully considered; and
- Storey heights will be up to 3 storeys unless an urban design case for four storeys in selected locations can be made.

6.3 Neighbourhood Centres

6.3.1 Whitestripes Neighbourhood Centre

Beyond the high street, Grandhome is home to a number of small neighbourhood centres designed primarily for residents. These centres are designed to be attractive and convenient to those living within walking distance, providing amenities such as shops, offices and community buildings.

One such neighbourhood centre is located in the northeast portion of the Grandhome site: the Whitestripes neighbourhood centre.

The centre is currently designed around a key community building, which faces the park and a public green. The green is aligned with small-scale live/work buildings, home to shops or offices. The green also opens directly onto a road which connects to the north/south green corridor, providing long views.

Residential streets surround the square, featuring a variety of homes, from terraces to semi-detached and detached houses.

6.3.2 Bonnyside Neighbourhood Centre

To the west of Whitestripes neighbourhood centre is Bonnyside, another small neighbourhood retail pocket. This area again features a square, bordered by mixed-use buildings, featuring offices or retail on the ground floor and flats above.

The main road running east from this square connects to a green space, running into the north/south green corridor, and eventually the Whitestripes neighbourhood centre. The square is also in close proximity to the Green Belt to the east, including the community campus' sports pitches.

6.3.3 Western Neighbourhood Centre

Grandhome's western neighbourhood centre is located at the intersection of several of the settlement's main roads, connecting the town centre to the primarily residential neighbourhoods of Cothill and Persley Brae. As the main intersection between two neighbourhoods, the western neighbourhood centre is likely to become a relatively busy crossroads for the settlement, and is thus home to a hub of shops and a central square.

The western neighbourhood centre's shops, offices and civic facilities are arranged around a square, with the civic building located at the southernmost point. Several of the mixed-use buildings are designed to stretch across corner sites, to draw visitors in and offer retailers good visibility. The square also connects to a tree-lined green corridor that extends west to the Green Belt, offering views towards the River Don, beyond the edge of the settlement.

This area is also home to a primary school, with a sports pitch located behind it. This sports pitch connects well into the town's green network, as it is adjacent to Monument Wood.

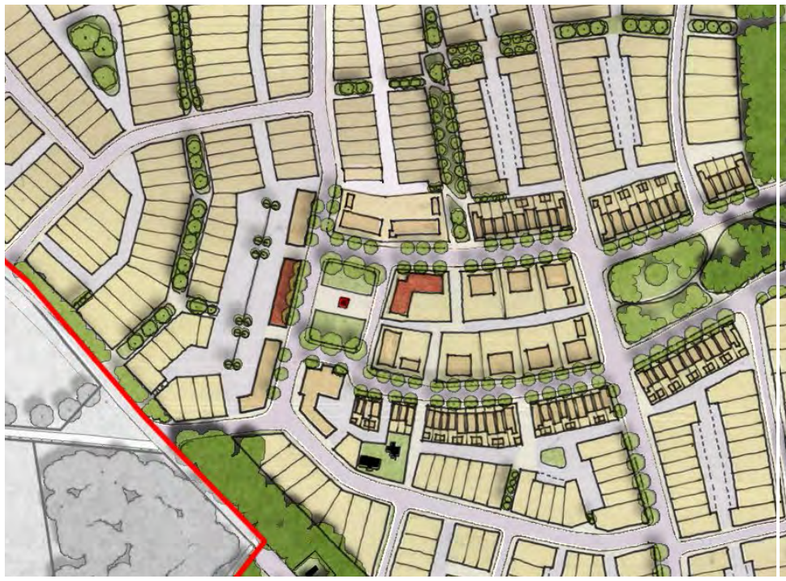


Figure 6.6: Bonnyside Neighbourhood Centre features a square surrounded by mixed-use buildings.

Figure 6.7: Whitestripes Neighbourhood Centre features a civic green, mixed-use buildings and celebrated archaeological features adjacent to the green corridors.

Figure 6.8: Western Neighbourhood Centre incorporates the existing green corridor into the civic green as the major junction in the neighbourhood.

6.4 Community Campus

Grandhome's Community Campus is located in the centre of the site, and will be a hub of activity for the settlement as a whole. The campus is home to both a primary school and Grandhome's only secondary school, alongside recreational facilities, sports pitches and a connected green network. The aim is to create a welcoming and inclusive campus, which will be attractive to both students and community members who may use the facilities outside of school hours.

The secondary school is situated in this part of Grandhome in order to be conveniently located for all students, including those living in neighbourhoods to the north and west. A primary school was then added in order to create a campus environment, in which students of different ages could benefit from proximity and some shared facilities. The site's proximity to the surrounding Green Belt also make this a convenient place for both schools, given the ample space for sports pitches.

Both the primary school and the secondary school face onto the neighbourhood centre square. To the east of the schools is a large square, which also overlooks the Green Belt. This square is lined on two sides with small-scale office buildings and shops. The square is also intended to be the central gathering area for the surrounding neighbourhood, and is scaled to accommodate community events.

Figure 6.9: A view of the secondary school, primary school and central square overlooking the Green Belt

Figure 6.10: An indicative view of the secondary school, primary school and central square overlooking the Green Belt

Whitestripes Road acts as the square's northern boundary; accordingly, the public space will be noticed by many travelling through Grandhome on this high-volume road. North of the square, Whitestripes Road will overlook the Green Belt and the school sports pitches. These facilities may also be shared by the community.

A small green link south of the secondary school also connects the sports pitches and the Green Belt to the north/south green corridor, which itself connects to the Hilltop Park and subsequently to Monument Wood and the green space along the River Don.

6. 5 Parks

6.5.1 Hilltop Park

The Grandhome masterplan is designed to follow the site's natural topography, avoiding cut and fill and adhering to the site's natural contours. Accordingly, the hillcrest that runs from east to west, in the centre of the site, was preserved for a Hilltop Park. The park will not only offer views, but also ensure that steeper portions of the site are not used for roads or residential plots.

