









Housing Development at Crokers Hill, Kilkenny
For Kilkenny County Council
February 2019



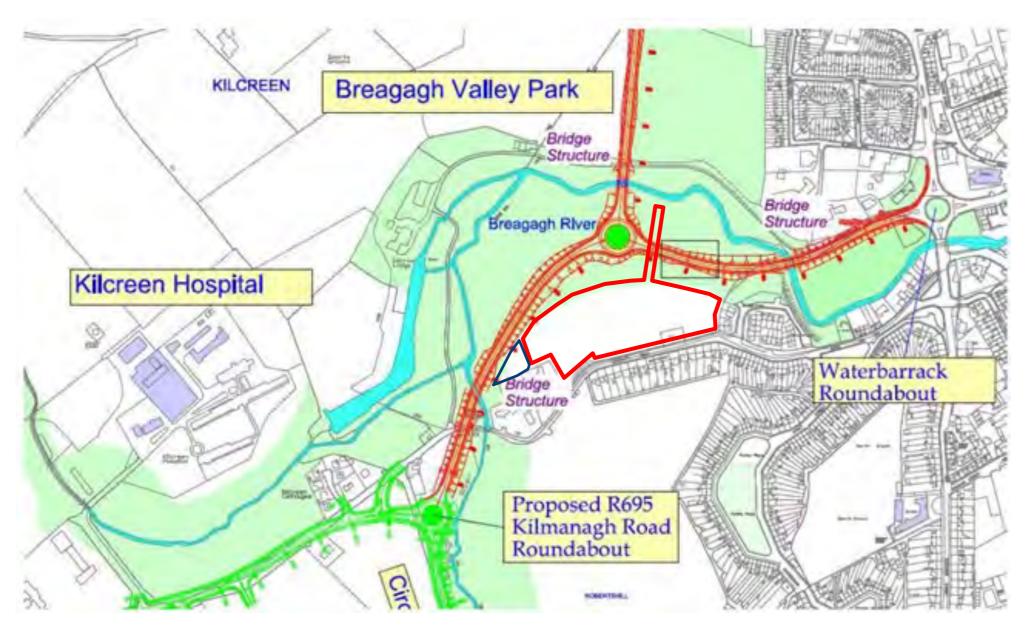


### Introduction

This Architectural Design Statement has been prepared in support of a planning application for a residential development at Crokers Hill, Kilkenny by Kilkenny Council

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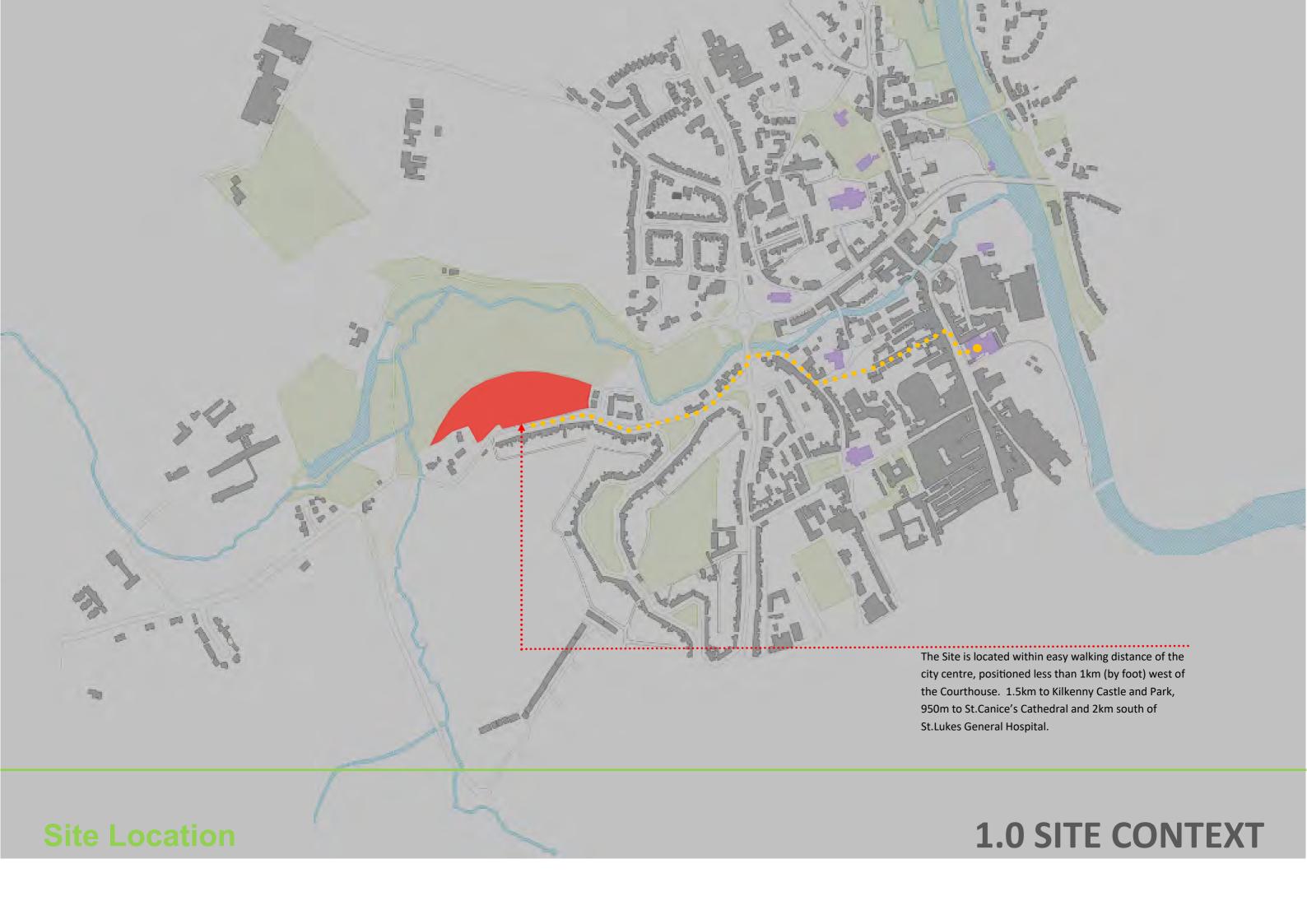


The site with an area of 2.2221 Hectares lies to the west of Kilkenny City Centre. The Site is located within easy walking distance of the city centre, positioned less than 1km (by foot) west of the Courthouse. 1.5km to Kilkenny Castle and Park, 950m to St.Canice's Cathedral and 2km south of St.Lukes General Hospital.

It is bounded on the north by a green field site, part of which is intended to be used as part of the Central Access Scheme Road, on the south by Kennyswell Road and on the east and west by existing private residences.

Kilkenny City & Environs Development Plan 2014-2020 shows the site located within the Development Boundary as part of the proposed Loughmacask neighbourhood.

The proposed development consists of 86 units including a 5 Bed Group Home, 1no. 5 bed 9 person wheelchair accessible house, 4no. 4 bed 7 person Houses, 19 no. 3 bed 5 person houses, 12 no. 3 bed 5 person apt / duplex, 34 no. 2 bed 4/5 person apt / duplex, 15 no. 1 bed 2 person apt and Community facility spaces.

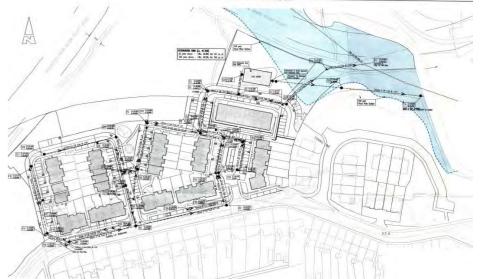


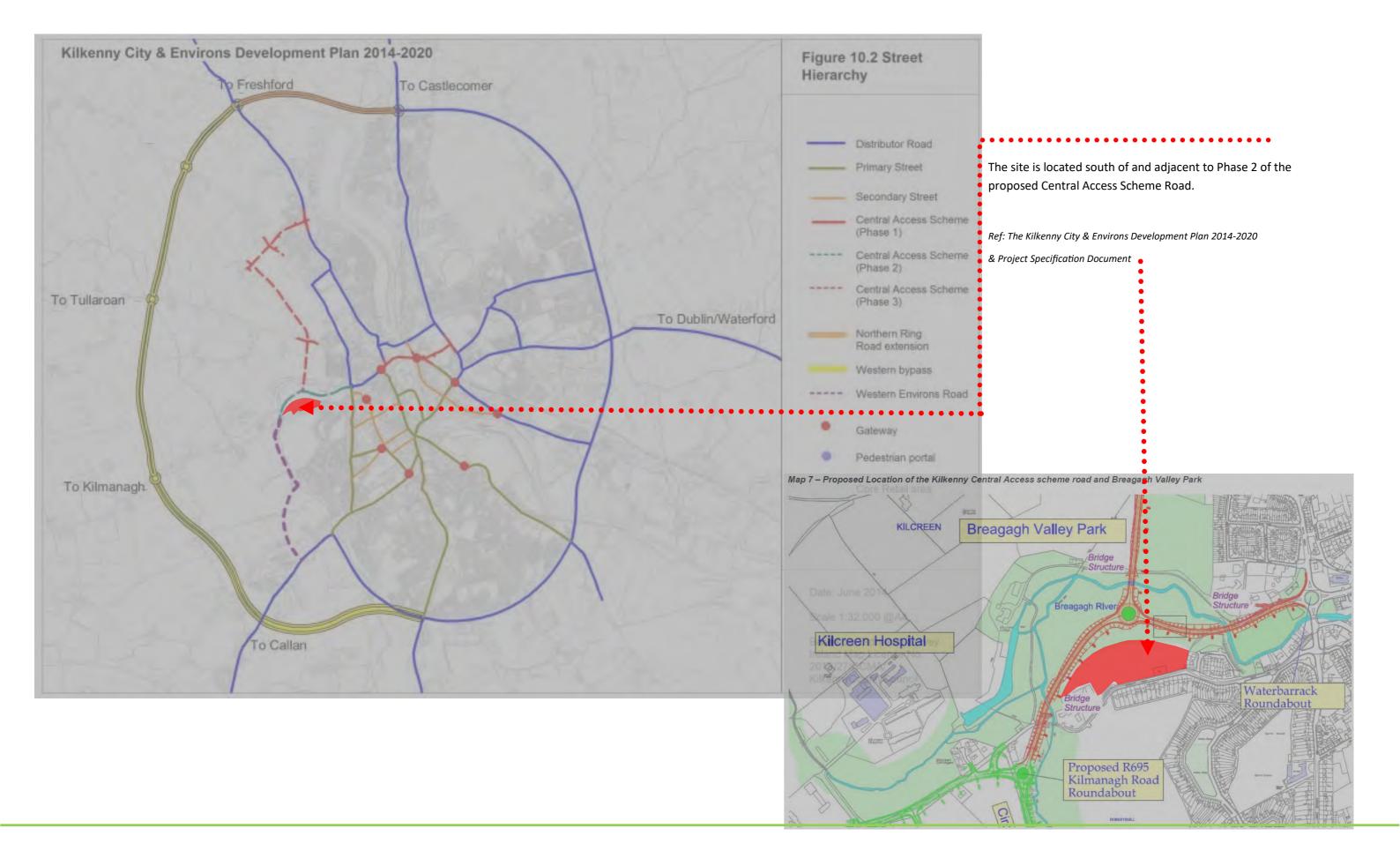


Kilkenny City & Environs Development Plan 2014-2020 shows the site located within the Development Boundary as part of the proposed Loughmacask neighbourhood.

Ref: The Kilkenny City & Environs Development Plan 2014-2020.

Previous Planning Application associated with part of the site included 57 units comprised of apartments and houses with two new entrances onto Kennyswell Road. Application granted for five years up to April 2018. Planning permission has now lapsed.







