# p & h



### Design and Access Statement Hobart Close

July 2013

This design and access statement has been produced by URBED and Marsh Grochowski Architects with input from Eco Design on behalf of William Davis, Asra Housing Group and Blueprint Regeneration to be submitted as part of the planning application for a development proposal in the Meadows.

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www.urbed.coop/projects/pitcairn-and-hobart



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### P&H 1 > Introduction

This Design and Access Statement has been prepared by URBED with input from Marsh Grochowski Architects in support of a planning application for a residential development on land in the Meadows in Nottingham.

This report contains information for three separate planning application as listed below.

- > A Detailed Full Planning Permission Application for the construction of a total of 33 houses at Hobart Close
- > A Detailed Full Planning Permission Application for the construction of a total of 35 houses at Pitcairn Close.
- > A Detailed Full Planning Permission Application for the construction of a total of 5 houses at Wilford Crescent West.

Thee three sites have been developed and designed as one masterplan, and much of the information produced applies to all three sites. The plan to the right shows the 3 sites, all of which have separate planning applications. Chapters 1-6 refer to the overall masterplan. Chapter 7 will be specific to each site. The purpose of this document is to set out the principles that lie behind the proposals and it should be read in conjunction with the application drawings and the following supporting documents:

- > Statement of Community Involvement URBED
- > Transport statement Travis Baker
- > Tree survey SLR Consulting (via William Davis)
- > Energy statement Eco Design (via William Davis)
- > Site investigation stage 1 report Millward
- > Unit mix appraisal ASRA
- > Employment and training ASRA

As a place to live the Meadows has considerable advantages, abutting the city centre at one end and the River Trent at the other. It is close to major employment areas, is only a short walk to high frequency bus routes and the transport nodes of Nottingham Railway Station, the bus station and soon it will have two tram stops which will provide high frequency services north and south of the City. It is also an area with a great sense of community and a pioneering energy partnership but also many challenges.

Whilst the Meadows has many advantages it also has high levels of unemployment and generally low educational achievement. Our design ambition is high, but realistic in terms of expected property values. Environmental sustainability is core to what we do and part of our scheme will incorporate key elements of Passivhaus housing design principles, and Blueprint's post-occupancy housing research with the University of Nottingham at Green Street will inform our design response. This will be continued within this scheme.



This section sets out the context for the overall masterplan looking at the historic background of the area and urban form and then looks at connections the site has, the local amenities and community facilities. This will help place the development in context.

#### **Site Location**

The site is located directly south of Nottingham City Centre, within a mile of Nottingham railway station and within one and a half miles of Old Market Square. The site lies within the Bridge Ward of Nottingham City Council, in between the 'New Meadows' to the west and the 'Old Meadows' to the east, on the north banks of the river Trent.

### **Site Description**

The site housed the 'Cross Wall' flats. 42 of these flats were built on the site by the council in the 1960s and 1970s as social housing. The council decided to demolish the flats in 2012 as the cost for their maintenance would be too expensive, their design and layout were becoming less suitable for modern living as well as being unpopular with tenants. A tender was put out to teams of developers to put forward their ideas for the site and our team was selected to bring forward its proposals.

### **Historic Development**

A figure ground, which is a map showing buildings against a white background, has been used to help compare development in the area over time. It is a useful tool as it emphasises the layout and density of buildings. The three figure ground maps on the next page show development in the Meadows through the 19th and 20th centuries. A large part of development took place at the beginning of the 20th century, and the majority of these new buildings would have been Victorian terraces, lying along traditional linear streets. These would have been similar to the terraces east of the site which are still standing today. It is usually the case that these type of streets are easier to walk through for pedestrians as they are straight and navigable.

### **Urban Form and Density**

Comparing the 1937-1940 figure ground with the present day map below, we can see that more modern housing on the site and to the west (the new Meadows), which was built in the 1960s and 70s follows a completely different layout. The short linear streets have been replaced with cul-de-sacs and curved roads, connected by a series of footpaths.

The previous density of the site, when there were 42 flats, would have been around 30 units per hectare. Whereas the terraced streets built to the east of the site are closer to 90 units per hectare.

This suggests that land is not being used as efficiently as it could be in the context of a growing population and increased demand for housing in the area.



1884-1892

1915-1924

1937-1940



#### **Road Hierarchy**

The map on the following page shows the road hierarchy in the area. Primary routes and secondary routes feed traffic into tertiary routes which provide access into residential areas. The streets shown in brown are cul-desacs, which limit access

The Broadway shopping high street, which lies north east of the site has been shown in pink. This is a purpose built pedestrianised parade and provides local shops and services within walking distance of the site.

From the map we can see that routes across the Trent river are limited close to the site, however there is a pedestrian bridge across the river west of the site. The new tram line, NET phase 2 will travel across this bridge, connecting both sides of the river Trent.

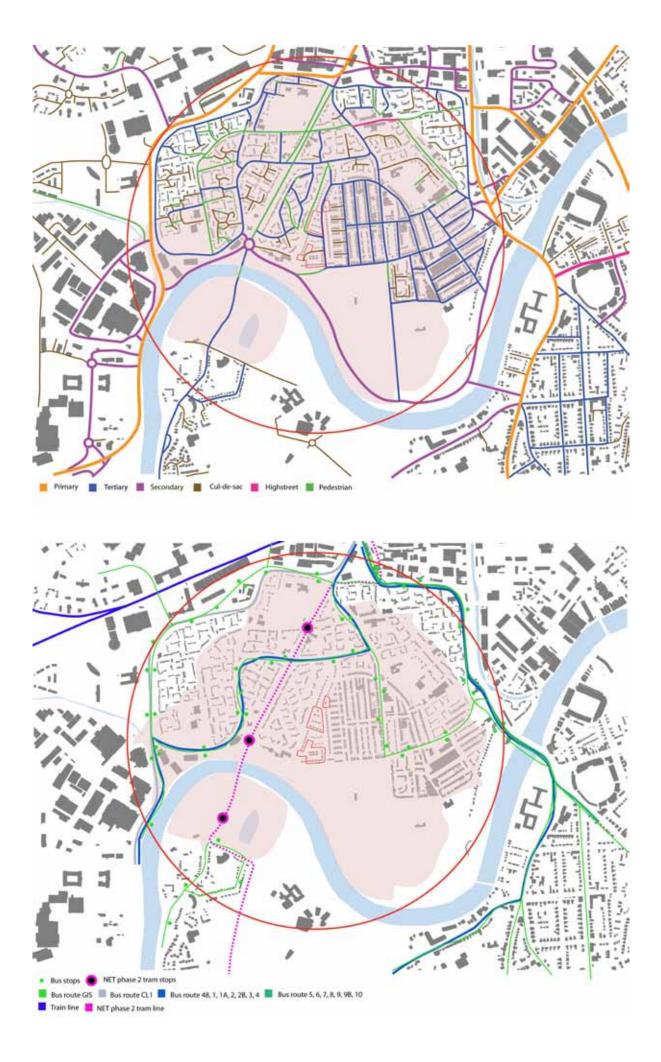
#### **Public Transport**

The two plans to the right explore the wider connectivity of the scheme. On both plans the red circle is drawn at 800m or a ten minute walk around the site. The pink area on the upper plan is the actual 10 minute walk isochrome around the site taking into account streets and footpaths. This shows that the Bridgeway local retail centre is within 10 minutes of the site as are two primary schools, a Sure Start centre and a number of local shops.