The Hilltop Park starts at the eastern edge of the site, and widens as it reaches the site's centre. The central portion includes a water feature, which will be incorporated into the settlement's Sustainable Urban Drainage System. Paths and lines of trees crisscross the park, following the historic traces on the land. The park eventually links to Monument Wood, Grandhome's largest naturalistic park, which is adjacent to the western neighbourhood centre.

Rows of houses face onto the Hilltop Park, and the blocks behind them are largely residential. Although in the centre of Grandhome, the area will have a lower density and a quieter feel, particularly in comparison to the town centre to the south.

Figure 6.11: Hilltop Park Plan

6.5.2 Monument Wood

Monument Wood is Grandhome's most naturalistic park, and will retain its original woodland character. The park is located west of the Hilltop Park, and south of a green wedge connecting to the Green Belt. The park is also adjacent to the western neighbourhood centre, bordering the primary school. The school's sports pitches then face onto Monument Wood, offering views into the green space, with Hilltop Park in the distance.

In contrast to the more formal and picturesque spaces in Hilltop Park, Monument Wood is designed as a space for wildlife. New plantings will follow the site's historic character, and contribute to the existing woodlands landscape. The park is also designed to connect the green space south of Grandhome to the Green Belt to the north, to allow for wildlife habitats and migrations.

The park is likely to become a popular space for recreation, particularly for residents living in the adjacent neighbourhoods. The park is also likely to be used by local wildlife.

6.5.3 North/South Green Corridor

The north/south green corridor is one of Grandhome's largest continuous open spaces, running from the town centre's primary school to the very north of the site. The corridor is designed to accommodate the existing pylons, and to link with other prominent green spaces, such as the Hilltop Park. The park's size follows the setback requirements for pylons, and curves slightly to follow the natural contours of the land.

The north/south green corridor will be a series of continuous green spaces designed for different uses. Uses are likely to include play parks, allotments and sports pitches, along with traditional green spaces for gathering and relaxation. Water features, which will be incorporated into the SUDs network, will also be prominent. These many uses are intended to activate the space and provide a range of activities, drawing residents from across the settlement. More information on the specific uses proposed is within the Landscape section of this Development Framework.

These roads are located in areas where two neighbourhoods connect, including the first phase (on the southern portion of the site) and the Bonnyside and Whitestripes neighbourhood centres (to the north of the site).

6.5.4 Parkway Access

Later phases of Grandhome will see the construction of a new access point off the Parkway, south of the town centre. This area is bordered by land owned by the Grandhome Trust on both the north and south of the Parkway, meaning that it could be designed to create a distinctive gateway into the community.

This access point will route visitors directly into the town centre, where commercial plots feature high-density retail and offices, with car parking shield within the blocks. This busy commercial centre will be designed to serve both Grandhome and the larger Bridge of Don community.

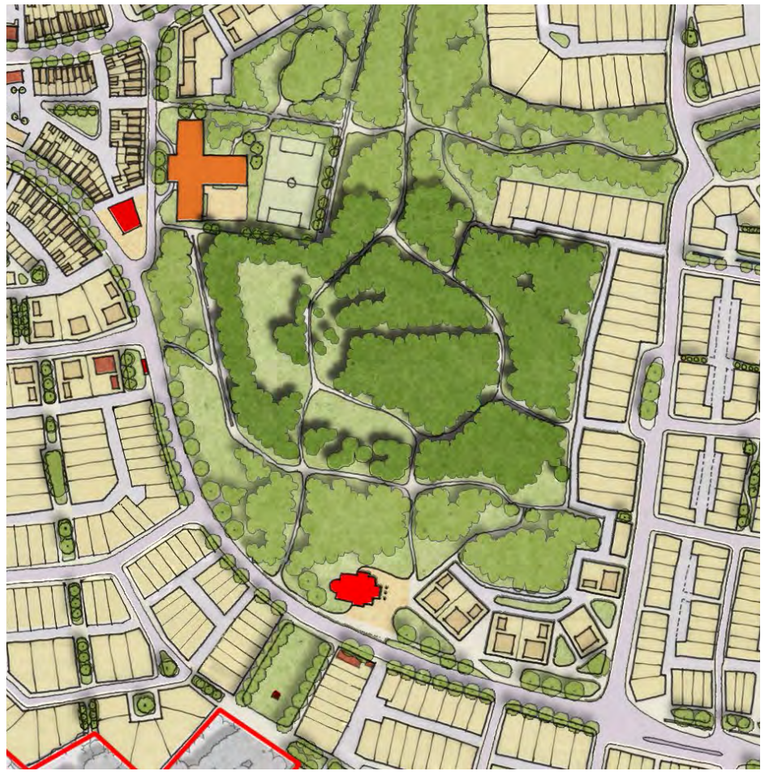


Figure 6.12: Monument Wood park

Figure 6.13: Indicative view of the Parkway access and green

7. Phasing + Delivery

7.1 Proposed Phasing of Development

Grandhome may take 30-40 years to complete and in support of the delivery of the new community, a high level infrastructure phasing plan has been prepared. The guiding principle is a balanced approach to infrastructure delivery: supporting the growing community, but ensuring that infrastructure is brought forward at a point in time it is proportionate to do so in terms of delivery costs and an appropriate level of support or demand for the infrastructure being provided.

The overall masterplan will be implemented in phases, with the first phase comprising a complete neighbourhood. The phasing strategy reflects housing allocation release phasing set out in the LDP and the delivery of the AWPR and Third Don Crossing.

Subject to a Transport Statement being prepared, the early phasing strategy has been determined in response to the following considerations:

- Delivery of the first phase is to proceed in tandem with major infrastructure upgrades,namely the AWPR, 3rd Don Crossing and Haudagain roundabout upgrade
- Second and future phases will be delivered after 2018, once this key infrastructure is in place;
- It has been agreed with both Aberdeen City Council and Transport Scotland that access should be taken from Whitestripes Avenue in advance of de-trunking;
- The first neighbourhood will need a secondary access point which in this case will be Whitestripes Road; and
- The first neighbourhood will be an opportunity to create a high quality neighbourhood with its own identity that is able to demonstrate the quality and character of future phases of Grandhome.