Satellite View 1.0 SITE CONTEXT



View looking West along Kennyswell Road



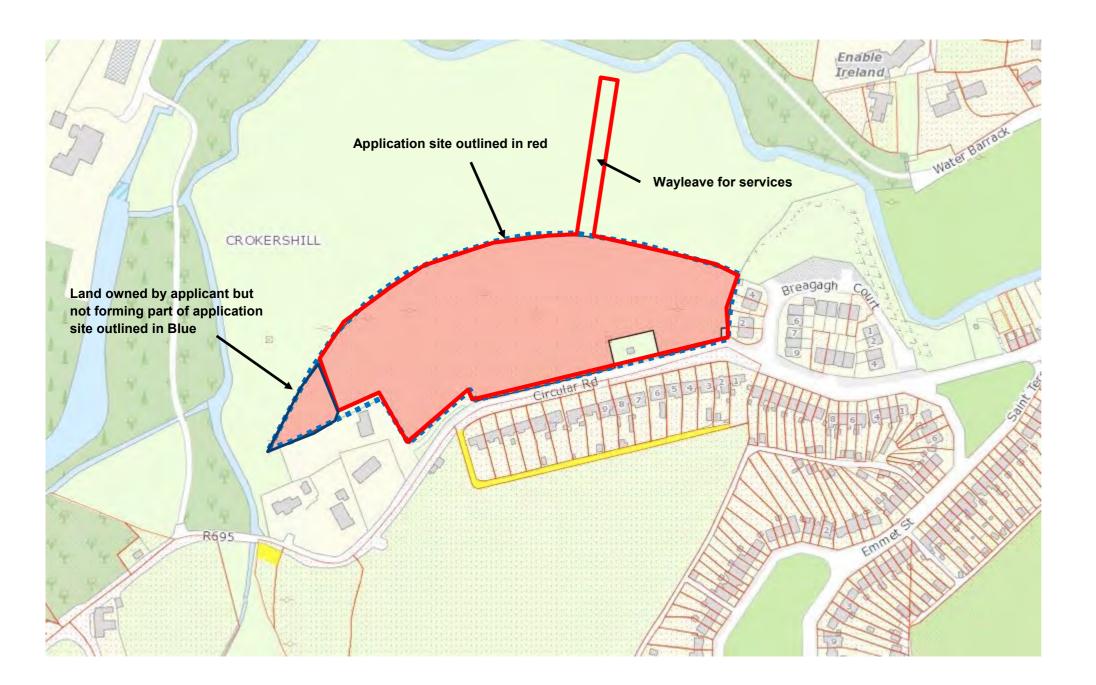
View looking North across site from Kennyswell Road



View looking East along Kennyswell Road



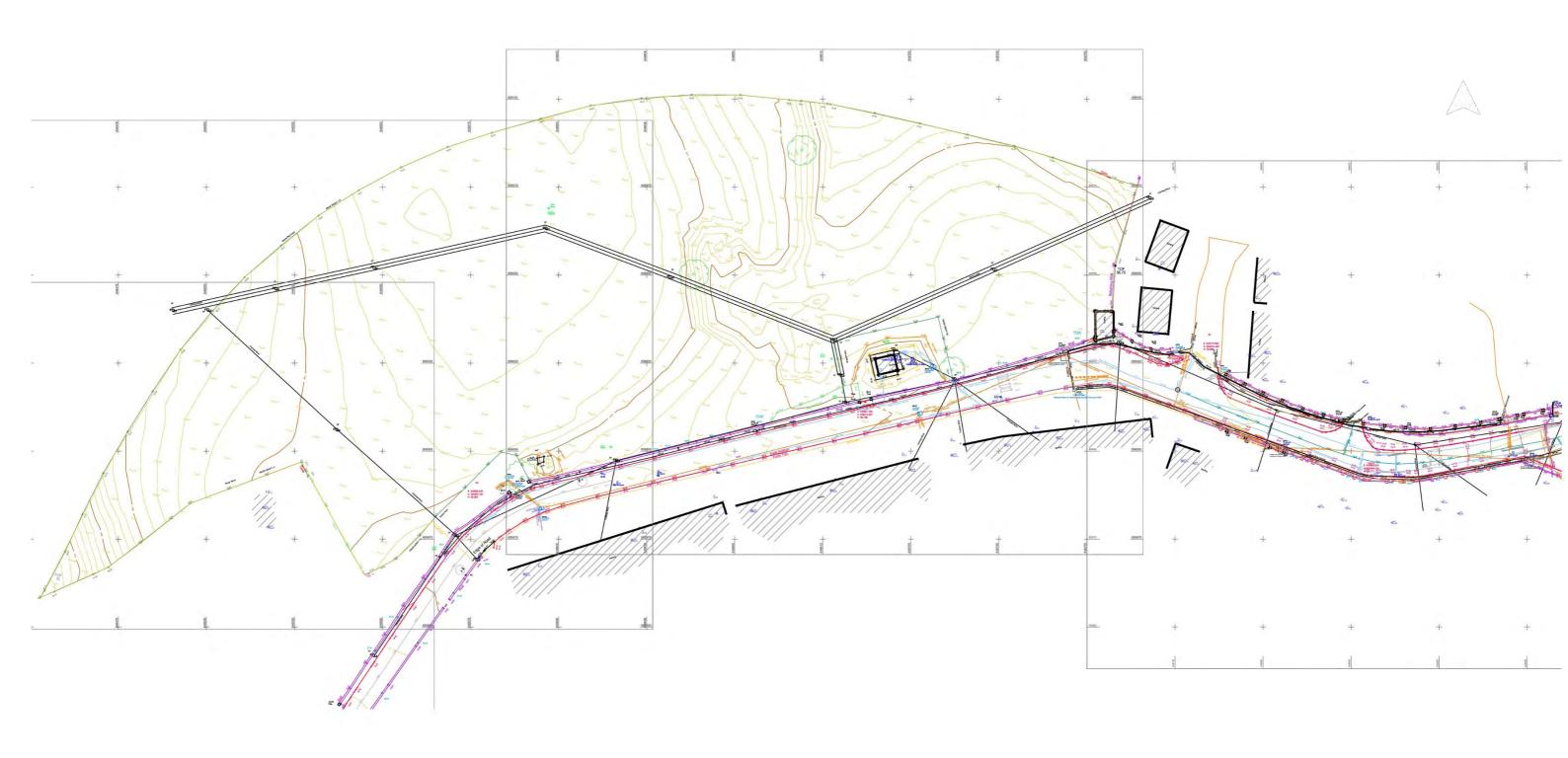
View looking North across site from Kennyswell Road