The lower plan shows the route of the proposed tram route which is to have a stop next to Willford Bridge within five minutes walk of the site. The plan also shows the bus routes and stops in the area and the green zone shows the area that is within 5 minutes walk or 400m of a bus stop (which includes the whole site).

The site is extremely well served by public transport links. The new tram route - NET phase 2 is being built to the west of the site along Queens Walk boulevard, which will connect the Meadows with the city centre and out towards Wilford.

This ensures that the choices exist for more sustainable modes of transport within and around the site. It also means that residents could be less reliant on cars to get to work and leisure destinations.

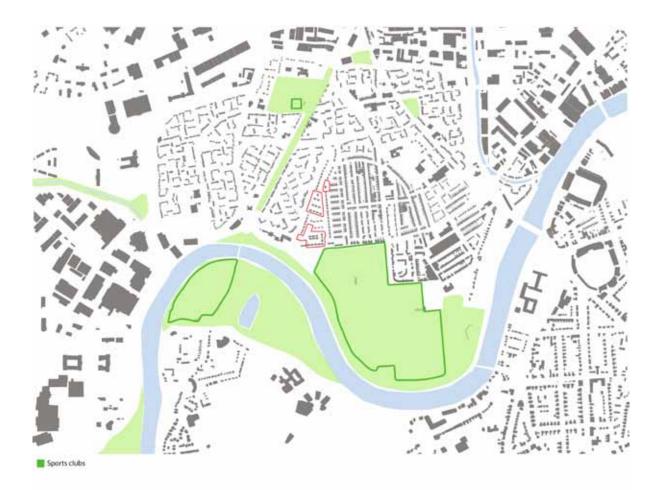


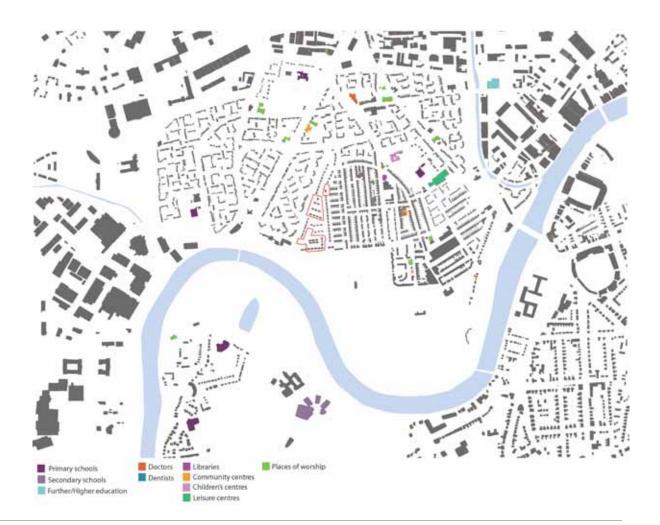
#### **Green Space**

There is a large expanse of green open space to the south of the site, located on the banks of the river. This provides a great space for outdoor recreation and children's play providing opportunity for health, fitness and wellbeing benefits.

#### **Local Amenities**

The site is served by a number of amenities within a ten minute walk, these include places of worship, a community centre and a library. The Bridgeway Shopping Centre lies north of the site, offering a supermarket, Post Office, the Meadows One-Stop shop and various retail and food shops.





### **Planning Policy Context**

The proposals for the scheme are in line with the National Planning Policy Framework (NPPF), which was adopted in 2012. The framework sets out the requirement for new development to be sustainable and this has been covered in the next chapter, Design Principles.

As updated Local Plans for Nottingham - The Aligned Core Strategy and The Land and Planning Policies Development Plan Document are due to be adopted in October 2013 and August 2015 respectively, this application will follow the saved policies (beyond November 2008) of the Nottingham Local Plan 2005.

Saved policies relevant to the site have been identified on the following page. As the re-development of the site was put out to tender, the Council put together a brief detailing their objectives for the type and scale of residential development which should be accommodated on the site.

Our proposals follow the Council's brief for the scheme, which includes accommodating a mix of private houses for sale and affordable properties for rent, thus adhering to Council's aspirations for the area.

#### **Current Designation:**

The site is currently designated for residential development in the Meadows Neighbourhood Plan, which was adopted in August 2009 and forms local planning policy for the area. This document acts as a guideline for regeneration and re-development in the Meadows and the concept behind our proposals, which is in line with this strategy, is identified in the next section of this report.

#### Planning History:

There are no past planning applications for the site, apart from the application to demolish the existing Cross Wall flats and garages. (Nottingham City Council Planning Application reference: 12/02431/PADA).



### The Saved Local Plan Policies (2005):

The site is located within the Primary Residential Area, designated in the Local Plan. This means proposals for residential development are appropriate on the site.

Directly adjacent to the southern part of the site, at the west end of Bathley Street, lies the Victoria Embankment open land which has been designated as part of the 'Open Space Network' and as a 'Major Park'. This designation restricts development in these areas.

It is our view that providing a frontage here, where our site abuts this land, will enhance the open space by providing natural surveillance, making the space feel safer. The houses, as with all the houses on the scheme will be designed to a high standard to provide an attractive view for those using the open space. A number of designations lie close to the site, for example the NET route for safeguarding, which is within 100 metres of the site boundary. The tram line, NET Phase 2 which runs along this route is currently under construction. This provides great access to public transport links from the site.

An area has been identified as 'Major Business Park', 600 metres west of the site boundary. Although the proposal will not affect this designation, the area could provide employment opportunities for new residents, further emphasising the sites sustainable location.

#### **Existing Meadows Architecture**

The images on the following page identify different architectural styles within the Meadows.

The 'Old Meadows' is made up of traditional, linear terraced streets, with houses dating back to the early 20th Century. Streets following this 'grain' are often more walkable and easier to navigate.

The terraces along Wilford Crescent West have been built along a curve which creates a pleasant vista.

Moving into the 'New Meadows', more modern housing takes the form of semi detached houses with front and back gardens. These were built by the council in the 1960s and 70s.

The properties which sat on the site, and have since been demolished - the Cross Wall flats, consisted of square blocks with four flats in each, two up and two down. Entrances to the flats were cluttered with wooden panel fences, which made the frontage to the flats look uninviting. Housing on Sandays Close is designed around cul-de-sacs and consists of two and three storey brick terraces. A number of footpaths connect these cul-de-sacs.

From looking at existing housing in the Meadows it is apparent that there are a range of styles, represented by the era in which the housing and streets were built.

Therefore we think it appropriate that our proposals represent housing from the 21st Century and deliver energy efficient, modern housing which is developed on well designed and accessible streets.

Views down Wilford Crescent West. These three storey terraces date back to the early 1900s.



Houses on Sandays Close. Google 2011







Houses on Wilford Crescent West. These properties were built by the council in the 1960s and 1970s and are mostly semi detached houses with front and back gardens. These houses look onto the proposed development site. Google 2011

The Cross Wall flats which have recently been demolished on the site. A dark footpath leads into the properties, which feels unsafe. It also means residents are unable to park at the front of their properties.



In this section we describe the design principles of the masterplan as a whole in terms of its connections, public realm, urban form, mix and density and access and parking.