All of the above points to the eastern portion of the site as the first phase of development.

The proposed phasing of Grandhome is illustrated opposite. The business park will sit outside the phasing sequence and will be delivered as demand requires but is likely to coincide with the development of Phase 3.

The second phase of development will see the development of around 1,800 homes and the formation of Grandhome town centre. As the population of Grandhome grows through subsequent phases, additional demand will act as a catalyst for the development of further retail and commercial uses that will ultimately complete the full complement of town centre uses.

Indicative Neighbourhood Phasing		
Phase	**Neighbourhood**	**Approx. Units**
1	Laverock Brae	500
2	Grandhome town centre	1800
3	Clerkhill	500
4	Whitestripes/Bonnyside	1100
5	Whitestripes/Bonnyside	800
6	Persley Brae	1250
7	Cothill	1050
Total		**7000**

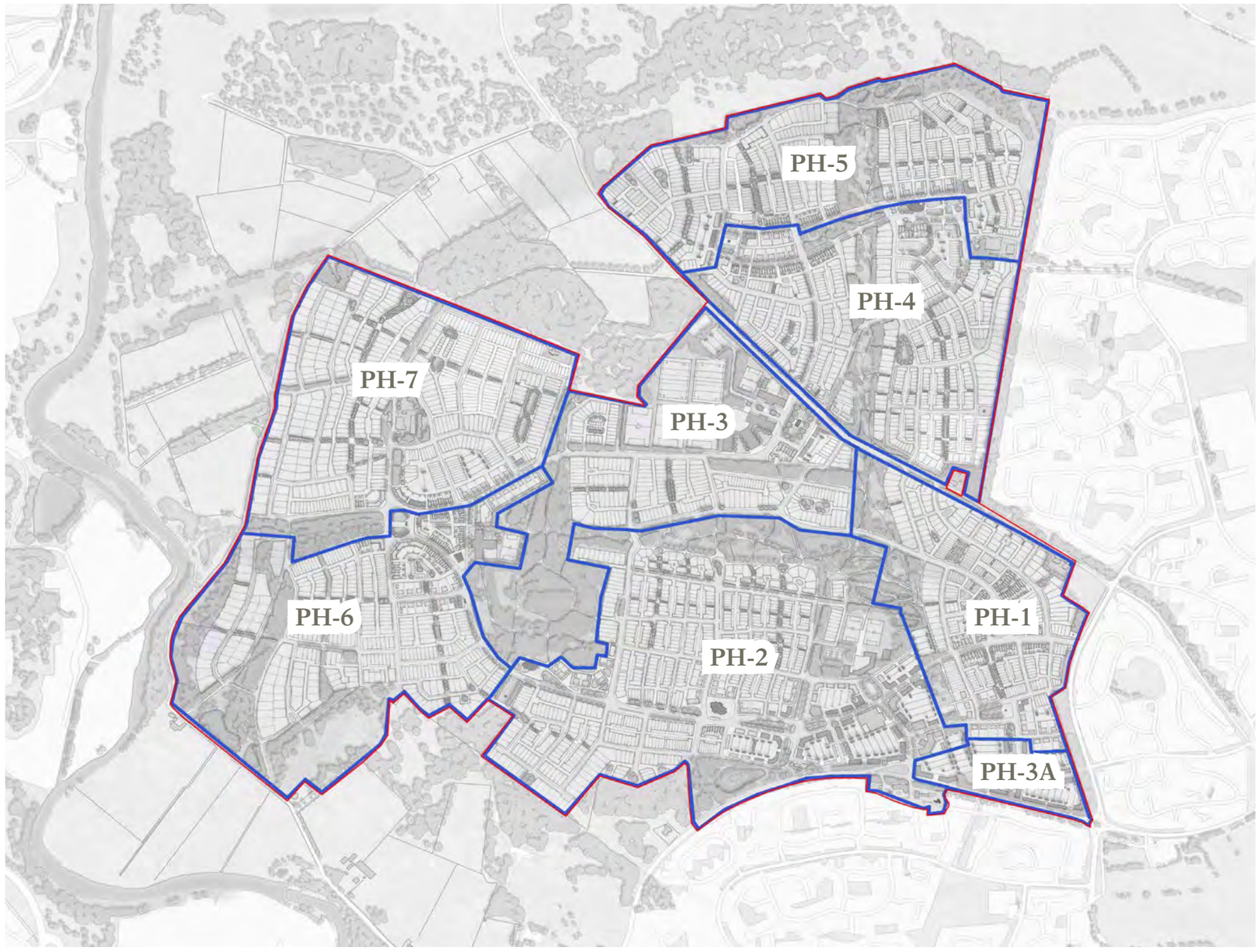


Figure 7.1: Grandhome Phasing Plan

7.2 Transport Infrastructure

7.2.1 Principles

The programme for the delivery of infrastructure is currently being discussed with Transport Scotland and Aberdeen City Council Roads through the Development Control process, and further details will be provided within the planning application documentation. However, indicative phasing of transport infrastructure is summarised below:

Pedestrian & Cyclist
One of the underlying aims of the development is to promote connectivity throughout the settlement for pedestrians and cyclists. This will be achieved by creating walkable neighbourhoods that inter-link within the site. The settlement's thoroughfare network has been designed to link with the existing pedestrian and cycle networks that run through the site specifically:

- Link to existing National Cycle Route 1 (NCR 1) located to the south of the site and any re-routing required in support.
- Formation of a strategic North/South and East/West route through the site linking to strategic routes outwith the site.
- Create links to existing core paths including those serving Denmore and Bridge of Don.
- Connections to existing housing areas.