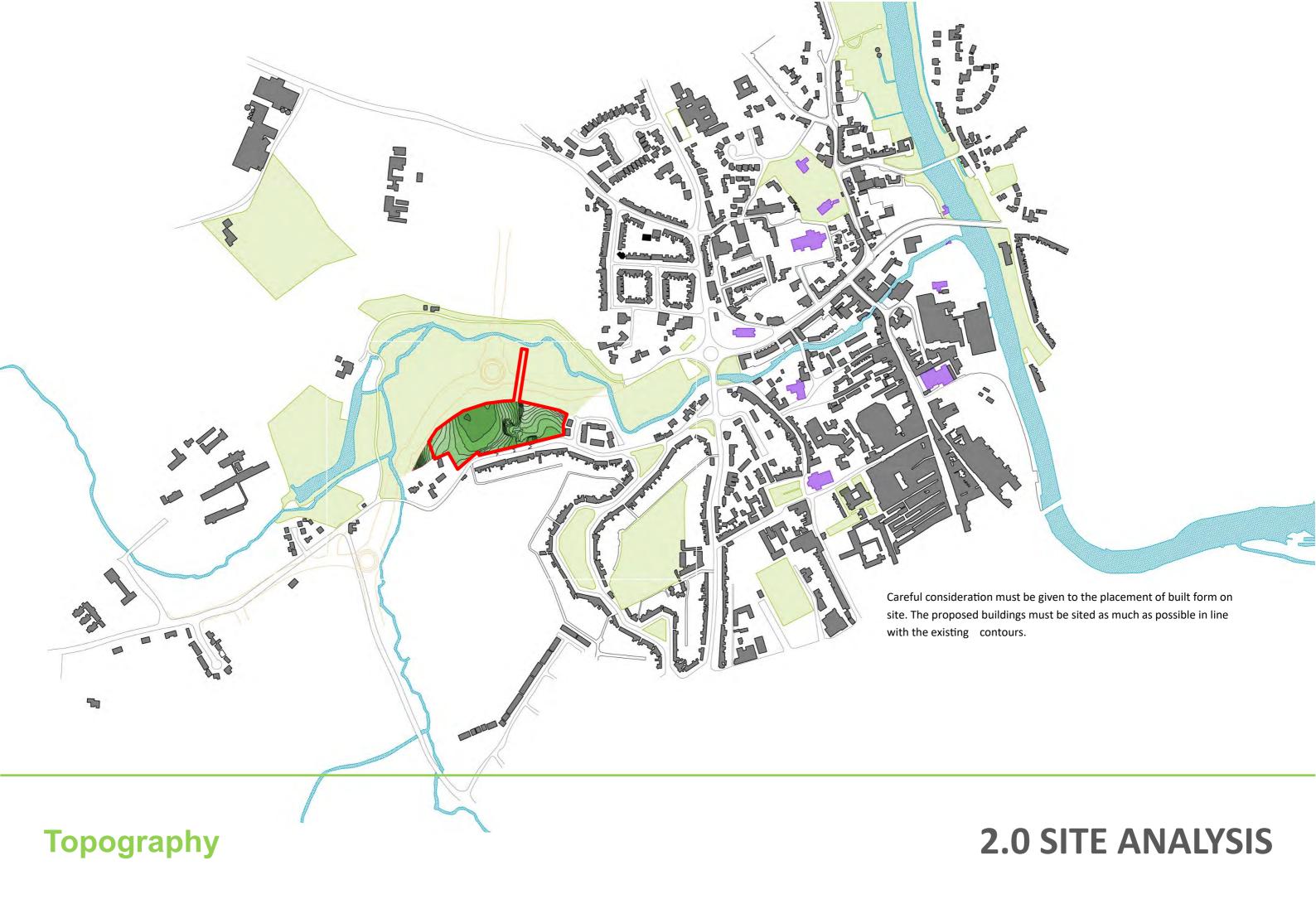


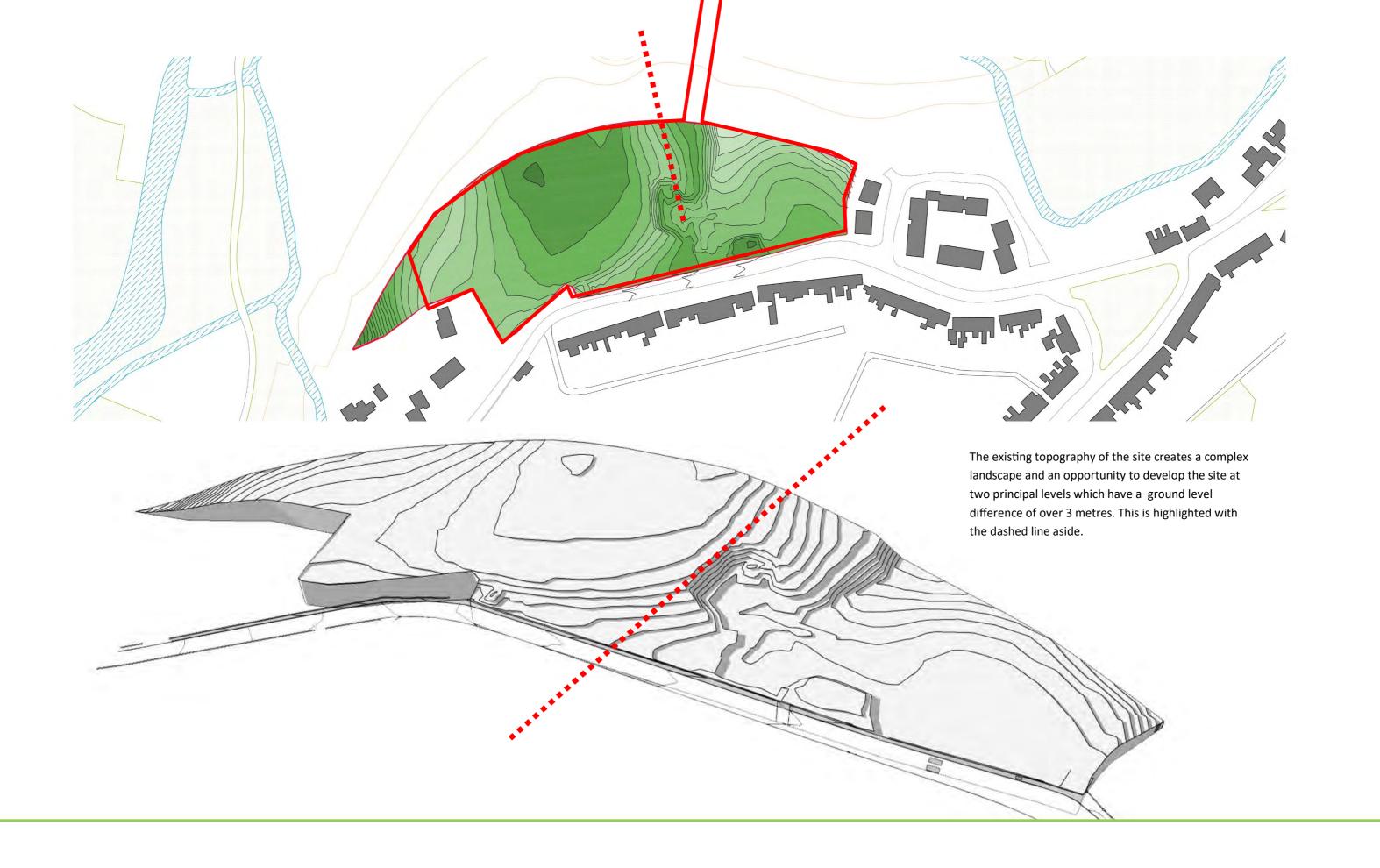


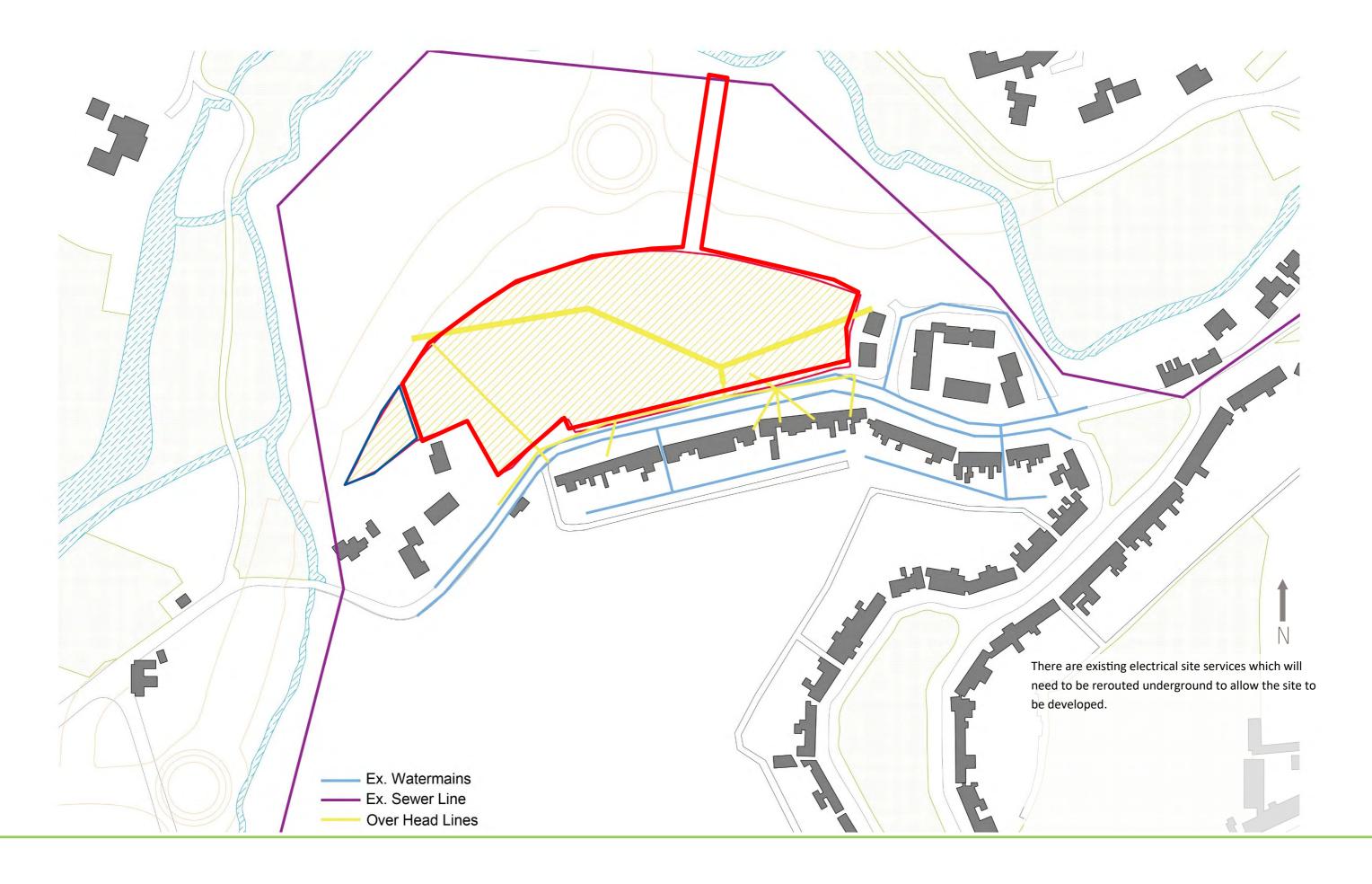
PRAI map aside. Client to confirm site boundary.

Design team have worked on the basis of boundary information provided at appointment, highlighted on the attached map in blue.