#### **Initial Proposals**

In developing the masterplan we have sought to understand the role of the Pitcairn and Hobart site within the context of the Meadows and knit the new development into the wider area. We have also been interested in increasing the mix and quality of housing to produce a scheme which creates a sense of place and character.

The initial masterplan for the site was drawn up by the same team that has been working on the Green Street/ Kings School site in the meadows. The plan was an evolution of Green Street, using many of the same house types but also incorporating improvements, a greater mix of units and tenures and high environmental standard.

This section describes how the plans respond to various quality standards including Building for Life and Lifetime Homes. The sustainability strategy for the scheme is then set out including the achievement of CSH level 4 and its response to Blueprint's own sustainable investment policy, Footprint.



### Connections

A key principle of a sustainable urban network is that it is connected into the wider city. This includes access to public transport, schools, local shopping centres and other facilities. Blueprint are required to consider these issues through its Footprint Sustainable Investment Policy which has to be agreed before it is able to invest in schemes.

As we have explained in the previous section the site is very well served by public transport. The Bridgeway local retail centre is within 10 minutes of the site as are two primary schools, a Sure Start centre and a number of local shops.

The proposed tram route which is to have a stop next to Willford Bridge within five minutes walk of the site. The bus routes and stops in the area are within 5 minutes walk or 400m of a bus stop. This makes the site very accessible. However there is an issue with local connectivity. The estate to the west of the site is a 'Radburn' layout and is not designed to create clear safe pedestrian routes. We have therefore concentrated on creating one clear connection to this estate that can be overlooked by the new development and made to feel safe. The main connections will be northwards along Wilford Crescent to the shops, schools and other facilities and westwards along Victoria Embankment towards the proposed tram stop and bus routes. These routes are safe, supervised and overlooked by the proposed development.



#### **Public Realm**

The public realm plan to the right follows on from the discussion on connectivity. The main connections are along the embankment to the south, northwards up Wilford Crescent and the end of Pitcairn Close. The latter is an existing connection but the scheme seeks to make it into a much clearer more supervised route.

The plan to the right shows three types of public realm. The yellow shows pedestrian spaces and include pavements and the routes into the playing fields to the south. The grey areas are traditional road carriageways. The brown areas are however shared space. The site context makes it inevitable that the three roads off Wilford Crescent are cul-de-sacs and we have been keen to avoid intrusive turning heads at the end of each of these routes. The shared space areas are therefore designed to allow vehicles, including bin trucks, to turn, but are also designed as intimate public spaces. All new housing fronts onto these spaces, although inevitably some of the existing stock do back onto them. On the southern frontage to the site we have put a lot of thought into whether we should create a street frontage. We have concluded that there is value in the housing facing onto the park and to do this we need to have a public route and ideally car access to the front of the properties. On the other hand there are a lot of mature trees on the frontage and also a change of levels. The scheme therefore shows a ramp up to the level of the trees and a permeable shared vehicle surface in front of the housing.

Green space: We have not included any additional green space within the scheme. It's clear the site has great access to extensive areas of playing fields.

We do believe that the trees are an asset to the scheme and will make all efforts to retain them where possible. Currently there are 85 trees on site, and 36 will be removed, these are all category B and C. Please see the more detailed tree survey for more information.



#### **Urban Form**

The size and configuration of the site limits the options for the masterplan. We explored various alternative arrangements for Pitcairn, which continued the row of houses along the site boundary but this limited the developability of the balance of the site and failed to achieve the required density.

The plan is therefore based on the creation of three perimeter blocks. These allow housing to face outwards onto public realm and to have secure rears. We looked at a number of options that included parking to the rear but came to the conclusion that this would undermine the security of the properties. The frontages of the east west routes are therefore set back to allow either in-curtilage parking at the front of the property, or chevron parking.

These blocks allow us to create strong frontages and building lines to the green area to the south and to Wilford Crescent. The latter has in-line street parking allowing us to bring the building line close to the back of pavement. The exception being the corner of Hobart close where the frontage is set back to protect the existing trees. The scheme includes four 'L' shaped corner units to enclose the corner of the perimeter blocks – three of which front on to Wilford Crescent West. These allow the frontage to wrap around the prominent corners as well as a three storey unit to create a corner landmark.

The predominant heights of the other units in the scheme is two and three storey. The latter are based on the Green Street house types and have roof terraces on the southern elevation. These units are terraced allowing the scheme to create a set of strong, well defined frontages.



#### **Mix and Density**

The scheme has been designed as a close collaboration between Marsh Grochowski Architects and URBED. The scheme achieves 73 units on the site at a density of 48 units/ha (150 bed spaces/ha). This is slightly lower than Green Street as a result of the configuration of the site and constraints like the easement and access restrictions to the rear of the pumping station.

The scheme is designed to be a mix of house types and tenures. The scheme includes four bed units, three bed units and two bed units. All of these are houses (as described further on in this chapter) apart from 10 meet Lifetime Homes standards.

Marsh Grochowski have designed a bespoke set of house types to fit the needs of the masterplan. These are an evolution of the Green Street types. The evolution has includes a narrower frontage width (which impacts on density) and alternative layouts depending on the unit's orientation so that the roof terraces and living rooms always face south. In addition to this, the scheme includes the corner units described in the previous section, two types of terraced unit, designed specifically for affordable housing on this site.



#### **Tenure and Affordable Housing**

The housing mix has been designed to meet the requirements of Nottingham City Council issued in the Meadows Crosswall ITT. The tenures are generally in 2 area, the Hobart and the Wilford Crescent West sites being for sale and Pitcairn being Affordable rent or Shared Equity/ Ownership. This has been to maximise value for the sale and intermediate units, and to ensure that it is possible for ASRA Housing Group to effectively manage the affordable rented units.

The mix of units is as follows:

- > Sale units 34 / 73 = 47%
- > Shared Equity -5/73 = 7%
- Shared Ownership 13 / 73 = 18%
- > Affordable Rent -21/73 = 28%

The rented units are a mixture of 2, 3 and 4 bed units, to reflect the City Council's aspiration for family housing.

The affordable housing will be supported financially through grant from the HCA, as part of the 2011- 2015 programme.

The levels of grant are set at 24k per unit for affordable rent, and at 12k per unit for shared equity and shared ownership.

In terms of the sale, the evidence from the Green Street development is that 3 and 4-bed units of a high environmental standard were very popular, as was the requirement of shared equity. We feel the mix of sale units reflects this.

The table on the next page sets out the house type and the tenure for each unit.