Phase	Infrastructure
1	Whitestripes Avenue access and upgrade.
	Whitestripes Road access.
	Core paths and NCR 1 links serving Phase 1.
	Initial public bus service for Phase 1.
2	De-trunking of the Parkway. Access from the Parkway with associated highway improvement works.
2-7	Phased development of bus services in support of Neighbourhood development.
3	Secondary access point on Whitestripes Avenue to serve the Business Park.
3-4	Upgrade and additional access points on Whitestripes Road.

Where thoroughfare within the settlement link to the wider pedestrian and cycle networks they will be designed to accommodate safely cycles and pedestrians and in addition appropriate signage will be provided.

Public Transport
Public transport provisions will focus on bus services which will involve adapting and extending existing provision serving the area. Initial public transport provision is currently being discussed with the Aberdeen City Council Public Transport Unit (PTU) and public bus operators including First Bus and Stagecoach Bluebird. It is anticipated that as the settlement grows it will become viable for a commercial service to divert through the community.

Vehicular
As stated, initial interventions in support of Phase 1 will be designed to optimise the existing network to support the first neighbourhood of 450 homes. In later phases, there will be specific interventions along Whitestripes Road, including its upgrading.

7.3 Energy

7.3.1 Principles

The Grandhome Trust is committed to delivering low energy development aspiring ultimately for carbon neutral development. The sustainable energy hierarchy will be followed throughout: reducing the demand for energy, using energy more efficiently and finally providing low and zero carbon (LZC) energy through onsite generation. Given the timescales and challenges involved in delivering this vision, the Trust recognise the need to provide options which are flexible and adaptive.

An Energy Strategy has been prepared which illustrates the methodology by which carbon emissions associated with heating, cooling, hot water and power will be mitigated.

Any LZC technologies specified within the Energy Strategy will be backed up and topped up through grid supplied gas and electricity. This further allows for additional revenues to be realised through generation onto the local distribution networks.

The energy infrastructure proposals set out below are essential elements of the sustainability and carbon management framework.

7.3.2 Proposals

Energy Reduction
All dwellings will have high standards of passive design and thermal performance; those that are not connected to a district energy network, perhaps because they are located toward the rural fringe, may have their passive design features maximised and may be supplemented with micro and small-scale renewable energy generation delivered at a building integrated or block-scale. It is proposed that continual improvements in fabric and energy efficiency will be adopted and design and technology innovations be adopted over time.

Low Zero Carbon (LZC) Technologies
Small scale biomass district heating with gas back-up may be integrated into multi-occupancy dwellings and other higher density development. In later phases larger scale district heating led by gas CHP/biomass might be utilised.

Grandhome may also be served by a combination of building integrated micro-generation within the lower/medium density housing. This may include, but is not limited to solar PV, solar thermal hot water, ground/air source heat pumps or wood pellet stoves.

A feasibility study into micro-hydro power generation will be undertaken. Unfortunately engineered geothermal energy (hot rock) will unlikely be feasible at this location. Local connection to existing district heating networks will unlikely prove economically viable in this first instance.

Gas and Electricity Networks
The development will include the installation of a local Primary Substation. Discussions are on-going with SSE Power Distribution to determine the detail of the investment required to the local distribution network. It is anticipated that the substation at Whitestripes will be upgraded beyond Phase 1 with a larger capacity substation provided on-site.

A strategic 'Intermediate Pressure' gas main is located close to the site and will likely support the wider development, via one or more discreet Pressure Reducing Stations located within the site. The detailed design for the on-site distribution network and any additional upstream investment will be sought from SGN and one or more independent Gas Transporters (iGT).

Although the detailed gas distribution infrastructure design may be developed on a phase by phase basis the on-site primary gas infrastructure concept will be developed to reduce the excavation and reinstatement of adopted roads.

The existing overhead electricity pylons that bisect the site to the east will remain in situ. A buffer zone will be applied which restricts development within a 30m horizontal distance from the cable.

Waste
A single 'bring' site (mini recycling facility) may be required for every 500-2000 residential dwellings with a temporary facility provided on occupation of the 50th dwelling. Such sites can be positioned within a school, library, supermarket or public car parks etc. and do not require much dedicated space.

Residential dwellings will be provided with sufficient internal and external space for waste containers. Requirements will vary depending on the size of property (number of rooms) and will need to be compatible with the current waste collection authority's arrangements, which may change over time. It is therefore important to provide at least the minimum requirements in terms of internal and external space for containers, although the actual number, colour and design of the individual containers may change. For commercial premises, guidance specifies the capacity of required waste containers for different types of development.

7.4 Telecommunications

7.4.1 Principles

Provision of a modern telecommunications network will be vital to the success of the development.

'Scotland's Digital Future: A Strategy for Scotland' sets out aspirations for next generation broadband to be available to all people in Scotland by 2020. Grandhome will therefore provide a range of wholesale and retail 'next generation' voice, data and video services via a suitable 'next generation' fibre platform.

Grandhome is to be designed to allow easy access to telecommunications services on an 'as-required' basis; which can be one of the main attractions to developers and occupants of the development, supporting new flexible working methods including homeworking.

7.4.2 Proposals

Three telephone exchanges are located in the vicinity of the site including locations at Dyce, Bucksburn (Persley) and Balgownie (Bridge of Don). While Grandhome could be served by all three exchanges, the nearest to Phase 1 is Bucksburn Telephone Exchange.

It is anticipated that the development of Grandhome will allow BT Openreach, or any other Ofcom regulated network providers, to invest in a Fibre to the Home (FTTH) platform. BT Openreach will be asked to undertake a business case to confirm that FTTH will be introduced at Grandhome and assuming the business case will be robust superfast broadband™ speeds of up to 300Mbps will be possible. This will provide Grandhome with a very high degree of future proofing, increasing home-working and community intranet capability.

Suggested phasing for the delivery of telecommunications infrastructure is set out in the table below:

7.5 Water and Waste Management

7.5.1 Principles

Water demand is to be reduced through a demand management strategy to include low flow fittings, with grey-water recycling and rainwater harvesting where feasible and in managed buildings. The requirements for water and waste water infrastructure to service the site are being determined through discussions with Scottish Water; however the suggested requirements are set out here.