**Services** 

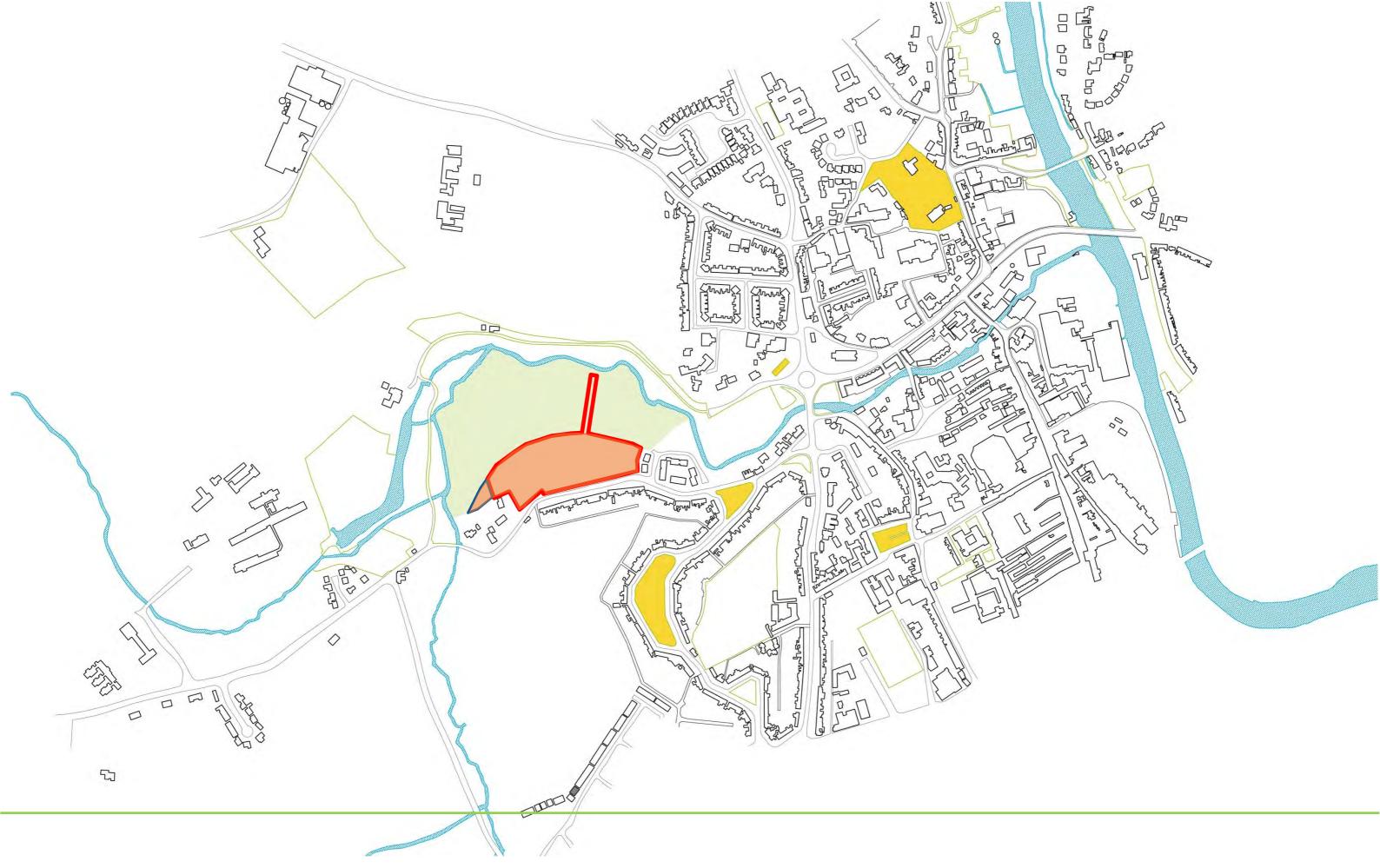
# 2.0 SITE ANALYSIS





**Neighbouring Uses** 

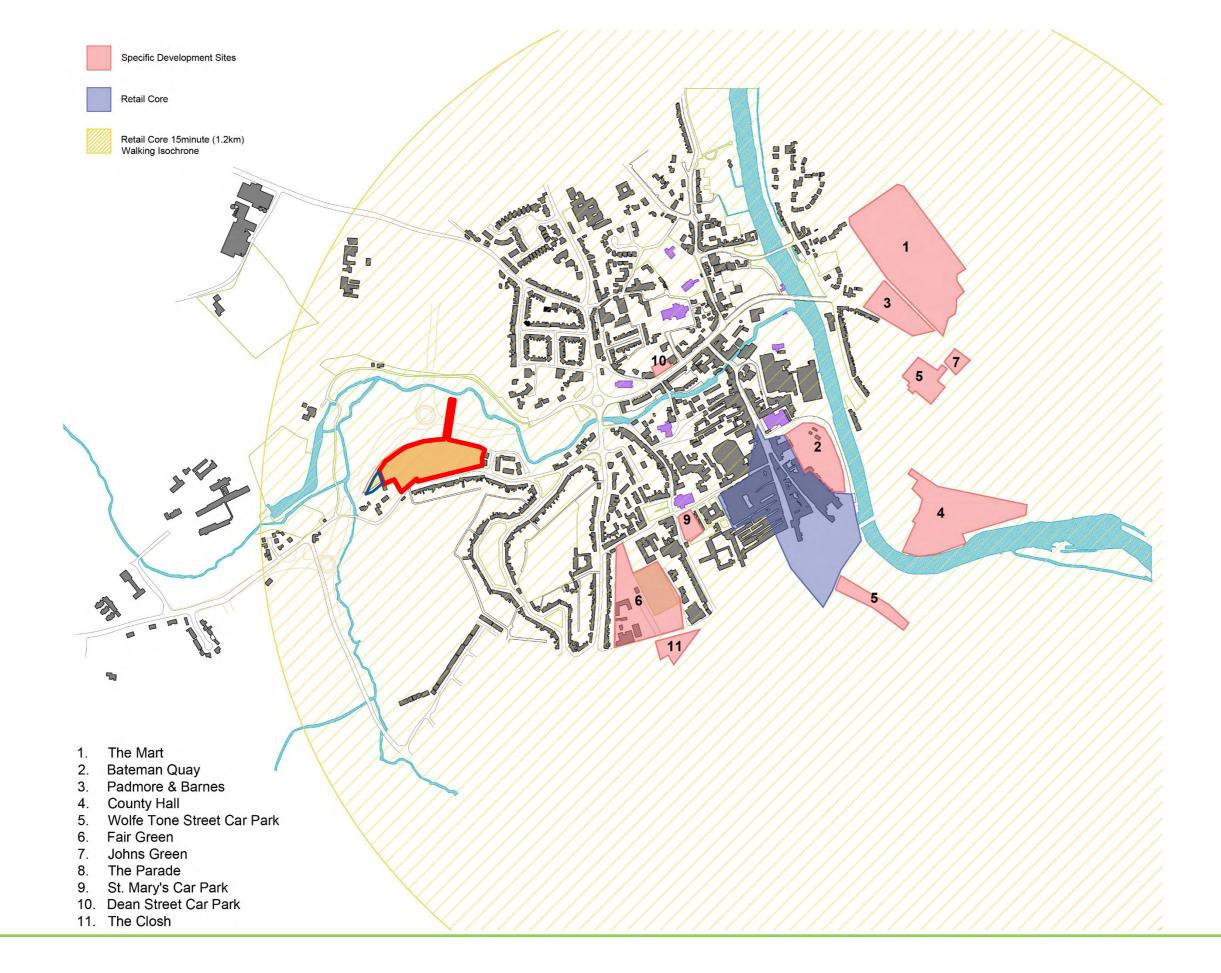
2.0 SITE ANALYSIS

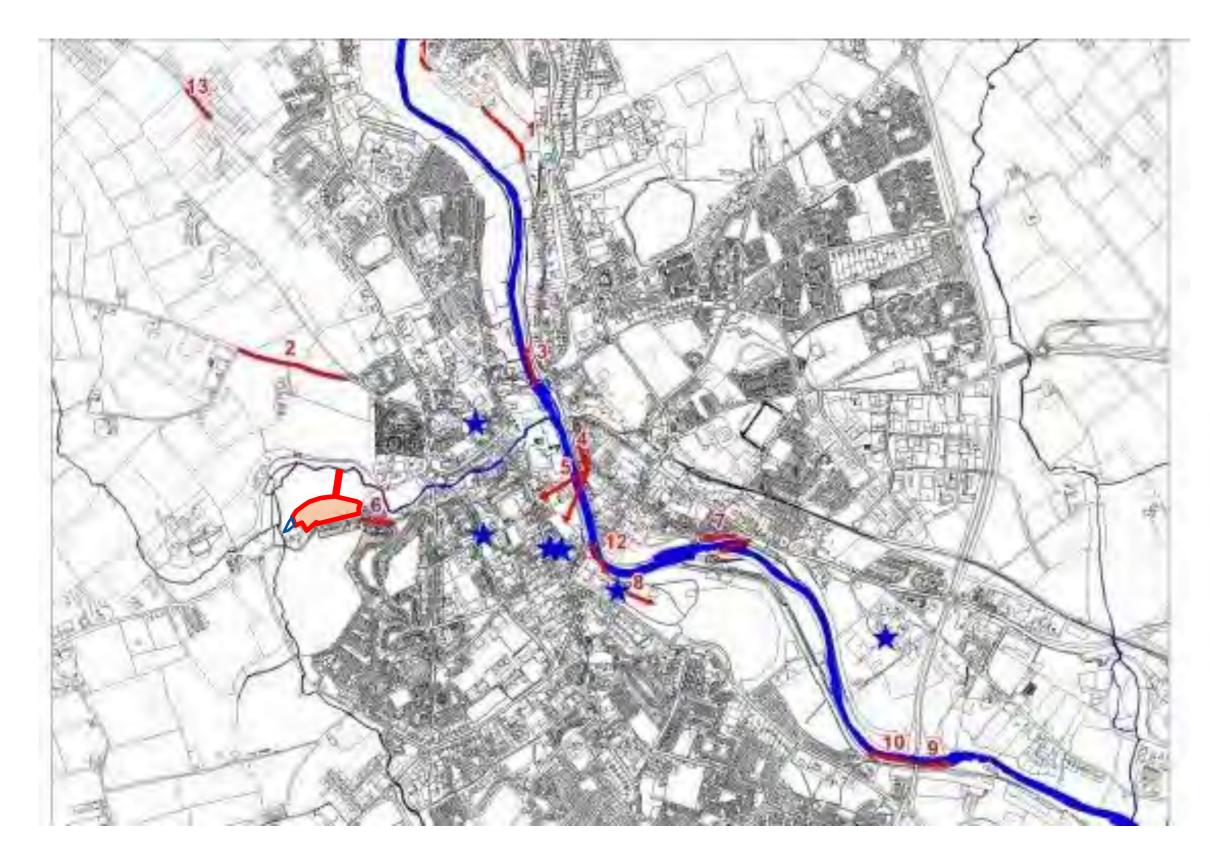


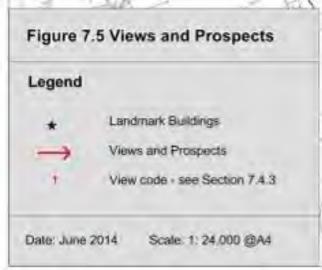
**Neighbouring Uses** 

2.0 SITE ANALYSIS



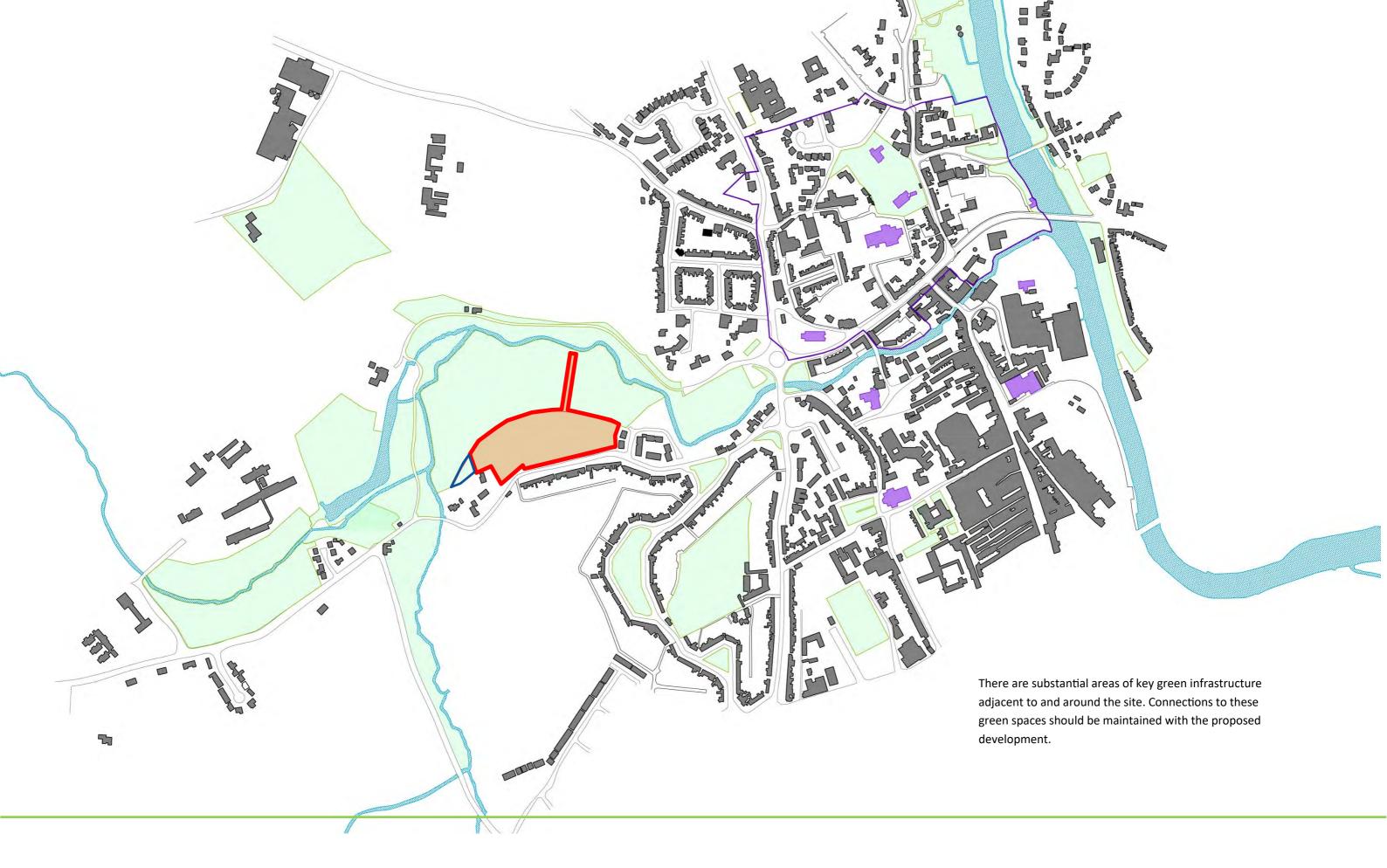






Principal Views to be preserved not on the site but adjacent to the south east corner of the site.

Ref: The Kilkenny City & Environs Development Plan 2014-2020.



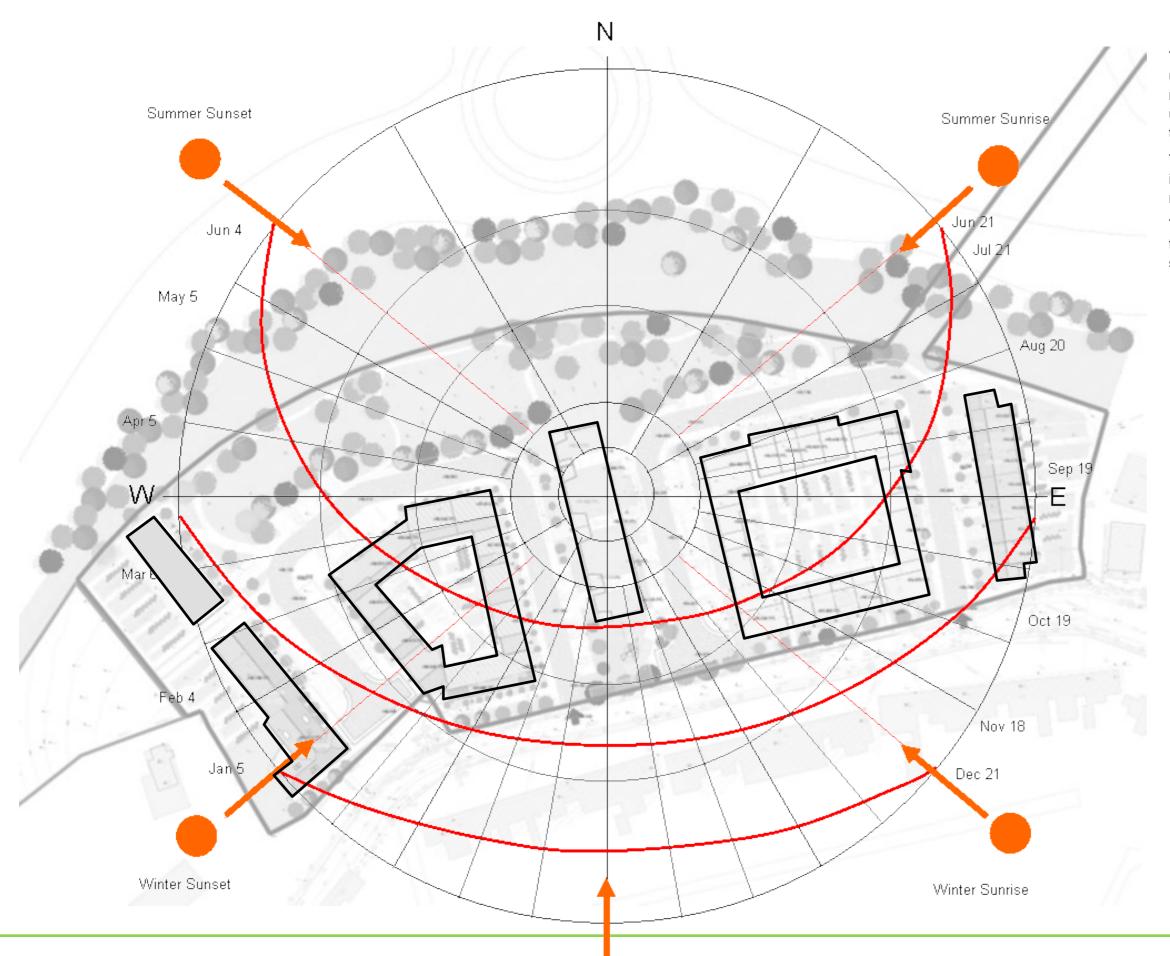
**Proximity to Green Infrastructure** 

2.0 SITE ANALYSIS





A variety of public and private outdoor spaces will be created within the development ranging from public and open green park space to the rear of the site and the hardscaped community and civic space to the South of the site to enclosed private gardens. In between there will be shared access ways to allow movement for bins, bicycles etc. and semi public open space areas accessible to all but with a sense of ownership by the neighbouring dwellings to encourage resident led maintenance and passive protection.