### **Hobart Summary**

Plot	Туре	Storeys	GIFA - m2	House type	Tenure	Car parking	Energy Rating
1	A2	3	121.6	4b 8p ensuite	Private sale	garage + 1 space	AECB Silver Standard
2	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
3	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
4	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
5	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
6	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
7	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
8	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
9	C1	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
10	A2	3	121.6	4b 8p ensuite	Private sale	garage + 1 space	AECB Silver Standard
11	R5	3	111.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
12	S4	2	85	3b 5p	Private sale	1 space	AECB Silver Standard
13	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
14	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
15	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
16	C2	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
17	C2	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
18	C2	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
19	C2	3	103.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
20	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
21	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
22	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
23	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
24	R1a	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
25	R5a	3	111.1	4b 7p en suite	Private sale	1 space	AECB Silver Standard
26	S4	2	85	3b 5p	Private sale	1 space	AECB Silver Standard
27	R1	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
28	R1	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
29	R1	2	93.7	3b 5p	Private sale	1 space	AECB Silver Standard
30	S2	2	69.3	2b 4p	Sh Ownership	street	CSH Level 4
31	S2	2	69.3	2b 4p	Sh Ownership	street	CSH Level 4
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32	R2	2	83.2	3b 5p	Sh Ownership	street	CSH Level 4
33	R2	2	83.2	3b 5p	Sh Ownership	street	CSH Level 4

Plot	Туре	Storeys	GIFA - m2	House type	Tenure	Car parking	Energy Rating
34	R1	2	93.7	3b 5p	Aff Rent	1 space	AECB Silver Standard
35	R1	2	93.7	3b 5p	Aff Rent	1 space	AECB Silver Standard
36	R1	2	93.7	3b 5p	Aff Rent	1 space	AECB Silver Standard
37	R1	2	93.7	3b 5p	Aff Rent	1 space	AECB Silver Standard
38	R1	2	93.7	3b 5p	Aff Rent	1 space	AECB Silver Standard
39	R1	2	93.7	3b 5p	Aff Rent	1 space	AECB Silver Standard
40	R1	2	93.7	3b 5p	Aff Rent	1 space	AECB Silver Standard
41	S1a	2	77.8	2b 4p	Aff Rent	1 space	CSH Level 4
42	S1a	2	77.8	2b 4p	Aff Rent	1 space	CSH Level 4
43	S1a	2	77.8	2b 4p	Aff Rent	1 space	CSH Level 4
44	S1a	2	77.8	2b 4p	Aff Rent	1 space	CSH Level 4
45	S3	2	70.6	2b 4p	Aff Rent	1 space	CSH Level 4
46	R3	3	111	4b 7p	Aff Rent	1 space	CSH Level 4
47	R2a	2	83.2	3b 5p	Aff Rent	street	CSH Level 4
48	R4	2	89.1	3b 5p	Aff Rent	street	CSH Level 4
49	R4	2	89.1	3b 5p	Aff Rent	1 space	CSH Level 4
50	R4	2	89.1	3b 5p	Aff Rent	1 space	CSH Level 4
51	R2a	2	83.2	3b 5p	Sh Ownership	1 space	CSH Level 4
52	R2a	2	83.2	3b 5p	Sh Ownership	1 space	CSH Level 4
53	S2	2	69.3	2b 4p	Sh Ownership	1 space	CSH Level 4
54	S2	2	69.3	2b 4p	Sh Ownership	1 space	CSH Level 4
55	\$2	2	69.3	2b 4p	Sh Ownership	1 space	CSH Level 4
50	S1a	2	77.8	2h 4n	Ch Ownership	1	
56 57	S1a S1a	2	77.8	2b 4p 2b 4p	Sh Ownership Sh Ownership	1 space 1 space	CSH Level 4 CSH Level 4
58	R2a	2	83.2	3b 5p	Sh Ownership	1 space	CSH Level 4
59	R2a	2	83.2	3b 5p 3b 5p	Sh Ownership	1 space	CSH Level 4
	1120	~	00.2	00 00		, opuoo	
60	C1	3	103.1	4b 7p ensuite	Sh Equity	1 space	CSH Level 4
61	C1	3	103.1	4b 7p ensuite	Sh Equity	1 space	CSH Level 4
62	C1	3	103.1	4b 7p ensuite	Sh Equity	1 space	CSH Level 4
							CSH Level 4
63	C1	3	103.1	4b 7p ensuite	Sh Equity	1 space	CSH Level 4
64	C1	3	103.1	4b 7p ensuite	Sh Equity	1 space	CSH Level 4
65	S3	2	70.6	2b 4p	Aff Rent	1 space	CSH Level 4
66	R3	3	111	4b 7p	Aff Rent	1 space	CSH Level 4
67	S2	2	69.3	2b 4p	Aff Rent	street	CSH Level 4
68	R2	2	83.2	3b 5p	Aff Rent	1 space	CSH Level 4

### Wilford Crescent West Summary

Plot	Туре	Storeys	GIFA - m2	House type	Tenure	Car parking	Energy Rating
69	C1	3	103.1	4b 7p ensuite	sale - custom build	1 space	CSH Level 4
70	C1	3	103.1	4b 7p ensuite	sale - custom build	1 space	CSH Level 4
71	C1	3	103.1	4b 7p ensuite	sale - custom build	1 space	CSH Level 4
72	C1	3	103.1	4b 7p ensuite	sale - custom build	1 space	CSH Level 4
73	C1	3	103.1	4b 7p ensuite	sale - custom build	1 space	CSH Level 4

#### Parking

Parking is one of the most difficult issues on a scheme of this density. There are essentially only three options, in a rear courtyard, in-curtilage at the side of the property, or at the front. We have tried a number of options. However in the end we rejected rear parking courts because of concern over security and the problem of possible confusion about which way the house faces. At this density it is not possible to park down the side of the property so that the only option is at the front.

The problem with this is the impact of cars on the street scene and the width of streets. The plan to the right shows the initial parking arrangement for the scheme. This includes three types of parking: internal garages (light yellow), in-curtilage at the front of the property (dark yellow) and on street (brown).

The internal garages are confined to 'type A' 4-bed for sale units and there are only 2 in the scheme. These also have a driveway and so effectively have 200% parking. There are 66 in-curtilage parking spaces at the front of properties. This has involved moving the building line back on Hobart Close. Only 7 no. houses will have on street parking, which is a massive reduction in the number of existing properties that used to have to park on the street. There is still a large length of car parking space allowed on the existing retained streets for the existing houses in the area and visitors. Some of the on-street spaces will, however, serve the existing community to compensate for the loss of garages. Virtually all of the car parking is designed to Lifetime Homes standard with a 3.3 x 4.8 m space.



### **Sustainability and Energy Statement**

As a sustainability strategy it is sensible to focus on reducing the demand first, and then find the most efficient way to meet that demand from renewable technologies. We have concentrated on improving the fabric first, as this is better for reducing energy bills for the occupiers and maintenance costs for owners. By significantly reducing the total consumption of energy across the site, we will achieve 10% of the total site requirement from renewable energy through using super efficient whole house mechanical ventilation systems and waste water heat recycling.

The energy statement has been written to meet Nottingham City Council's Sustainable Energy Planning Requirement which requires "10% of the energy supply (interpreted through carbon emissions) in all new developments over 1,000 square metres to be gained on-site and renewably and/or from a decentralised, renewable or low carbon energy supply" and was adopted by the Council's Executive Board on 22 May 2007.

The client intends to achieve Code for Sustainable Homes (CSH) level 4\* for all 33 dwellings on the site from which 29 dwellings are proposed to be upgraded to the AECB Silver Standards.

The CSH level 4\* requires 25% improvement over the current building regulation Part L compliant dwelling. (25% less CO2 emission compared to Typical PART L 2010 compliant dwelling)

	% improvement 2010 DER/TER
Typical PART L 2010 compliant	0% (DER = TER )
CSH level 4* requirement	25%

Whereas, the AECB silver standards requires certified dwellings to achieve a space heating demand of 40kWh/ m2/yr, calculated using PHPP (Passivhaus Planning Package).

	Space heating demand
	(kWh/m2/yr)
	calculated using PHPP
Typical PART L 2010 compliant	60
AECB Silver requirement	40
% improvement	33%

Using a combination of energy efficiency measures & technologies the houses on the site will achieve more than the 10% improvement from the benchmark for infill medium density housing as set out in the energy report guide by Nottingham City Council.