There are no foul drainage constraints (assuming the development can connect directly to the Persley WWTW).

Water Supply
Initial phases are expected to be served from Craigie Reservoir which will require the delivery of a dedicated water main. It is expected that an extension to Craigie Reservoir will be required to supply later phases of development. The LDP Action Plan identifies sufficient capacity at Invercannie and Mannofield WWTW to serve the development.

Water supply capacity and upgrade requirements will be confirmed on completion of a Water Impact Assessment and further information will be contained within the planning application submissions.

Waste Water
The LDP Action Plan identifies sufficient capacity at Nigg PFI and Persley PFI to support development. It is possible that new pumping stations may be required if any of the flow needs to be transferred from Persley PFI into the Nigg PFI catchment.
There are no foul drainage constraints. It has been agreed in principle with Scottish Water that the development will connect directly to Persley WWTW.

No network upgrades are anticipated and any future capacity upgrades of the WWTW at Persley or Nigg will be funded as growth projects through Scottish Water.

Phase	
1	Develop FTTH business case with Openreach (or other independent network provider and ensure link connectivity with Bucksburn telephone exchange)
	Extend ducted network throughout site
	Deliver 'tactical' copper and or fibre connections to each home as called off
2	Extend ducted network throughout site
	Deliver fibre to the home
3-7	Extend ducted network throughout site

7.6 Surface Water Drainage

7.6.1 Principles

The site will be drained to low-lying areas based on the existing topography in accordance with the principles of sustainable urban drainage. The discharge into watercourses from each area will not exceed the calculated greenfield run-off rates.

The basins and ponds will also contain the run-off volumes generated by critical rainfall events up to and including the 200 year, plus climate change, rainfall return event. Site levels will be set in order to prevent water entering buildings or restricting access for emergency vehicles.

7.6.2 Proposals

An outline scheme will be prepared for the Planning Permission in Principle application which will indicate how the above surface water drainage strategy can be delivered. This will include identifying how attenuation capacity can be accommodated within the site. Consideration will be given to topography and existing drainage features within the site as well as the proposed locations of development.

SUDs features will be phased in support of the various development phases. Their use within streets will only be considered where this is appropriate to the design and urban character of the specific street.

7.7 Education

7.7.1 Principles

The aspiration for Grandhome is to make an education offer which meets the requirements and expectations of every member of the community. All schools in Grandhome will offer high quality facilities to support learning for all ages. A key aspect of the proposals will be the creation of a Community Campus that will bring all learning together in the new community.

Schools will be an important component of the settlement's neighbourhood structure, and are designed within mixed-use centres which offer complementary uses to parents and students.

7.7.2 Proposals

There will be a requirement for the phased delivery of up to three twin-stream primary schools and one secondary school. The exact timing of these new school places is being discussed with the Council and further details will be available within the planning applications.

Until the delivery of the first primary school in phase 2, children will utilise one or more of the surrounding schools. Similarly, existing secondary schools will be utilised until on-site provision is made.

Primary Schools
Each primary school will be positioned in such a way as to allow children from more than one neighbourhood to join the school. In this way the schools themselves will act as 'bridges' helping the forming of new friendships in the community.

Secondary Schools
The secondary school will be one of the largest and most important community buildings in Grandhome. Everybody in the community will have access to indoor and outdoor sporting facilities plus opportunities for suitable community uses. The secondary school will be located at the Clerkhill neighbourhood centre and will serve as a Community Campus. It will include school buildings, which also serve wider community needs, as well as specific buildings and facilities dedicated to community use. The secondary school will expand as the development progresses and pupil numbers grow. The precise catchment of the school will also need to be agreed with the Council. More community uses will be added as Grandhome grows and matures.

7.8 Community Infrastructure

A key principle of the new settlement is to provide all of the facilities and services necessary for residents' daily needs. To this end, Grandhome will accommodate not only shops and restaurants, employment and schools, but also social and community facilities such as community centres and GP surgeries.

The provision of social and community facilities is considered by Grandhome to be essential to delivering a sustainable new community not only as it further reduces the need for residents to travel outside the settlement (reducing the reliance on vehicular travel and thereby carbon emissions) but also because they facilitate community cohesion by providing a space for social interaction.

Phase	Infrastructure	Delivery
1-7	Site for Community Building	Community
2-6	Local health facilities including dentists and community pharmacy	NHS Grampian/Grandhome
2	Library	ACC
	Primary School	Grandhome Trust/ACC
3-4	Primary School	Grandhome Trust/ACC
6	Health Centre	NHS Grampian/Grandhome
	Primary School	Grandhome Trust/ACC
7	Academy	Grandhome Trust/ACC

7.8.1 Proposals

Community Facilities
Although the schools will be the centre of community life, it is proposed to provide sites for other community uses within each neighbourhood. These are as yet unspecified but can be developed to meet the future requirements of the Grandhome community (e.g. places of worship).

With the proposed primary and secondary schools hosting community uses and activities there will be sufficient community space and facilities available in advance of the development of the community sites.

The main community sporting facilities and library will be delivered on the Community Campus during later phases. Further detail in respect of the delivery of facilities is set out in the table above, although the exact phasing of facilities will be determined through the planning application.

Neighbourhood recycling points will be available across the site and will be easily accessible for residents and recycle vehicles.

Doctor's Surgery, Dentist & Pharmacy
The provision of new health services is line with requirements of the LDP Action Plan and feedback from local health providers. The LDP Action Plan has identified the need for a 16 GP Health Centre within the site, which will include four GP's from an existing Practice. Two six chair dental surgeries shall also be included, alongside four community pharmacies.

The health centre will be located within the town centre and will provide accommodation for a range of health services. It is anticipated that the centre would be built in the later development phases but its location permits early delivery if required. In the interim it is expected that health providers could occupy accommodation provided in some or all of the neighbourhood centres.

Similarly dentists and pharmacists would be able to occupy suitable business premises within the town and neighbourhood centres.