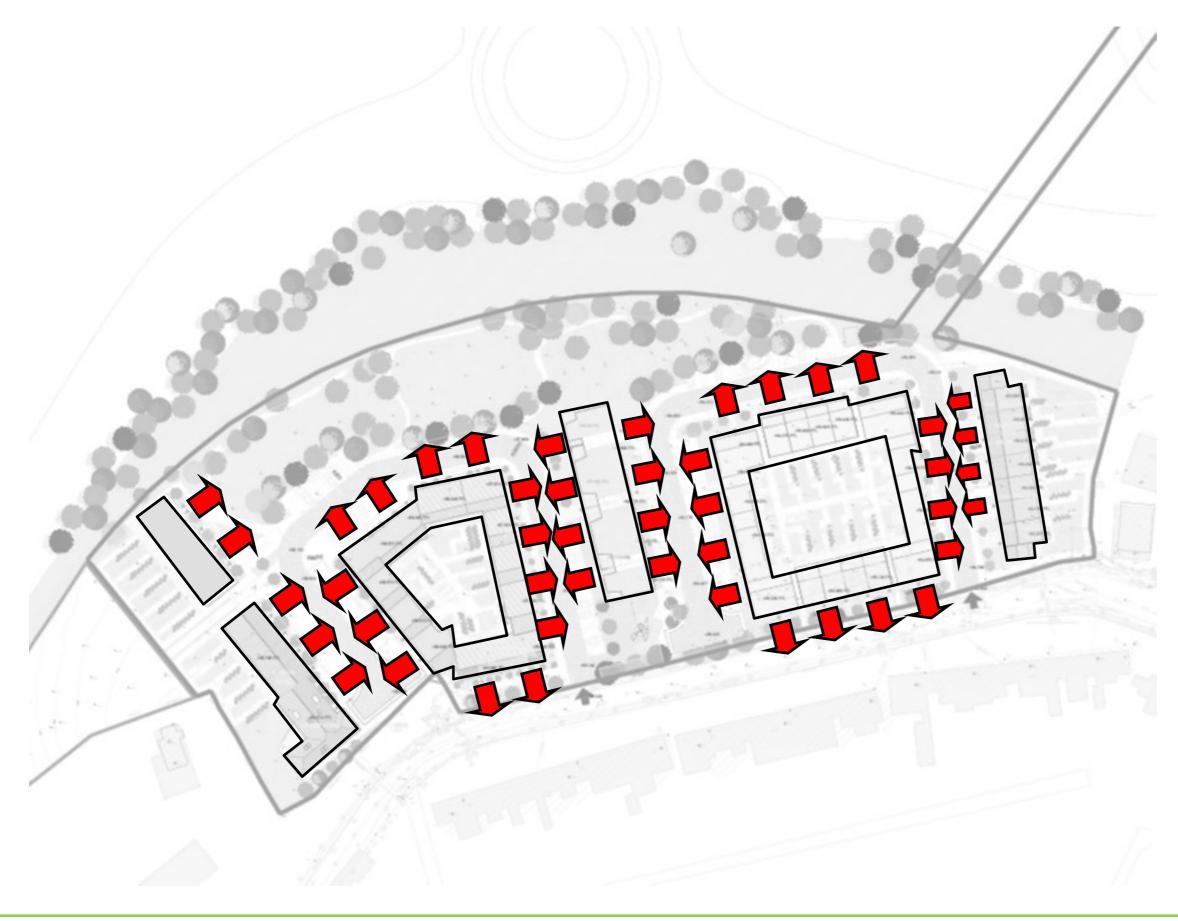


This scheme is designed so that the majority of units have dual aspect. A small number of 1 bedroom apartments do not have dual aspect and these units will have access to private south/west facing terraces.

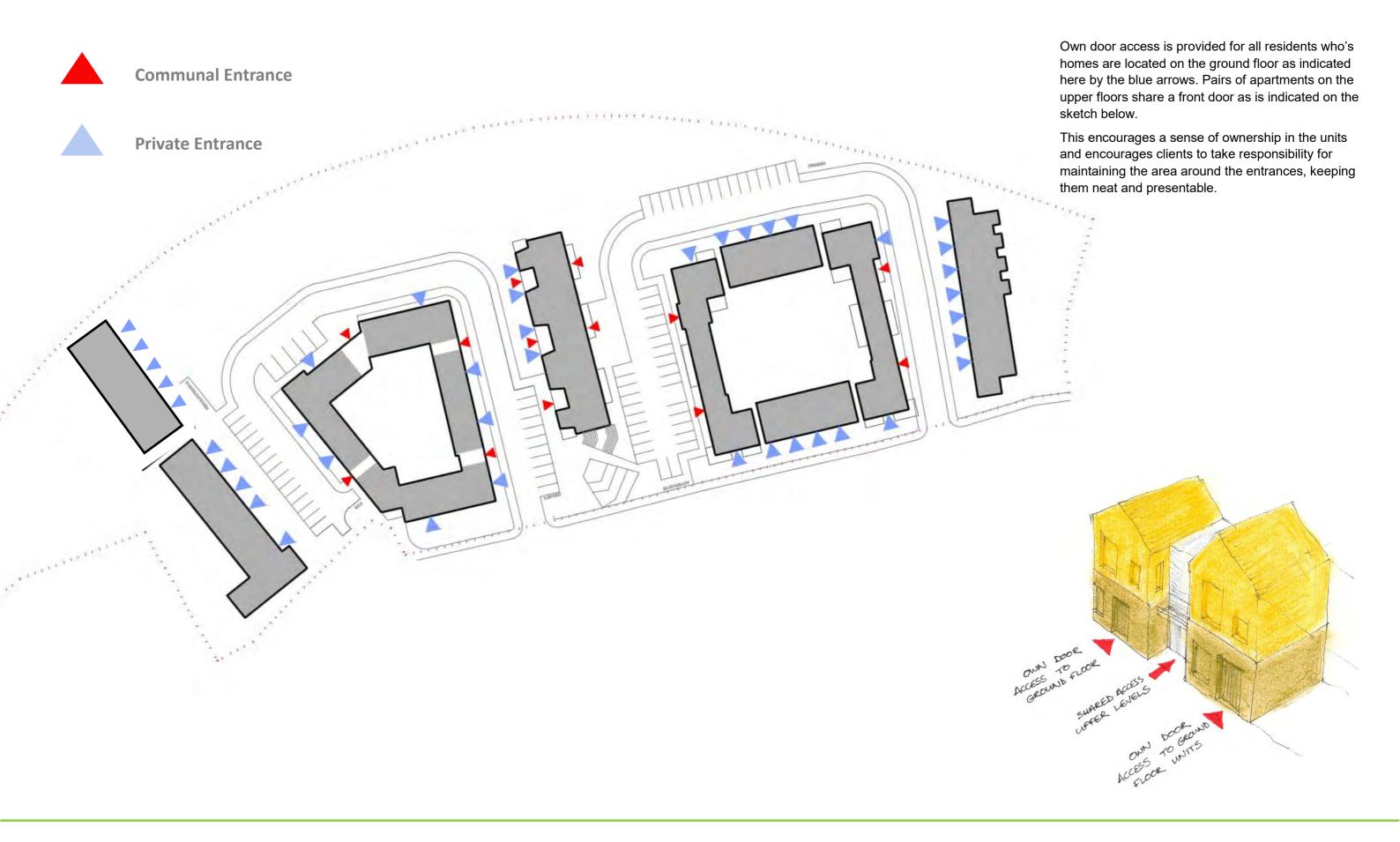
The outdoor civic space is located to the south and is sheltered by the adjacent blocks to the west, north and east.

The linear park is located along the north edge of the site, but is sufficiently large to receive plenty of sunshine when it is available.





All public and semi public areas in this scheme benefit from passive surveillance, indicated here by red arrows. This discourages anti-social behaviour, and encourages a sense of ownership in the residents. Damage by vandalism is reduced and residents have a sense of pride in their surroundings.