**Hobart - 33 dwellings.** The Total site wide C02 calculated at 97.6 tonnes is 17.12% lower than the bench mark for this type of housing, showing the target of a minimum 10% reduction in CO2 is met.

**Pitcairn - 35 units.** The Total site wide C02 calculated at 92.7 tonnes is 12.26% lower than the bench mark for this type of housing, showing the target of a minimum 10% reduction in CO2 is met.

**Wilford Crescent West** - 5 dwellings. The Total site wide C02 calculated at 15.7 tonnes is 21.70% lower than the bench mark for this type of housing, showing the target of a minimum 10% reduction in CO2 is met.

#### Code for Sustainable Homes: (CSH) Level 4 Standard

The Code for Sustainable Homes (CSH) is an environmental assessment method for rating and certifying the performance of new homes based on BRE Global's EcoHomes scheme. It is a Government owned national standard intended to encourage continuous improvement in sustainable home building

The key aim of the Code for the Sustainable Homes is to provide a benchmark from which the whole building industry can design and construct new dwellings to a higher sustainability standard, as well as giving the new homebuyer better information about the environment impact and running cost of their new home.

Sustainable design principles based on CSH cover performance in nine key areas:

- > Energy and CO2
- > Water
- > Materials
- > Surface Water Run-off
- > Waste
- > Pollution
- > Health and Well-being
- > Management
- > Ecology

The Code for Sustainable Homes uses a rating system of one to six stars. Dwellings are assessed and rated individually in two stages - a post-construction review must be carried out prior to final CSH certification.

Minimum mandatory standards must also be met for carbon dioxide emissions, water, materials, waste and surface water run-off before even the lowest level of CSH can be achieved. For carbon dioxide emissions and water, these minimum standards rise with each level. Otherwise, the method of achieving the total score by accumulating credits is flexible. affected by the implementation of energy-efficiency measures and renewable energy technologies: ENE 1, ENE 2 & ENE 3. The ENE 1 credits are dependent on the % improvement over the current building regulation Part L compliant dwelling.

The client intend to achieve CSH level 4\* requires 25% improvement over typical Part L compliant dwelling, as shown in the table below.

Criteria		
% improvement 2010 DER/TER <sup>1</sup>	Credits <sup>2</sup>	Mandatory Requirements
≥8%	1	
≥16%	2	
≥ 25%	3	Level 4
≥36%	4	
≥ 47%	5	
≥ 59%	6	
≥ 72%	7	
≥ 85%	8	
≥100%	9	Level 5
Zero net CO2 emissions	10	Level 6
Default Cases		
None		

1. Performance requirements are equivalent to those in previous scheme versions but are now measured using the AD L1A 2010 TER as the baseline.

2. UP to nine credits are awarded on a sliding scale. The scale is absed on increments of 0.1 credits, distributed equally between the benchmarks defined in this table.

There are three sections of CSH which are directly

#### **AECB Silver Standard**

Supported by the Carbon Trust, the AECB have created a programme called CarbonLite which aims to improve the CO2 performance of buildings. Within this programme are three energy standards and buildings that meet these standards will be warm in the winter, cool in the summer, have a good level of indoor air quality and be affordable to run. These standards can be applied to all residential-type buildings and any non-domestic building categories which have energy benchmarks produced by the Carbon Trust.

The Silver Standard is the first stage of AECB standards but is a major improvement compared to normal UK building practice and the reduction in CO2 emissions and energy requirement comes from using products and materials that are available in the UK marketplace rather than renewables and other extra technology. In addition buildings conforming to this standard can be delivered close to current building costs.

The energy requirements of a dwelling built to the Silver Standard are:

- > Useful space heating energy: 40 kWh/m²/year
- > Primary Energy Consumption: 120 kWh/m<sup>2</sup>/year
- > CO<sub>2</sub> emissions: 22 kg/m<sup>2</sup>/year

The design approach follows the energy hierarchy which encourages the need to reduce energy and use energy more efficiently before looking at supplying energy from renewable sources. In order to achieve the 10% improvement required by Nottingham City Council the following technologies will be installed into the houses: **Hobart - 33 dwellings.** Situated to the south of the overall Pitcairne and Hobart Site, is made up of various houses types and will be constructed to meet the energy requirements of the CSH level 4\* and 29 dwellings upgraded to AECB Silver Standard.

**Pitcairn** - **35 units.** Situated to the west of the overall Pitcairne and Hobart Site, is made up of various houses types and will be constructed to meet the energy requirements of the CSH level 4\* and 7 dwellings upgraded to AECB Silver Standard.

**Wilford Crescent West** - **5 units.** This site is made up of 5 three bedroom dwellings to the north of the overall Pitcairne and Hobart Site and will be constructed to meet energy requirements of the CSH level 4\*.

In order to achieve the 10% improvement required by Nottingham City Council the following Energy efficiency measures and technologies will be installed into the houses.

The design approach follows the energy hierarchy which encourages the need to reduce energy and use energy more efficiently before looking at supplying energy from renewable sources.

The Energy efficiency measures such as good U-values of the building fabric and minimised heat losses through air tight construction and reduced thermal bridging, are proposed to reduce carbon dioxide emissions compared to the Building Regulations Target Emission Rate, to contribute towards meeting the Code for Sustainable Homes target.

- > External Wall: U- value = 0.15W/m<sup>2</sup>K
- > Roof: U- value =  $0.09W/m^2K$
- > Exposed Floor: U- value = 0.16W/m<sup>2</sup>K
- > Door: U- value =  $1.0W/m^2K$
- > Window: U- value =  $0.9W/m^2K$

#### Mechanical Ventilation with Heat Recovery:

A mechanical ventilation system) which brings in a fresh supply of air (changes the air in the house every two hours) via a heat exchanger and replaces stale damp air with fresh, pre-warmed and clean air. Benefits of the system include a reduction in heating bills from recovering heat (60-70%) that is normally lost through extract ventilation, humidity (which can cause condensation, mould growth and helps dust mites to breed) is kept low and a generally healthier home created with the use of a British Allergy Approved filtered fresh air which stops pollen and other allergens entering house and alleviating symptoms suffered by asthma and hayfever sufferers.

The results for each application can be found on the following pages.

### **Hobart Summary**

House Type	No. of House Types	Total Floor Area (m <sup>2</sup> )	Emissions <b>(Kg Co₂)</b>
A2	2	237.8	5681.04
C1 (Mid)	6	618.6	15174.25
C1 (End)	2	206.2	5458.11
R5	1	111	2796.09
S4	1	85	2580.6
R1a (End)East	2	187.4	4825.55
R1a (Mid)East	1	93.7	2297.52
C2 (End)	2	206.2	4979.73
C2 (Mid)	2	206.2	4750.84
R1a (End) North	2	187.4	4881.77
R1a (Mid) North	3	281.1	6974.09
R5a	1	111	2801.64
S4a	1	85	2586.55
R1 (End)	2	187.4	4923.67
R1 (Mid)	1	93.7	2297.52
R2	2	166.4	4236.54
S2	2	138.6	3711.70

Total floor area of site = 3202.7 m2

Total site emissions = 80957.21 kgCo2

Benchmark emissions = site area x 30.5 (medium density infill housing) = 97682.35 kgCo2

Site Improvement over Benchmark = 17.12%

Using the benchmark for infill medium density housing as set out in the energy report guide by Nottingham City Council is 30.5kg CO2/m2/year, the proposed total site CO2 is 17.12% lower than the benchmark. Therefore the site is meeting the requirements of Nottingham City Council's Energy Requirements of a 10% reduction.