7.9 Open Space and Green Infrastructure

7.9.1 Principles

Grandhome will benefit from an extensive open space and green network incorporating a wide range of formal and informal green spaces across the site. Parks, green spaces and play areas will also be constructed in stages, linked directly to the relevant phases of residential construction.

Consideration has been given to policy requirements for open space with the aim of supporting a wide range of recreational opportunities. The following table sets out details about the types of open space that will be provided with the masterplan.

The delivery of open space will be phased to ensure that the recreational needs of residents are met as the development grows.

Undeveloped areas including existing wood land and areas of green space of ecological value will form a green network through site. This will include a linear park that runs from the north of the town centre to the southern boundary of the site and will serve as a wildlife corridor.

7.9.2 Proposals

Open space will be provided within each phase of development however the level of provision will vary. In total, Grandhome will provide approximately 87 hectares of open space comprising a range of open space and outdoor amenity areas as described in the table below.

Phase	Infrastructure	Delivery
1-7	Meadow and parkland	Grandhome Trust
	Local park including amenities (each neighbourhood)	Grandhome Trust
	Village green	Grandhome Trust
	Play zones	Grandhome Trust
	Allotments	Grandhome Trust
	Suds	Grandhome Trust
	Edge/buffer landscape	Grandhome Trust
2, 3-7	Civic space	Grandhome Trust
2, 3, & 7	Sports facilities for shared school and community use	ACC
3	Town park	Grandhome Trust

7.10 Development Management

7.10.1 Planning Process

This Development Framework sets out a coherent, long term plan for the new community of 7,000 homes and associated employment and commercial facilities, irrespective of the timing of land releases beyond 2026.

Applications for Planning in Principle for 4,700 homes at Grandhome, and the detailed proposals for the first phase of up to 450 homes, will come in early 2013. The 4,700 homes will be designed as a sustainable and cohesive community in its own right, with the capacity to absorb the third tranche of development when this is released through a review of the LDP.

Similarly, the first Neighbourhood at Whitestripes, which will come forward ahead of the AWPR and third Don crossing, has been considered as a potential entity in its own right. The neighbourhood-based approach underpinning Grandhome, allows each phase to have a clear identity and sense of place, even if the full range of infrastructure and services have yet to be provided either because of a lack of critical mass or because that infrastructure lies in future phases.

A Masterplan in support of Phase 1 is currently under preparation and will support the detailed planning application.

7.10.2 Current Status

A Proposal of Application Notice was submitted to Aberdeen City Council on 2 October 2012 which instigated the pre-application public consultation process. As discussed in Section 4, a public exhibition was held on 30-31 October 2012 which met statutory requirement for ‘major development’ applications.

The Development Framework and neighbourhood masterplans will be developed by the Grandhome Trust and following pre-submission consultation, will be formally consulted upon by Aberdeen City Council. The Grandhome Trust has already placed the draft Development Framework at the heart of its October 2012 consultation and will continue to consult, particularly with Community Councils in support of the Development Framework and Masterplan process.

All planning applications will be subject to pre-submission and statutory consultation processes in the usual way.

7.11 Summary

A summary of infrastructure requirements and its delivery and phasing is outlined below. This reflects the requirements as set out in Appendix 3 of Aberdeen City's LDP: 'Infrastructure Requirements for Masterplan Zones'

Phase	Infrastructure	Delivery
1	Whitestripes Avenue access and upgrade.	Grandhome Trust, ACC
	Whitestripes Road access and upgrade.	Grandhome Trust, ACC
	Core paths and NCR 1 links serving Phase 1.	Grandhome Trust, ACC
	Meadow and parkland including play zones.	Grandhome Trust
	Gas main connection	Scottish Gas
	Small scale biomass or CHP	Grandhome Trust or MUSCO
	Upgrade existing Whitestripes sub-station	Scottish Power
	Public Transport Service Diversion	Grandhome Trust, Bus Operators
	Connection to Bucksburn Telephone Exchange	BT
	Fibre-optic connection (broadband)	BT
	Water Connection to Craigie Reservoir	Scottish Water
	Connection to Persley WWTW	Scottish Water
1-7	SUDs scheme appropriate to each development phase.	Grandhome Trust, SEPA, ACC
2	Grandhome Primary School and sports facilities	Grandhome Trust, ACC
	Library	ACC
	Site for Community Building	Community
	Local park including play zones, and allotments.	Grandhome Trust

Phase	Infrastructure	Delivery
2	Civic square/village green	Grandhome Trust
	Upgrade of Craigie Reservoir	Scottish Water
2-3	De-trunking of Parkway. Access from Parkway with associated highway improvement works.	Grandhome Trust, ACC
2-6	Local health facilities including Health Centre, Dentistry & Pharmacy	NHS Grampian
2-7	Public Transport Strategy delivered in support of Phasing plan.	Grandhome Trust, Bus Operators
	Installation of a larger capacity substation on-site.	Scottish Power
3	Secondary access point on Whitestripes Avenue to serve the Business Park.	Grandhome Trust, ACC
	Clerkhill Primary School and sports facilities	Grandhome Trust, ACC
	Site for Community Building	Community
	Neighbourhood park	Grandhome Trust
3-4	Additional access points on Whitestripes Road including upgrades	Grandhome Trust, ACC
4	Neighbourhood park	Grandhome Trust
5	Neighbourhood park	Grandhome Trust
6	Neighbourhood park and allotments	Grandhome Trust
	Cothill Primary School and sports facilities	Grandhome Trust, ACC
7	Grandhome Academy and sports facilities – merge with Clerkhill Primary School to form Clerkhill Community Campus	Grandhome Trust, ACC
	Neighbourhood park	Grandhome Trust

Appendix I: October 2012 Consultation Information
Grandhome Preview Presentation. Minutes

Client	Grandhome
Title	Preview Presentation
Date	29 October 2012
Time	6.30-8.30pm
Location	Mains of Scotstown Inn, Bridge of Don
Minutes taken by	SG