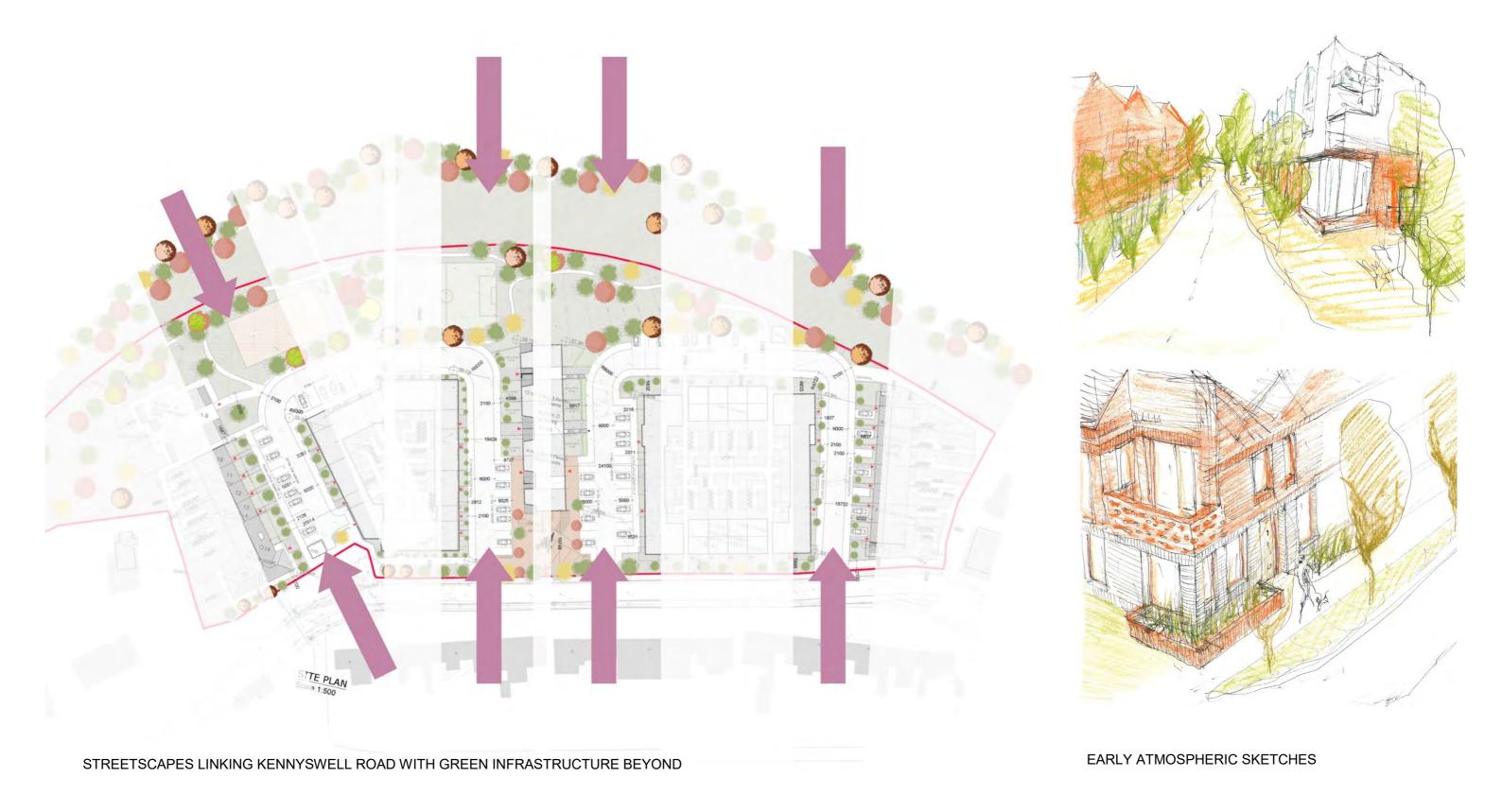
## **OWN DOOR ACCESS**



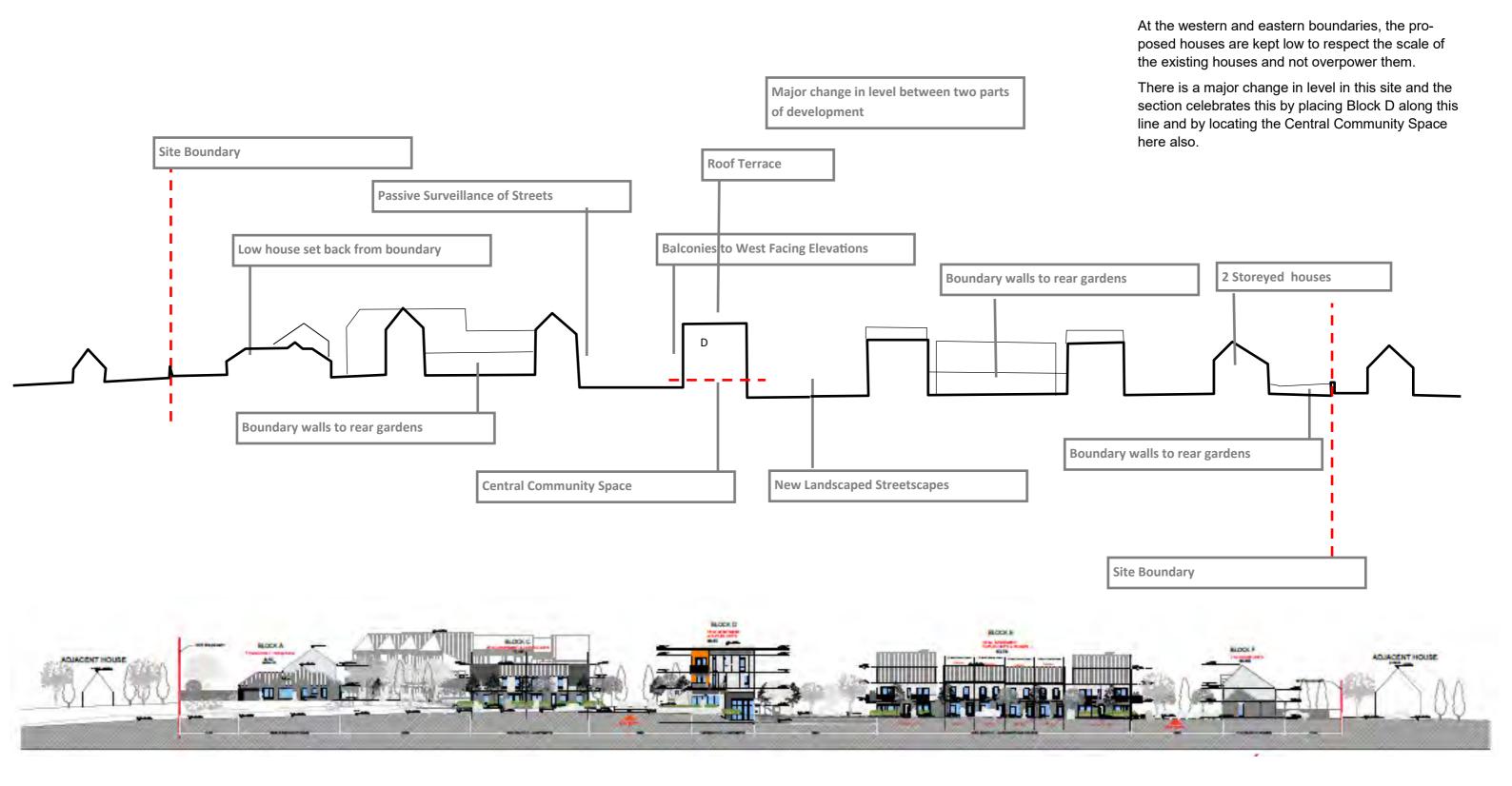
A generous linear park is provided to the rear of this site. This is located so that it will overlook the future Breagagh Valley Park, and form a visual link across the potential future CAS Roadway. The park will have space for a children's play area. It will have winding pathways and generous tree planting.

Trees and other planting will be provided along the access roads to the residences. The boundary to Kennyswell Road will be planted.





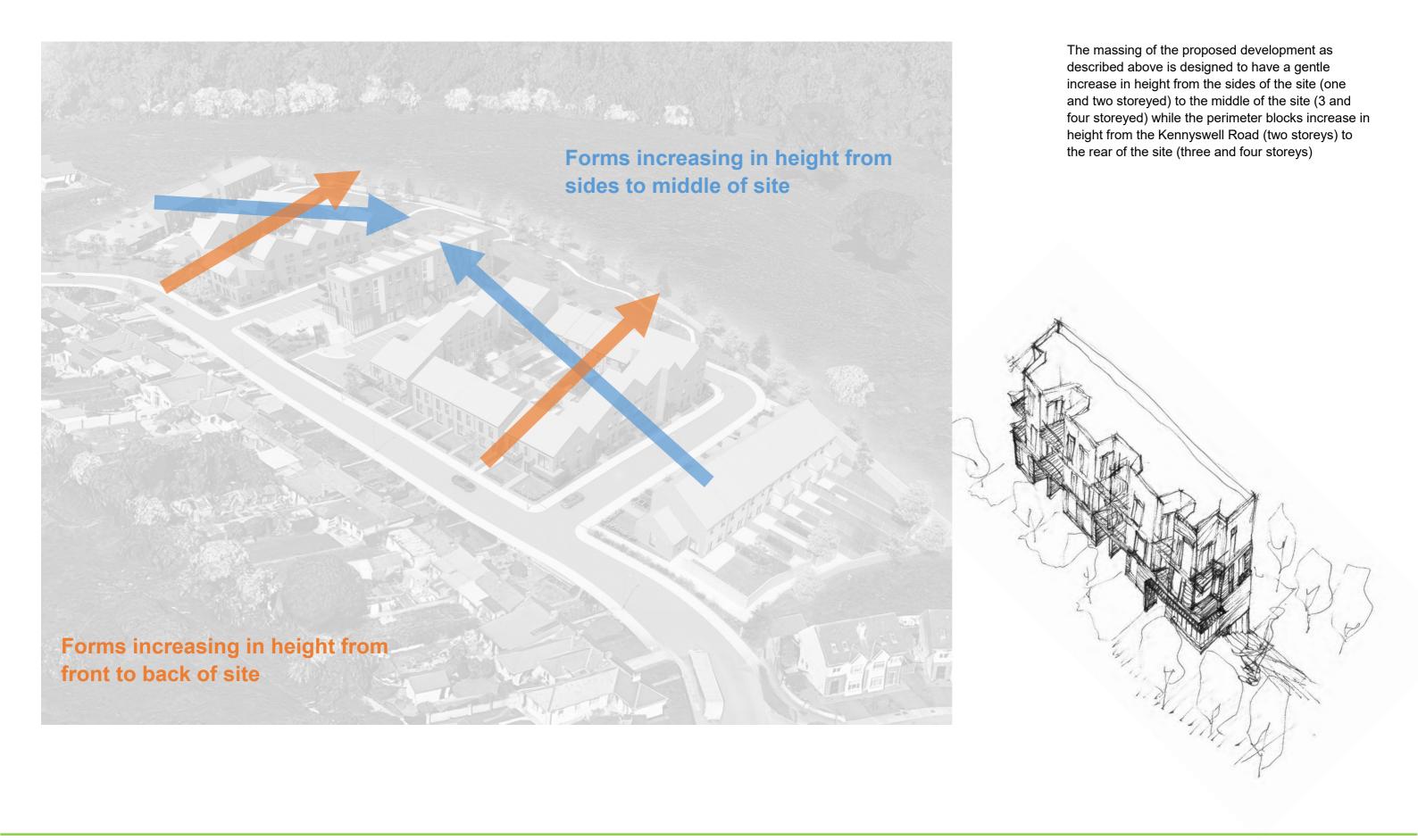
## **NEW STREETSCAPES**



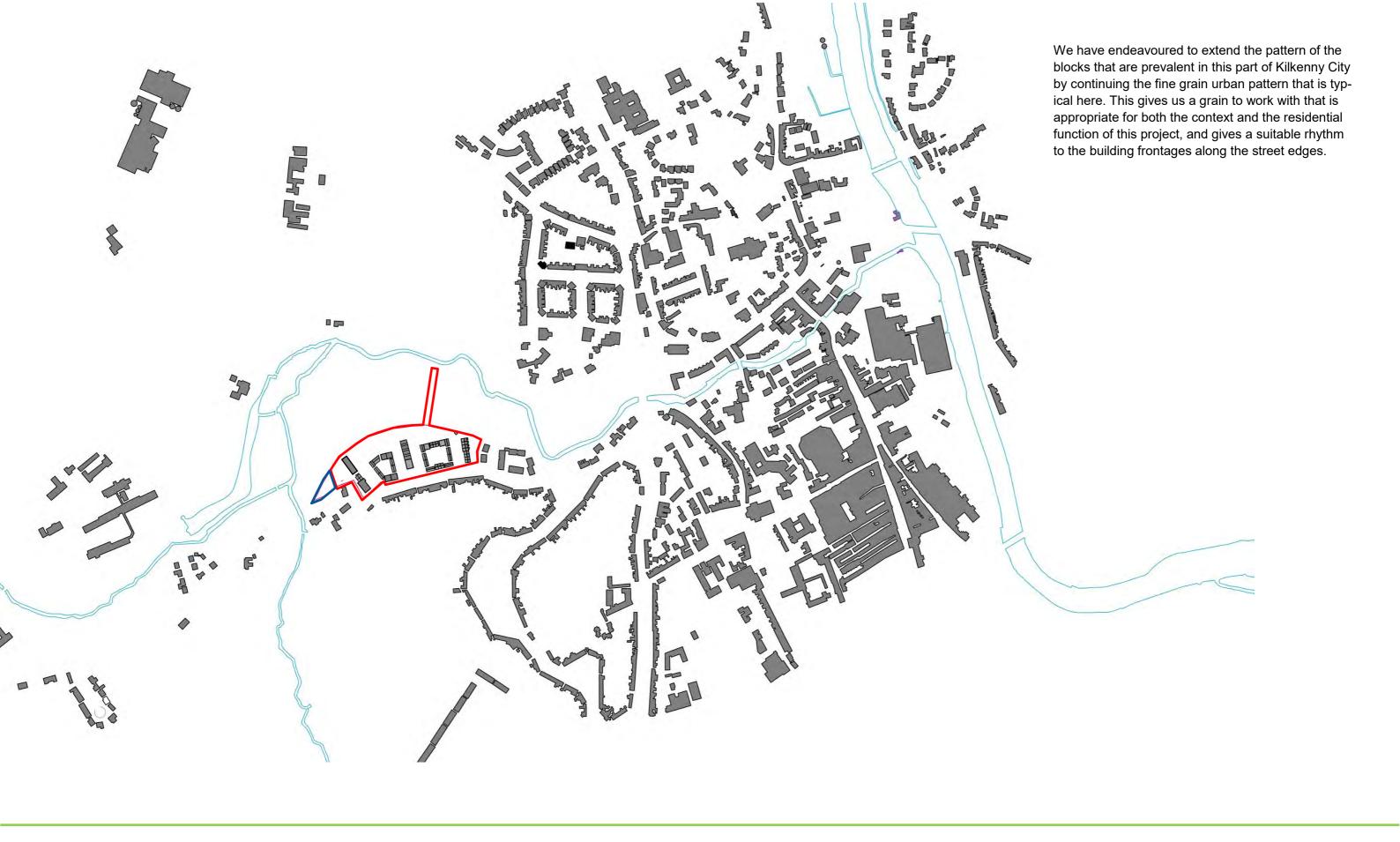
### **SECTION**



A variety of unit types are provided. Many of the units are universally designed. A mixture of sizes of units are provided from single person homes to units for larger families.



#### **MASSING**





This assessment of the proposed project has been carried out in accordance with "Urban Design Manual – A Best Practice Guide" published by the Department of Environment, Heritage and Local Government in May 2009.

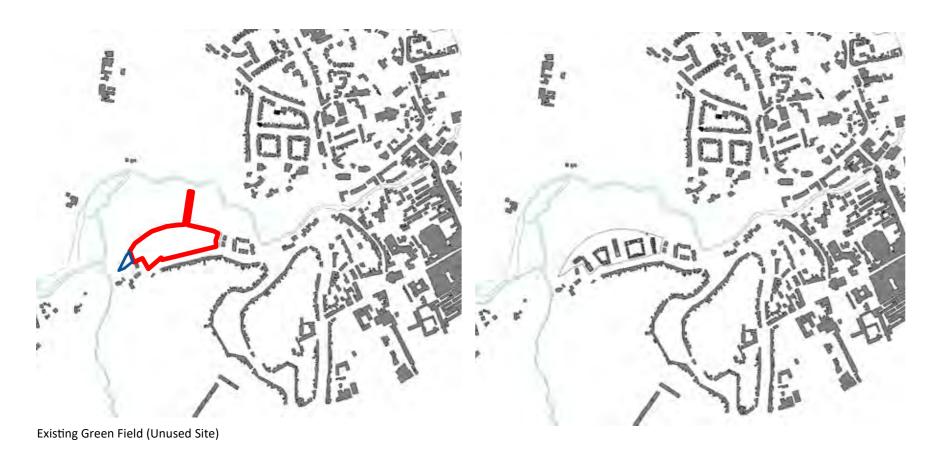
The Manual was produced to accompany the "Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas" also published by the Department of Environment, Heritage and Local Government in May 2009.

The Guide provides "12 Criteria" with which to assess the design proposal from a Neighbourhood, Site and Home design point of view. The 12 Criteria are outlined in Figure 1 and these are Context, Connections, Inclusivity, Variety, Efficiency, Distinctiveness, Layout, Public Realm, Adaptability, Privacy and Amenity, Parking and Detailed Design.

Figure 1 – The 12 Criteria.

From "Urban Design Manual – A Best Practice Guide", Department of Environment, Heritage and Local Government, May 2009.

## 4.0 URBAN DESIGN PROJECT ASSESSMENT



### The development seems to have evolved naturally as part of its' surrounding.

The concept for the design of the development is to establish an urban grain of a scale and form appropriate to the immediate context and that of the city centre with an increased density which correlates to the housing requirements of Kilkenny City.

The proposed development embeds itself comfortably into the existing urban structure. There would be two principal access points to the site along Kennyswell Road which serves to bisect the development into two smaller parts, ensuring that the forms can remain respectful of the existing urban grain and do not spread beyond the parameters of the local context scale.