## **Pitcairn Summary**

House Type	No. of House Types	Total Floor Area (m²)	Emissions <b>(Kg Co₂)</b>
R1 (End)	4	374.8	10610.58
R1 (Mid)	3	281.1	7362.00
S1a (End)	2	155.6	4261.88
S1a (Mid)	2	155.6	3958.46
S3	2	141.2	4302.36
R3	2	222	4972.8
R2a east	1	83.2	2288
R2a (End)	2	166.4	4504.44
R2a (Mid)	2	166.4	4179.96
R4	3	267.3	6671.80
S2 (End)	2	138.6	4199.58
S2 (Mid)	1	69.3	1936.93
S1a (End north)	1	77.8	2197.85
S1a (Mid north)	1	77.8	2032.91
C1 (End)	4	412.4	11093.56
C1 (Mid)	1	103.1	2534.19
S2	1	69.3	2013.85
R2	1	83.2	2287.16

Total floor area of site = 3042.1m2

Total site emissions = 81408.31 kgCo2

Benchmark emissions = site area x 30.5 (medium density infill housing) = 92784.05 kgCo2

Site Improvement over Benchmark = 12.26%

Using the benchmark for infill medium density housing as set out in the energy report guide by Nottingham City Council is 30.5kg CO2/m2/year, the proposed total site CO2 is 12.26% lower than the benchmark. Therefore the site is meeting the requirements of Nottingham City Councils Energy Requirements of a 10% reduction.

### Wilford Crescent West Summary

House Type	No. of	Total Floor Area	Emissions
	House Types	(m²)	<b>(Kg Co<sub>2</sub>)</b>
C1	5	515.5	12310.14

Total floor area of site = 515.5m2

Total site emissions = 12310.14 kgCo2

Benchmark emissions = site area x 30.5 (medium density infill housing) = 15722.75 kgCo2

Site Improvement over Benchmark = 21.70%

Using the benchmark for infill medium density housing as set out in the energy report guide by Nottingham City Council is 30.5kg CO2/m2/year, the proposed total site CO2 is 21.70% lower than the benchmark. Therefore the site is meeting the requirements of Nottingham City Councils Energy Requirements of a 10% reduction.

## **Building For Life 12**

This is our Building for Life assessment. Our aspiration is to achieve Green on all question BFL12 Diamond.

Standard	Comment	
Integrating into the neighbourhood		
1. Connections		
1a Where should	Hobart site - The main route into and out of the site will be by using the existing access road	
vehicles come in and	(Hobart Close) since this is already a well defined entrance and also provides access to the	
out of the development?	existing houses to the north, the 2 units to the far south-west at the end of Hobart Close , the	
	existing row of units along the west boundary and access to the pumping station. It is important	
	this existing access way is retained in use during the building works. It is also proposed to	
	introduce a new private access way along the south side of this site on the embankment along the	
	line of the existing pathway providing a pleasant walkway along the south boundary between the	
	existing trees, as well as allowing vehicular and pedestrian access to the 10 new houses along this	
	boundary. This new access way connects the end of Bathley Street to Victoria Embankment.	
	Pitcairn site - The existing road (Pitcairn Close ) is to be retained along the south side of the	
	site since this is already a well defined and used entrance and also provides access to the existing	
	houses to the south, the existing row of units along the west boundary and also access to the	
	pathway to the west into the neighbouring area. This existing road currently ends in a large row of	
	garages along the west of the site and this is to be omitted completely. A new access road is also	
	to be provided into the heart of the site off Wilford Crescent West, which divides the site in half,	
	allowing for street frontages and access to further houses . This new road ends in a large paved	
	, landscaped area at the base of the tree lined embankment. It will be large enough for a dustbin	
	lorry to turn around.	
	Wilford Crescent West site - this small site fronts onto Wilford Crescent West and is of narrow	
	depth not requiring a new access road. Access will remain directly off Wilford Crescent West for	
	vehicles and pedestrians.	
1b Should there	Hobart site - The existing pedestrian only access route in the far south west corner between the	
be pedestrian and	retained units and pumping station is to be retained and the gable end of unit 33 will provide a	
cycle only routes	vista end as well as overlooking to the pathway. A new pedestrian only pathway will be introduced	
into and through the	between the east side of the retained units and the west side of unit 1 at the end of the new	
development? If so	embankment access way, providing direct access into the landscaped area at the end of Hobart	
where should they go?	Close. Windows in the west end of unit 1 will overlook this new pathway.	

	<b>Pitcairn site</b> - The existing pedestrian only pathway at the end of Pitcairn Close is to be retained
	and made more open and user friendly by opening out the space at the end of the road and
	altering the levels in a more gentle fashion to overcome the gradient on the pathway. Units 34 - 38
	will directly overlook this pathway
1c Where should new	Hobart site - the new 'street' has been located along the south side of the site along the edge of
streets be placed	the embankment to reinforce the existing pathway along here, as well as provide vehicular access
and could they be	to units 1-10 (and to existing house no. 318). This 'street' acts as a link between the west end of
used to cross the	Bathley Street and the road along Victoria Embankment. The level differences at either end will be
development site and	sensitively designed with gradual ramps and paths.
help create linkages	Pitcairn site - The new street has been located off Wilford Crescent West providing direct
across the scheme	access into the heart of the site and opens up the view of the existing pathway which runs along
and into the existing	the west boundary of the site making it more user friendly and connects the development to its
neighbourhood?	neighbours.

1d How should the new	All 3 of the development sites are part of the overall Meadows housing area and need to integrate
development relate to	into the existing fabric of the area. The existing Meadows development is set out on very rigid
existing development?	footprints and because we are to use existing streets in to the sites these have become an
What should happen	important design generator.
at the edges of the	Hobart site - the new layout follows the existing layout with rows of houses parallel to the
development site?	Embankment, Wilford Crescent West and Hobart Close, providing a central garden area
	overlooked by all the properties. The new houses to the south boundary are a continuation
	of line of the retained units, but will be 3 storey to make use of the fantastic views to the south
	towards the river. The existing building line and footprint has been maintained where possible
	to allow for retention of a number of existing trees. A small infill of 4 houses (30 - 33) fill the gap
	between the pumping station and the row of existing units along the west boundary and overlook
	the landscaped termination of Hobart Close.
	Pitcairn site - the new layout follows the geometry of the existing layout since it relates to
	the existing streetscenes. The new access street follows the same angle as the existing street,
	perpendicular to the existing footpath at its end. Unit 65 is to have a purpose designed end gable
	(north side) to create a vista end to the existing Wilford Crescent West.
	The edges of the sites are carefully considered. The new houses provide an enclosure to the sites
	and are built along all edges, but the houses are broken down into small lengths to allow views
	into and out of the site, as well as providing access. These gaps have also been used to stagger
	the buildings so there are no long runs of dominant elevations. Since the existing edges are well
	landscaped with trees, these have been retained wherever possible so the edges will be soft and
	provide a sense of age to the sites. The actual edges of the sites will be generally be a mixture
	of timber fences, gates, low walls and gardens, which will provide the opportunity to introduce
	domestic scale detail to the perimeter with natural materials.
2. Facilities and services	
2a Are there enough	The 3 sites already contain a large number of dwellings and although these are now empty, the
facilities and services in	local infrastructure is in place to support the development. The Meadows area is an historical
the local area to support	housing area and well provided with schools, shops, doctors surgeries, community centre, library,
the development? If not,	play areas, parks.
what is needed?	
3. Public transport	
3a What can the	The 3 sites are all very close to existing public transport locations. These are to be retained and
development do to	the access ways to these maintained and reinforced to make it easy for people to get to bus stops
encourage more people	and the station.
(both existing and new	
residents) to use public	
transport more often?	
•	I