1	**Preview Presentation and Q&A Session** The exhibition preview and presentation was arranged by the Grandhome Trust to provide a progress update on the Masterplan and Development Framework for the proposed development at Grandhome subsequent to the site being formally allocated in Aberdeen City Council's Local Development Plan as a strategic development site. The process and timescales leading up the submission of both the planning permission in principle for 4,700 units and the full planning application for phase 1 of up to 450 units were also set out, with both applications anticipated to be submitted to Aberdeen City Council for consideration in March 2013. **Presentation** Following introductions, the masterplanning and consultation process to date was summarised, explaining the evolution of the masterplan leading up to its current position. An overview of the draft Development Framework was provided which is due to be submitted to the Council and to the Community Councils later this year. With regard to the Infrastructure and Delivery it was noted that the AWPR and Third Don Crossing, as things currently stand, are both committed projects. The intended programme is to deliver a small number of houses in 2015 (450 or less), subject to detailed transportation analysis, and no more until committed road infrastructure was delivered. In addition to transport infrastructure and sustainable transport measures, other infrastructure such as schools, health and community facilities would be phased in to support the houses and deliver the over-arching vision of a balanced community with adequate services to support itself as well as the wider Bridge of Don area.
2	**Q&A Session** Following the presentation, the floor was then opened to questions with the following clarifications provided by the Team. • <u>Rerouting of pylons underground</u> Work is currently underway to determine the cost and feasibility of rerouting the pylons underground although this is unlikely. The green corridor is being reviewed to help manage views from adjoining proposed streets by designing out long vistas. • <u>Renewables</u> Energy consultants have been appointed and all appropriate methods of renewable energy sources will be investigated, including biomass, hydro power and PVs. District heating systems are also being considered. • <u>Whitestripes Road</u> (access & surrounding amenities) It was clarified that access to the site will be taken from Whitestripes Avenue with a secondary access onto Whitestripes Road. The precise access points will be determined through further design work. The speed limit on Whitestripes is likely to be 30mph. Options for crossing facilities on Whitestripes Avenue and segregated network of pedestrian/cycle ways are being developed, as well as links to existing core paths. It is expected that the additional housing and amenities introduced in this part of Grandhome will reinforce the local businesses within the area.

2	• Sustainable Urban Drainage Systems (SUDS) The blue areas on the masterplan were confirmed as potential SUDS locations, however not all will have water. The Airport may have some concerns regarding larger areas of water which will attract birds. • Access from the Parkway It was confirmed that access from the Parkway is unlikely to be delivered until the AWPR is brought forward. Pedestrian access across the Parkway would be delivered as part of this junction. • Medical Facilities The existing three medical practices serving the Bridge of Don area were identified as being nearly at capacity. Space for a satellite surgery will be provided within the early stages of the development. The provision of a central facility with the ability to expand as required was also discussed and will be considered. Care homes for the elderly will be in the town centre and will be brought forward at the appropriate phase, with the impact on existing and new medical facilities fully considered. Further discussions with NHS Grampian and local surgeries will continue to take place. • Housing Mix & Affordable Housing The exact housing mix is still to be determined, however a variety of house types and sizes will be delivered including smaller units (1/2 beds) as well as larger family units allowing people to down-size as well as up size within the community. 25% of homes would be affordable and a 'pepper potting' approach will be adopted throughout the development. • Cycle Lanes The majority of streets within the development will be designed to ensure speeds of 20mph or less meaning they will feel comfortable for cyclists without the need for segregation. • Safety & Street Design Discussions with the Police around the permeable street design will take place. • Public Transport Network Both the local and strategic links are being looked at and discussions will take place with the Public Transport Unit and the two main bus operators in the area. Discussions will also take place with smaller scale operators. A bus could potentially come up Whitestripes Avenue from Balgownie Road, similar to the current service which connects with Danestone. Long term aspirations to reopen Persley Station were noted.

2	• Town Centre & Retail The exact phasing for the development is still to be confirmed but if construction of the Town Centre was to follow Phase 1, it would likely come forward beyond 2018. Some retailers have already been in touch with the Trust asking about future units. The Trust is keen to provide unique start up business opportunities. Developments such as Poundbury are being used as best practice examples, where retailers and businesses are given small units to start with but as they grow are accommodated within larger units to match demand. This approach will be reinforced through urban design to create a sense of place which develops its own identity and is a place where people want to go and spend time. The requirement for community facilities/community hall was noted during discussions.
3	The Q&A session ended at this point. Attendees were thanked for attending and were asked to encourage other individuals to attend the public exhibition which would display the exhibition boards over Tuesday 30th and Wednesday 31st from 12.00 – 7.30pm both days.