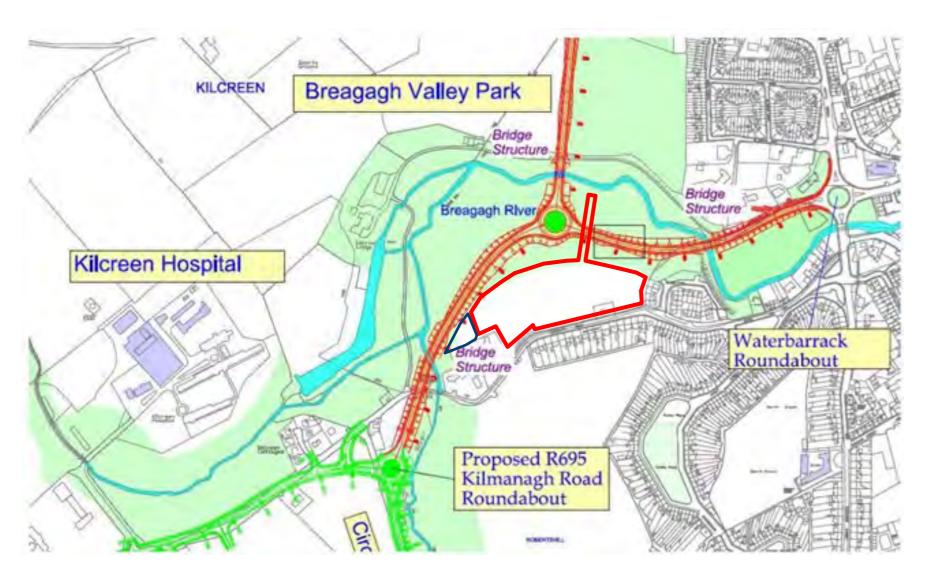
Appropriate increases in density respect the form of buildings and landscape around the site's edges and the amenity enjoyed by neighbouring users.

The design for the development while at a higher density than its immediate neighbours, respects the residential amenity of the neighbours in terms of overlooking, form and scale. The form of the residential units towards Kennyswell Road reduce in height to respect the scale of the adjacent existing properties at the other side of Kennyswell Road. The height and density of the built form increase to the northern edge of the site where there is appropriate open space to provide relief of same.

The proposal includes an urban space which is fully accessible along Kennyswell Road and as such would encourage the local residents from other developments to make use of this space. The community facility is adjacent to the urban space.

Form, Architecture and Landscaping have been informed by the developments' place and time.

The built forms are mostly traditional in their form and in some cases take on an abstracted vernacular form to ensure the architecture remains embedded in the contemporary age in which it would be constructed. The roof forms are principally focused towards ensuring that there will be adequate surface area facing south to accommodate solar panels and simultaneously allowing the built form to comfortably reduce in height towards the south, thus encouraging plenty of natural light and sun to penetrate the courtyards of the larger blocks. While at the same time reducing the scale towards the lower existing residences along the south edge of Kennyswell Road.



## The development positively contributes to the character and identity of the neighbourhood.

The planned expansion of the road network and the creation of the Breagagh Valley Park will effectively enclose a pocket of land between the Kennyswell Road and the proposed park / roadway which will define the boundary of this part of the city. It is therefore deemed appropriate to develop the lands in an "urban" manner to create an identifiable community of critical mass incorporating the existing houses along Kennyswell Road and the adjoining Breagagh Court residents. The proposed location of community facilities and a community urban space on the edge of this development will provide a focal space for the entire pocket community. Similarly it is proposed to locate a piece of public artwork within the community space (funded by "one per cent for Art") which hopefully will be reflective of the history of the community and will act as an identifying marker for the community.

## Appropriate responses are made to the nature of specific boundary conditions.

First and foremost the development has been designed to provide an "Urban Edge" to the Kennyswell Road and with the exception of the central focal building (which is set back from the street) the buildings along Kennyswell Road are lower than buildings to the rear to bridge the difference between this higher density development and the very low density single storeyed housing on the opposite side of the road.

The "Urban Edge" is appropriately punctured by "streets" running perpendicular to the Kennyswell Road which act as physical and visual connectors between Kennyswell Road and the proposed open space / Breagagh Valley Park beyond.

Traditional housing is located at both the East and West ends of the site "backing on" to adjoining existing housing development. The proposed dwellings at the eastern end are predominantly two storeyed (with allowance for attic rooms at the Northern end of the block). At the West end the buildings step down to the predominantly single storeyed group home adjoining the existing large single storeyed dwellings on the Northern side of the Kennyswell Road.

## There are attractive routes in and out for pedestrians and cyclists.

The development has been particularly designed to be permeable and pedestrian / cycle friendly. There are two separate vehicular access points proposed, one at the lower eastern end of the site and one at the higher Western end. The two separate parts of the development are linked by pedestrian routes at the North (Open Space / Park) and South (Community Urban Space) ends of the central focal building.

Streets within the development are designed to be very short before vehicles encounter 90 degree turns which should mean that traffic within the development will be forced to drive very slowly making the whole more pedestrian and cycle friendly.

A very significant provision for cycle parking and storage has been incorporated into the development.

## The development is located in or close to a mixed use centre.

The earlier site analysis section of this report showed the site in relationship to the historic urban core of the city, proximity to retail and mixed use facilities and proximity to existing green spades. The site is extremely well located within a short walk of all the city's amenities.

#### The developments layout makes it easy for a bus to serve the scheme.

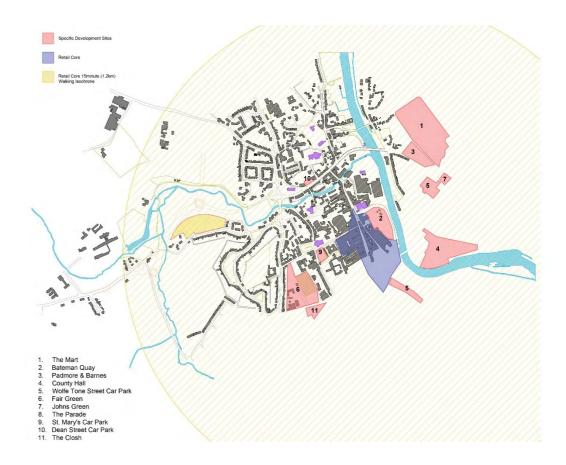
The development is not of a scale (especially as it is broken into two separate portions as to warrant buses passing through it.

# The layout links to existing movement routes and places people will want to get to.

The Kennyswell Road connects directly to the City Centre and provision has been made for the development to directly connect with the planned Breagagh Valley Park in the future.

# Appropriate density, dependant on location, helps support efficient public transport.

As an inner city site the residential development has been designed at an appropriate scale and density to facilitate the most number of residents within walking distance of the City Centre and its' amenities. The scale and density of the development will enhance the potential for viable public transport within the Kennyswell Road / Fatima Park city neighbourhood.



Proximity to City Centre and Retail Core



## 4.2 CONNECTIONS

## New homes meet the aspirations of a range of people and households.

The development will provide a diverse range of housing types to support varying needs/aspirations of people hoping to live there. From one, two and three bedrooms apartments and duplexes the site will also offer a range of two, three and four bedroom houses. In addition the scheme includes a large group home. In this regard this development will be one of the most diverse social housing scheme being developed in the Country at this time.

## Design and Layout enable easy access by all.

The range of unit types and the layout of the development will all be in compliance with the building regulations. Ground floor apartments will be specifically designed to be suitable for residents with greater needs.

Apart from the group home there are a diverse number of units designed to comply with Universal Design Guidelines. All units will to some extent incorporate aspects of Universal Design guidance.

There is a range of public, communal and/or private amenity spaces and facilities for children of different ages, parents and the elderly.

The proposed development includes a variety of open spaces ranging from enclosed private gardens, balconies and ground floor patio areas, to communal open space overlooked by adjacent residential blocks.

Specifically, two pieces of public open space will be created:

- A predominantly hard paved urban community space relating directly to the community facilities within the central focal building and fronting Kennyswell Road and accessible from both parts of the overall development.
- 2. A linear green space along the Northern boundary of the site intended to become contiguous with the remaining lands between the site and the proposed roadway and ultimately linking with the Breagagh Valley Park. Here there will be seating and play equipment fitted to facilitate the use of external space by people of all ages and interests.

# Areas defined as public open space that have either been taken in charge or privately managed will be clearly defined, accessible and open to all.

The intention of the design is one embedded in connectivity and an urban response to the context, providing key urban spaces managed by the Local Authority, clearly defined, accessible and open to all. In some areas the topography of the site means that access to all areas for the physically impaired will not be possible but safe routes through these areas have been created to mitigate any possible sense of exclusion.

New buildings present a positive aspect to passers-by, avoiding unnecessary physical and visual barriers.

The built forms at all boundaries create a positive threshold to the street. The houses and apartments engage at all floor levels with the adjacent existing street and the scheme has been specifically designed in a way that encourages passers-by to view into and through the site to the propose Breagagh Valley Park to the North.



Viariety of forms and Residential House Types from houses to apartments and duplex units

# Activities generated by the development contribute to the quality of life in its' locality.

Although there are urban spaces provided throughout Kilkenny there are few in this part of the city. A Community Space for use by residents and the wider community will be provided at ground level for meetings / classes etc. There will also be a crèche located within the development but at the South End of the central focal building so that it is easily accessible from the Kennyswell Road.

## Uses that attract most people are in the most accessible places.

The entire development is designed to be very accessible. Houses will have full disabled access to ground floors while all apartments will be accessible by lifts. Routes through to linear green space at rear of development are being provided all of which can attract people into and through the development. The crèche and community rooms are both located next to the Kennyswell Road.

## Neighbouring uses are compatible with each other.

The development will be sited in a predominantly residential context. (*Please see Neighbouring Uses Map in Site Analysis section earlier*)

## Housing types and tenure add to the choice available in the area.

There are few apartments and four bedroom houses offered in this part of the city and therefore the development will contribute to the diversity of housing types and tenure available in the area.

Opportunities have been taken to provide shops, facilities and services that complement those already available in the neighbourhood.

Because of the developments close proximity with the commercial city centre it was not considered necessary to include more shops and services such as that on site.

The proposal looks at the potential of higher density taking into account appropriate accessibility by public transport and the objectives of good design.

The Gross Area of the site is 2.2221 Hectares and the Nett area (excluding the services wayleave is 2.1364 Hectares and 86 dwellings are provided (including the group home as 1 unit not 9 as per DoHPLG calculations). This equates to a density of 40.2 units per hectare which is greater than the 35 per Hectare minimum density for urban areas outlined in national guidance.

The density being proposed is appropriate to site of its urban nature and proximity to the city centre but this is very significantly greater than the density of the surrounding extant residential developments. We hope that this will lead to the development being seen as the "core" of this pocket community.

Landscaped areas are designed to provide amenity and biodiversity and protect buildings and spaces from the elements and incorporate sustainable urban drainage systems.

The strategy employed for the landscaping across the site will incorporate sustainable urban drainage systems. The built forms on the site will be somewhat protected from Northern cold winds by the planting within the open space which is predominantly at the Northern end of the site.

Buildings gardens and open spaces are laid out to exploit the best solar orientation.

All buildings will be oriented to best embrace the natural light and heat the site offers in abundance. Most gardens and terraces are south or south west facing. And the public spaces across the site have access to morning, evening and midday sun. Buildings step down towards the South to let as much light into enclosed garden spaces as possible while roof profiles are specifically designed to allow for the efficient incorporation of photovoltaic panels to comply with NZEB.

The scheme brings a redundant building or derelict site back into productive use.

As mentioned above the site is currently unused and has been this way for quite some time. Two small derelict unused buildings on the site will be replaced with this new development. The proposal will bring a new lease of life to this part of the city and in doing so reinforce the link between the city centre and the community in this area.

Appropriate recycling facilities are provided.

Appropriate recycling facilities will be provided within houses and apartments and as part of the refuse on site for all dwellings.

40.7 Units per Hectare



## The scheme is a positive addition to the identity of the locality.

The scheme in our opinion will act as the "core" of the Kennyswell Road community. The civic community space proposed at the centre of the Kennyswell Road frontage of the development will provide a sense of focus for the community as a whole. The proposed public artwork within that space can further provide a sense of identity for this community.

The layout makes the most of opportunities presented by existing buildings, landform and ecological features to create a memorable layout.