3b Where should new	The new development will not require any new public transport stops since it is already well
public transport stops	provided and the development will not affect them. The proposed new tram route to the west o
be located?	the 3 sites will be a very important means of public transport and the new access 'street' along
	the embankment will help in providing a better, safer and more pleasant walking environment to
	the proposed new tram stop.
4. Meeting local housing	g requirements
4a What types of homes,	Housing tenure mix
tenure and price range	The mix of units is as follows:
are needed in the area	<ul> <li>Sale units – Private sale 47 % (34 houses)</li> </ul>
(for example, starter	
homes, family homes	> Shared Equity – 7 % ( 5 houses)
of homes for those	Shared Ownership – 18% (13 houses)
downsizing)?	> Affordable Rent – 28% (21 houses)
	This mix meet the requirements of the City Council which was issued in the Meadows Crosswall ITT exactly, based upon the number of units. The tenures are spread across the whole site but arranged to maximise value for the sale and intermediate units, and to ensur that it is possible for Asra Housing Group to effectively manage the affordably rented units. The 5 units for Shared Equity are large 3 / 4 bed units, which are identical to the outright sale units. Purchasers would be expected to buy 80% of the property, and then Asra Housing Group would give them a rent and interest free loan for the remaining 20%, with the
	expectation that they would purchase the remaining 20% stake at year 10. For Shared Ownership, 13 units are included, which are a range of smaller 2 and 3 bed homes. It is our experience with Shared Ownership that smaller units are more desirable, as many Shared Ownership purchasers are first time buyers with limited deposits and income available. They also generally look to purchase only 30% – 50% of the property at the first tranche, which means that it is better for viability purposes smaller units are more appropriate.
	The rented units are a mixture of 2, 3 and 4 bed units, to reflect the City Council's aspiratio for family housing. With a variety of different unit types and sizes varying from 69m2 – 77m for 2 bed rented properties, and from 83 – 93m2 for 3 bed rented units, all meet an absolut minimum of HQI sizes, and a number are significantly larger, with some designed to achieve EP standards. A further 2 large 111m2 4 bed houses ensure that some larger families can be accommodated, and all Affordable Rented and Shared Ownership units, as well as many of the Sale units achieve Lifetime Homes.

4b Is there a need for	See above
different types of home	
ownership (such as part	
buy and part rent) or	
rented properties to	
help people on lower	
incomes?	
Creating a place	
5. Character	
5a How can the	The part of the Meadows area in which the sites are located is in the 1960's/70's developed zone.
development be	The distinctive identity of this area is one of geometrically planned streets and houses of 2/3
designed to have a local	storeys with criss crossing linear streets. As a mainly housing area, it has plenty of open space
or distinctive identity?	and the original tree planting is now around 50 years old and just coming into its prime. The
	gardens to the houses provide a specific and individual feel to the dwellings which are generally
	quite repetitive and similar. It is intended to focus on this existing identity with the new housing
	so its sympathetically blends into the grain, but the new housing will develop its own identity by
	providing a 'uniform' contemporary design using the same palette of materials to all dwellings
	- mellow brickwork, renders of different subtle colours, aluminium windows and doors, timber
	boundary conditions, pergolas, entrance canopies, identical doors, roof terraces to the Hobart
	site dwellings.
5b Are there	The existing building shapes are quite simple, sharp and 'boxy' with little decoration. Windows
any distinctive	are large. There is a mixture of materials, but the overall impression is of render and flat, boarded
characteristics within	surfaces. Colours are generally pale. Roofs are generally pitched with concrete tiles. The
the area, such as	contemporary style of the new development picks up on these items and will use a mixture of
building shapes, styles,	different pale render colours at upper levels, with brickwork at ground level for a soft appearance
colours and materials	and hard wearing finish. Roofs will be pitched with parapets and copings incorporated to add
or the character of the	interest. Windows will be aluminium and provide a very sharp and geometric fenestration to the
streets and spaces that	dwellings. All new houses will have timber boundary fences and gates. Many properties will have
the development should	external pergolas to provide a sun shade as well as a sense of enclosure to external terraces/
draw inspiration from?	seating areas. Gaps between buildings will have windows wherever possible to allow overlooking
	and prevent blank facades.
6. Working with the site	e and its context
6a Are there any views	Hobart site - the view to the south towards the Embankment are excellent and the houses along
into or from the site	here have been made 3 storey to make use of this. The terrace of houses (numbers 1-10) also
that need to be carefully	provides a backdrop to the tree lined embankment area. The corner of the site at the junction of
considered?	Bathley Street and Wilford Crescent West is very important as it is the first part of the site that
	many people will see and since it is raised above the existing street level on a small embankment,
	this only adds to the sense of importance.

Pitcairn site - The 2 corners at the south east and north east on Wilford Crescent West provide
an important introduction to this site from both directions and the buildings designed to fit
here are specials. The view along Pitcairn Close and its connection to the existing pathway is an
important view and this has been improved by opening out the space and creating a landscaped
space where the street meets the path - the connection has become more apparent and focused.
The trees as previously mentioned are of real importance on the site and the development has
been designed to retain as many as possible. The arboricultural report indicates that there are
85 trees on the entire site area and it is proposed 36 of these trees are removed to facilitate
the layout. Of these 36 removed trees, 33 no. are category C and 3 no. category B. The positions
of underground services, especially mains drainage has resulted in detailed design where this
impacts on the site, especially at units 31-33 (where there is a drain and easement in the existing
parking area) and at unit 68 (where a drain is provided for the existing houses to the north).
It is understood that Nottingham City Council looked at the viability of retaining the existing
buildings and the decision was made to demolish the existing buildings and start again.