Appendix II: October 2012 Public Consultation Feedback and Masterplan Responses

Theme	Comment	Response
Current Infrastructure	Concern over the impact of Grandhome on the existing road infrastructure, with comments suggesting that development of the scale of Grandhome should not be brought forward until a combination of the AWPR, the 3rd Don Crossing and the Haudagain Roundabout improvements are in place.	The importance of strategic infrastructure projects as a means to improving the condition of Aberdeen's road network, allowing future development to come forward, is fully recognised by the Trust. However, the Transport Assessment will determine how Phase 1, of up to 450 units can be brought forward before these strategic upgrades are delivered, with localised improvements to facilitate this level of development. This approach has been agreed with both Transport Scotland and the Roads Authority.
	Concern over the capacity of the Parkway to accommodate more traffic without upgrading to a duelled carriageway.	See above.
	Several attendees noted that Whitestripes Road would require upgrading if it is to safely accommodate the volume of traffic anticipated to be generated by the new development.	Both Whitestripes Avenue and Whitestripes Road will be upgraded in support of development.
	Some concern over access to phase 1 initially from Whitestripes Avenue, as this presents a risk in terms of traffic increase on a road used by school pupils to walk to school.	The access strategy for the masterplan will see an initial access taken from Whitestripes Avenue to serve the first phase of development. As this phase comes forward the character of the road will naturally change and speeds will reduce. Safe routes to schools are actively being considered as part of this process.
	New vehicular bridge to Stoneywood/Dyce was desired by some.	A non-vehicular bridge crossing the Don has been identified at Farburn.
Transport	Concern over additional demand on existing bus services.	Initial discussions with First Aberdeen and Aberdeen City Council Public Transport Unit, and also with Stagecoach Bluebird, have informed the strategy for phased expansion of services to serve the development.
	Need to accommodate potential bus routes (wide roads) that are sustainable.	See above.
Community services and facilities	Request for community facilities with specific reference to a community cinema and community hall.	A number of sites throughout the masterplan have been identified as locations for civic buildings. All schools are envisaged to be community use, particularly the academy which is located on a community campus. This dual use campus is designed to be used by both students and residents, offering a variety of related community facilities including a nursery, library, leisure centre and sports pitches. A site for a small cinema / theatre has been included within phase 2, the Town Centre.
(cont. Community services and facilities)	Concern voiced over the sustainability of cinemas/ local shops. Example provided of shops in many of the housing estates are in poor repair and these areas only serve as meeting places for unruly youths, e.g., Lochee near the old mill in Dundee.	The masterplan has been specifically designed to place commercial facilities in sustainable locations, with good footfall and natural surveillance.
	Bridge of Don needs a town centre suitable to the size of the entire area and not just the new development. This would create a feeling of joined up planning.	Grandhome Town Centre is located in the south eastern portion of the site given its close proximity to the A90 and the residential communities to the south and wider Bridge of Don area.
Open Space and Play areas	Request for provision for pro-rugby ground, possibly combined with football etc. Aberdeen has nothing at present. It was suggested that SRU would endorse this.	The primary schools and Academy include community sports pitches.
	Suggested that water bodies would need careful thought so that they so not deteriorate as other have e.g. loch at Denmore Park. Noted that water bodies can have an impact on home insurance costs.	Water bodies on site are considered to be an advantageous feature within the masterplan. Detailed design work will ensure that sufficient mitigation measures are provided in terms of potential flooding or safety issues.
	More green space is needed for the whole of Bridge of Don.	The masterplan provides an extensive network of greenspace within the developed area which connect to areas beyond the boundary. The network includes the prime north-south link between Clerkhill Wood, Monument Wood and Persley Wood indicated in Aberdeen City Council's LDP, while more than double that quantity of greenspace has been added, with additional green corridors spreading towards the west and east, and linking to another major greenspace corridor running north and linking to Grandhome Moss.
Housing	Housing mix to include detached bungalows.	Each neighbourhood will feature a wide variety of housing tenures, sizes and types, including detached houses, terraced houses, cottages and flats. The exact housing mix will be developed through the masterplanning process.
	All houses/flats should have a minimum of 2 car parking spaces each.	Parking will be incorporated in the masterplan in line with the principles set out in the Development Framework.
General comments	Well-presented, well-considered scheme. Good theory on urban design, if implemented fully, could be exemplary. Anticipating exciting developments when the actual architecture is revealed.	Thank you.

Appendix III: 5.2.1 Contextual Analysis Definitions

Definitions referenced in the Public and Private Frontage Tables set out within 5.2.1 Contextual Analysis, investigating Aberdeen precedents guiding the Grandhome Transect.

Plot width: the length of the principal frontage line of a plot.

Plot coverage: the maximum area of a plot which may be occupied by a structure. Plot coverage is expressed as a percentage. Arcades, open porches, decks, terraces and stoops are excluded from the calculation.

Edge garden building: a building that occupies the centre of its plot with setbacks on all sides.

Side garden building: a building that occupies one side of the plot with the primary open space on the other side.

Rear garden building: a building that occupies the full frontage line, leaving the rear of the plot as the sole garden.

Non garden building: a building that occupies the boundaries of its plot. This is the most urban of types, as it is able to shield the private realm from all sides while strongly defining the public thoroughfare.

Principal building: the main building on a plot, usually located towards the frontage.

Outbuilding: an accessory building, usually located towards the rear of the same plot as a principal building, and sometimes connected to the principal building by a back building.

Backbuilding: a single storey structure connecting a principal building to an outbuilding.

Front setback: the distance between a frontage line and a facade. This distance is given as a minimum or as a requirement. Open porches, balconies, stoops, chimneys and bay windows are permitted to encroach into the front setback.

Side setback: the distance between the side plot line and an elevation of the building with the exception of roof overhangs. This distance is given as a minimum. Open porches are not permitted to encroach on the side setback.

Rear setback: the distance between the rear plot line and any portion of a principal building. This distance is given as a minimum. A back building and an outbuilding are permitted to encroach the rear setback.

Frontage: the area between a building facade and the vehicular lanes, inclusive of its built and planted components. Frontage is divided into private frontage and public frontage.

Garden and wall: a private frontage wherein the facade is set back from the frontage line.

Shallow: a private frontage wherein the facade is aligned close to the frontage line with the building entrance at path grade.

Forestoop: a private frontage wherein the facade is aligned close to the frontage line with the ground floor elevated from the path for privacy, with an exterior stair and landing at the entrance.

Forecourt: a private frontage wherein a portion of the facade is close o the frontage line and the central position is set back.

Terrace or light court: a private frontage type that is a below-grade entrance or recess designed to allow light into basements.

Shopfront: a private frontage conventional for retail use, with substantial glazing and an awning, wherein the facade is aligned close to the frontage line with the building entrance at path grade.

Gallery: a private frontage conventional for retail use wherein the facade is aligned close to the frontage line with an attached cantilevered shed or lightweight colonnade overlapping the path.

Residential: premises available for long term human habitation by means of ownership and rental, but excluding short term letting of less than a month's duration.

Lodging: premises available for short term human habitation, including daily and weekly letting.

Office: premises available for the transaction of general business, but excluding retail sales and manufacturing.

Retail: premises available for the commercial sale of merchandise and prepared foods, but excluding manufacturing.