7. Creating well defined	l streets and places
7a Good streets and	This was a specific design generator. All new and existing streets are enclosed with new houses.
places are created by	
enclosing them with	
buildings and a strong	
landscaping scheme.	
Are buildings used to	
create enclosed streets	
and spaces <sup>p</sup>	
7b Good buildings 'turn'	The corners of the Hobart and Pitcairn sites are very important since the density of the
corners. Do buildings	development means the buildings wrap around the corners. Specific building types have been
turn corners well?	designed to be located on these corners. The R3/S3 and R5/S4 building type is two side by side
	houses, designed to turn the corner as well as providing a 3 storey 'tower' on the corner as a focal
	point. At the Pitcairn site the new access street has a curved entrance and 3 special (identical)
	units type R4- units 48, 49 and 50 have been designed to provide a curved facade that turns the
	corner with the road. The gable ends of all houses where these are visible have been specially
	designed to integrate windows and render panels to create interesting gable elevations.
7c Do all fronts of	This has been a specific design generator. All of the 73 houses have their own private entrance
buildings, including	door with canopy over (for lifetime homes) facing the street.
front doors, face the	
streetP	
8. Easy to find your way	y around
8a Will the	Since the new plans follow the general footprint of the existing buildings and the street pattern
development be easy to	they will be very easy to navigate. The sites are relatively small and the layout of buildings on them
find your way around? If	is straightforward meaning orientation will be simple and you will always know where you are on
not, what could be done	the sites. Since all front doors face the street entrances will be safe and easy to locate, as well as
to make it easier to find	easy to recognise the numbering.
your way around?	
Street and Home	
9. Streets for all	
9a Are streets	Existing streets will remain, but the new frontage to these streets and new footpaths will create
pedestrian friendly	a more domestic appearance and should slow down cars. Entrances to houses directly off the
and are they designed	footpaths and garages/carports will assist in providing a more people focused space instead of
to encourage cars to	car based.
drive slower and more	
carefully?	
	New streets will be home zone designed at the turning heads with pavers and paving. Tarmac
	roads will be used to extend existing roads to these new turning heads. Pavements will effectively
	be part of the roadway, with only a 25 mm difference in level.

9b Are streets designed	The existing streets at Hobart Close and Pitcairn Close are to be terminated with a large
in a way that they can be	landscaped area allowing potential for social spaces and children to play. There is an existing
used as social spaces,	enclosed green space at the end of Hobart Close which it is hoped can be integrated more with
such as places for	the development. The new home zone street into the Pitcairn site has a paved area at the end and
children to play safely?	should create a safe and secure area with the slight grassed embankment and trees along this
	boundary.
10. Car parking	
10a Is there enough	66 of the 73 houses have either an integral garage or in curtilage parking. Only 7 no. houses
parking for residents	will have on street parking, which is a massive reduction in the number of existing properties
and visitors?	that used to have to park on the street. There is still a large length of car parking space
	allowed on the existing retained streets for the existing houses in the area and visitors.
	Virtually all of the car parking is designed to Lifetime Homes standard with a 3.3 $ imes$ 4.8 m
	space.
10 b ls parking	As above, 90 % of the parking is at the house location. The other street parking is located
positioned close to	directly in front of the houses it is expected to serve, a few short steps away.
people's homes?	
10 c Are any parking	Parking courtyards have been specifically excluded.
courtyards small in	
size (generally no more	
than five properties	
should use a parking	
courtyard) and are	
they well overlooked	
by neighbouring	
properties?	
10 d Are garages well	Only 2 integral garages are provided (units 1 and 10).
positioned so that they	
do not dominate the	
street scene?	

11. Public and private s	spaces
11a What types of	There is no specific open space required since the development is a few minutes walk to the
open space should be	Meadows parkland area where there is acres of parkland, play facilities, sports facilities etc.
provided within this	
development?	
11b Is there a need	See above.
for play facilities	
for children and	
teenagers? If so, is	
this the right place or	
should the developer	
contribute towards an	
existing facility in the	
area that should be	
made better?	
12. External storage ar	nd amenity space
12a Is there enough	All 73 houses will have their own yard/garden where there will be specific location for
storage space for bins	minimum 2 wheelie bins (and 3 if garden/lawn area provided). There will be a pathway from
and recycling, as well	each yard/garden area allowing the wheelie bin to be taken to a designated street location
as vehicles and cycles?	where it can be collected by the dustbin lorry. Internal recycling space will be provided in all
	kitchens. All garden/yard areas will be provided with a timber enclosure for external storage and bike storage.

## **Lifetime Homes Standards**

The intention is that as many of the houses as possible meet Lifetime Homes standard, and those that cannot are designed to meet as many of the criteria as possible even though ultimately they will not meet all 16 points.

### 1. Car Parking Width

Getting into and out of a vehicle must be as convenient as possible. Where car parking is adjacent to the home, it should be capable of enlargement to attain 3.3m width.

Response: 66 of the 73 houses meet this criteria (Those not meeting are :- 12, 30, 31, 32, 33, 47, 48)

#### 2. Approach to dwelling from Car Parking

The distance from the car parking space to the dwelling entrance should be kept to a minimum and should be level or gently sloping.

Response: 72 out of the 73 houses meet this criteria. (Only units 11 cannot meet this requirement due to the level difference between the existing street and the site level.)

#### 3. Approach to all entrances

The approach to all entrances should be level or gently sloping.

Response: 72 out of the 73 houses meet this criteria. (Only units 11 cannot meet this requirement due to the level difference between the existing street and the site level)

### 4. External entrances

All entrances should be illuminated, have level access over the threshold, have necessary clear opening width and have a covered main entrance.

Response: All 73 houses meet this criteria.

#### 5. Communal stairs and lifts

Communal stairs should provide easy access and, where homes are reached by a lift, it should be fully accessible.

Response: Not applicable to this scheme

#### 6. Internal Doorways and Hallways

The width of internal doorways and hallways should conform to the criterion.

Response: All 73 houses meet this criteria.

#### 7. Circulation space

There should be space for turning a wheelchair in dining areas and living rooms and adequate circulation space for wheelchairs elsewhere.

Response: All 73 houses meet this criteria.

#### 8. Living room

The living room should be at entrance level.

Response: 71 out of the 73 units meet this criteria. The type A2 dwellings have a first floor living space and therefore do not meet this criteria. (Therefore units 1 and 10 do not meet the criteria).

#### 9. Entrance level bedspace

In houses of two or more storeys, there should be space on the entrance level that could be used as a convenient bed space.

Response: 71 out of the 73 units meet this criteria. The type A2 dwellings have a first floor living space and therefore do not allow a bed space at entrance level.( Therefore units 1 and 10 do not meet the criteria).

### 10. Entrance level WC and shower drainage

In houses with three or more bedrooms, and all dwellings on one level, there should be a wheelchair accessible toilet at entrance level with drainage provision enabling a shower to be fitted in the future. In houses with two bedrooms the downstairs toilet should conform at least to Part M.

Response: All 73 houses meet this criteria.

#### 11. Bathroom and WC walls

Walls in the bathroom and WC should be capable of taking adaptations such as handrails.

Response: All 73 houses meet this criteria.

#### 12. Stair lift/through floor lift

The design should incorporate provision for a future stair lift and a suitably identified space for a through the floor lift from the ground floor to the first floor, for example to a bedroom next to the bathroom.

Response: All 73 houses meet this criteria.

### 13. Tracking hoist route

The design and specification should provide a reasonable route for a potential hoist from a main bedroom to the bathroom.

Response: All 73 houses meet this criteria.

### 14. Bathroom layout

The bathroom should be designed for ease of access to the bath, WC and wash basin.

Response: All 73 houses meet this criteria.

#### 15. Window specification

Living room window glazing should begin no higher than 800mm from the floor level and windows should be easy to open/operate.

Response: All 73 houses meet this criteria.

#### 16. Controls, fixtures and fittings

Switches, sockets, ventilation and service controls should be at a height usable by all (i.e. between 450mm and 1200mm from the floor) and 300 mm away from any internal room corners.

Response: All 73 houses meet this criteria.

#### Summary

63 of the 73 houses meet all 16 requirements for Lifetime homes. Of the 10 houses that do not meet all the requirements, these houses meet at least 14 of the 16 standards.



View of the proposed scheme looking down Wilford Crescent West