Existing buildings are not a significant feature on this site except insofar as the proposed development relates to the adjoining low rise residential developments discussed above. However, the landform has been a very significant generator of the form of the development with the development split into two separate pocket communities with the central focal building "bridging" the two along the line of the break in the landform. Ecologically the tree line and river beyond the site to the North will form part of the Breagagh Valley Park and the development has been designed to integrate with this park in the future.

The place has recognisable features so that people can describe where they live and form an emotional attachment to the place.

The site has distinctive and recognizable topography. Simply put, the western portion of the site is higher than the eastern end by 3m. This scheme retains this distinguishing site feature and celebrates it by placing Block D containing the community facilities (along with 16 housing units) along the line where the 3m difference occurs.

Block D which straddles the level difference is set back further from the southern site boundary than the other adjacent blocks, allowing for the creation of an outdoor public communal space, another recognizable feature of this scheme.

This site will also provide a unique and generous linear park to its northern boundary, a place where all members of the community can come together to enjoy outdoor activities.

## The proposal successfully exploits views into and out of the site.

The site layout creates 4 avenues which run from North to South across the site. The proposed housing units are situated along these tree lined landscaped boulevards which create vistas of the proposed linear parkland to the northern portion of the site and beyond to the Breagagh Valley Park and where appropriate the units look over these views to the Valley Park.

There is a discernible focal point to the scheme or the proposals reinforce the role of an existing centre.

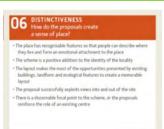
This scheme provides two discernible focal points.

The first focal point is the outdoor public communal space to the south of Block D. This space will provide an opportunity for casual or organised community meetings or events. It could be used as an outdoor performance space or simply as a place to sit and enjoy the sun and chat to other neighbours. It is proposed that a work of art be located here which will also act as a recognizable feature in this development.

The second focal point is the green recreational area provided alongside the northern site boundary. A generous parkland will be created here with opportunities for walks, children's play area and possibly a tennis court and a ball court. It will be possible to provide planting areas for the inhabitants to enjoy gardening, perhaps tending a communal herb garden or the like. This park will be a second significant amenity for the residents of this scheme.



The HUB Community Facilities and Civic Space



## 4.6 DISTINCTIVENESS

Layout aligns routes with desire lines to create a permeable interconnected series of routes that are easy and logical to navigate around.

The proposed development will have two vehicular access points from the Kennyswell Road, one to the lower eastern end of the site and one to the upper western end of the site. The site is linked by pedestrian routes through the parklands and via the open air community space. The development will be simply organised along 4 new streets running north south.

The layout focusses activity on the streets by creating active frontages with front doors directly serving the street.

Active frontages are prominent throughout the development.

For all Houses, the front doors serve the street directly as do the principal access points for all apartment buildings.

Traffic speeds are controlled by design and layout rather than by speed humps.

The materiality as well as the layout of the built form and landscape design will discourage fast movement across the site and so calm any traffic that needs to enter the site. Streets within the development are not long enough to allow cars build up excessive speed before encountering a right angled turn.

The streets are designed as places instead of roads for cars, helping to create a hierarchy of space with less busy routes having surfaces shared by pedestrians, cyclists and drivers.

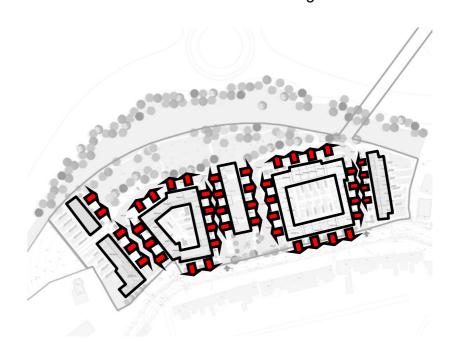
Strong active frontage, on-street parking and a soft edge of threshold landscaping and lighting will create a sense of the 'street as a place', rather than that which is dominated by cars.

The materiality of the street, footpaths and routes through the site will go further to reinforce the nature of these spaces as 'places'.

Block layout places some public spaces in front of building lines and some semi private space to the back as communal courts.

There are shared public spaces throughout the site. There is a shared community space provided to the front of Block D. A generous shared green park runs along the entire northern boundary of the site.

Blocks C&E surround a series of private and semiprivate gardens for the residents of those blocks. Blocks A,B & F have private rear gardens while the residents of Block D have a mixture of rear gardens or balconies.



Active frontages throughout scheme

All public open space is overlooked by surrounding homes so that this amenity is owned by the residents and safe to use.

All public spaces receive passive surveillance from the principal living spaces of adjacent houses and apartments.

The public realm is considered as a usable integrated element in the design of the development.

A variety of open spaces are provided which encourage connectivity and permeability through the site while meeting the amenity needs of the residents and other occupants of the site.

Children's play areas are sited where they will be overlooked, safe and contribute to the amenities of the neighbourhood.

The children's play spaces are located within the Northern linear greenspace area of the site and overlooked by adjacent houses.

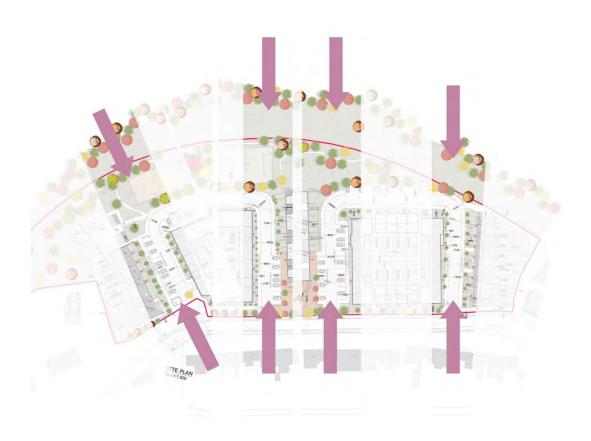
There is a clear definition between public, semi private and private open space.

The private open spaces are clearly defined by low walls and enclosures with railings and/or mesh partitions.

# Roads and parking areas are considered as an integral landscaped element in the design of the public realm.

The principal north/south streets through the site are integral in the design and layout of the landscape.

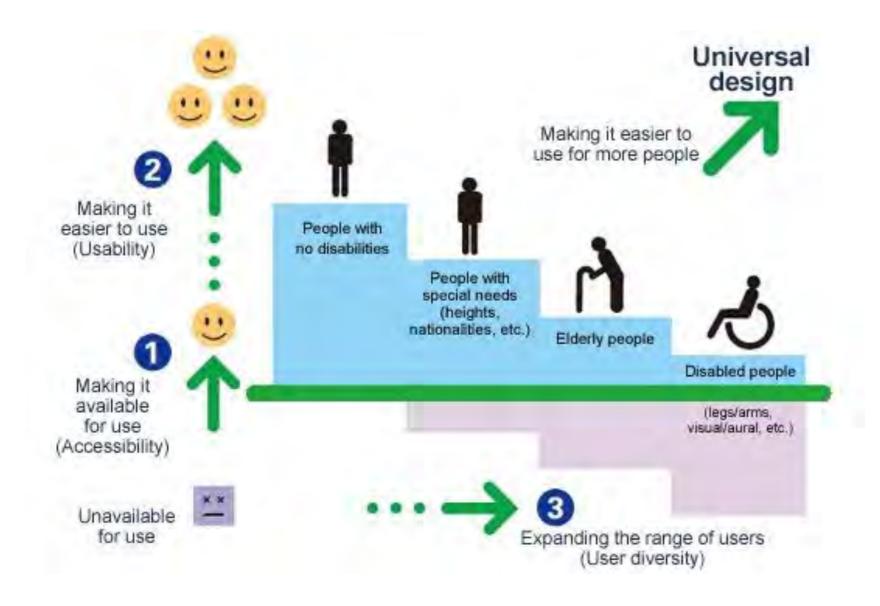
Parking is mostly in shared parking areas adjacent to the blocks, and these are tucked neatly into the proposed landscaping and distributed around the site. Some in curtilage parking is also provided.



North—South Streets and Vistas



# 4.8 PUBLIC REALM



Designs exploit good practice lessons such as the knowledge that certain house types are proven to be ideal for adaptation.

Many units in this scheme have been planned as fully accessible universally designed homes. Block A is a 5 bed group home suitable for a carer and 4 wheel-chair users. Block C includes 1,2 and 3 bedroom apartments which are fully accessible. Block F incorporates large units which can be extended to provide accessible accommodation for 2 further inhabitants. Other houses and apartment types are capable of adaption at different scales.

The homes are energy efficient and equipped for challenges anticipated from a changing climate.

All homes will be designed to NZEB standards and will be equipped where appropriate for challenges anticipated from a changing climate.

Homes can be extended without ruining the character of the types, layout and outdoor space.

Houses may be extended subject to planning conditions and design considerations. Attention would need to be given to overlooking at the rear of existing properties and design consideration for the proximity of the buildings to the neighbouring properties. Some units at the ends of blocks have scope for special extensions, such as Block F as explained above.

The structure of the home and its' loose fit design allows for adaptation and sub-division such as the creation of an annexe or small office.

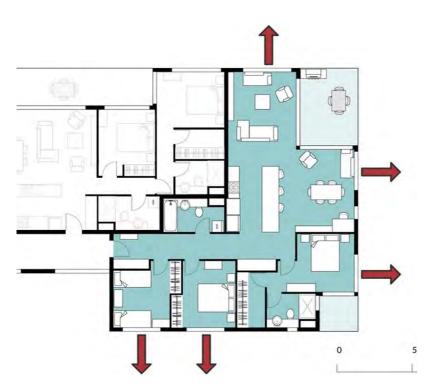
The houses will offer small rooms on the upper level suitable for a home office. As above the houses could be extended subject to planning conditions and design considerations.

Space in the roof or garage can be easily converted into living accommodation.

Not applicable to this development.



## 4.9 ADAPTABILITY



Typical Dual Aspect Apartment

## Each home has access to an area of useable private outdoor space.

Townhouses have rear gardens, ground floor duplex units have private terraces / patios and apartments and upper floor duplexes have balconies / winter gardens.

The design maximises the number of units with dual aspect.

Where possible the majority of units have dual aspect. This option will not be practical or spatially efficient for some one bedroom apartments and where this is the case it will be ensured that these units have access to private south/west facing terraces.

Homes are designed to prevent sound transmission by appropriate acoustic insulation or layout.

Appropriate acoustic insulation and design considerations have been employed in the design to prevent sound transmission.

Windows are sited to avoid views into the home from other houses or the street and adequate privacy is afforded to ground floor units.

There will be landscaped threshold to all ground floor properties providing adequate screening or privacy to all ground floor units. Windows will not be placed in locations so as to allow inappropriate views in the home from other houses or the street.

The homes are designed to include adequate storage including space within the home for sorting and storage of recyclables.

All residential units are designed to comply with the requirements of "Quality Housing for Sustainable Communities".



## 4.10 PRIVACY AND AMENITY

Appropriate parking is on-street or within easy reach of the home's front door.

Parking spaces are grouped within landscaped areas to allow easy and adjacent access from the cars to all units.

Although discouraged in order to achieve a high quality urban realm and to facilitate children playing safely away from traffic, there will be access by car to the front door at ground level of some units, i.e. within curtilage parking.

Parked cars are overlooked by houses, pedestrians and traffic or stored securely with a choice of parking appropriate to the situation.

On street parking provided will be overlooked by cars, pedestrians and traffic.

Parking is provided communally to maximise efficiency and accommodate visitors without the need to provide additional dedicated spaces.

The development has been designed on this basis.

Materials used for parking areas are of similar quality to the rest of the development.

This is the case.

Adequate secure facilities are provided for bicycle storage.

A variety of bicycle storage is provided with simple outdoor locking racks in the open spaces for visitors with dedicated secure bicycle parking within courtyard areas.



# The materials and external design make a positive contribution to the locality.

As above, the materiality of the proposal intends to be responsive to the context and respectful of existing materials in the area. The strength of the predominant brick which relates back to the industrial heritage of the city will contribute positively to the locality. In addition to the materiality the quality of the built forms and external design & landscaping will provide an utterly improved environment for the locality.

## The landscape design facilitates the use of public spaces from the outset.

The development of the residential portion of the proposal will incorporate the contemporaneous development of the adjoining public, semi private and private open spaces.

# Design of the buildings and public space will facilitate easy and regular maintenance.

Opens spaces are immediately accessible for maintenance purposes and are clearly visible to users of the site and the wider public to encourage their maintenance. Features within the open space and the buildings themselves will be designed to minimise maintenance requirements.

# Open car parking areas are considered as an integral element within the public realm design and are treated accordingly.

This approach has been incorporated into the design of the development.

## Care has been taken over the siting of flues, vents and bin stores.

The design intention is to conceal as much as possible any flues, vents and bin stores from view.





## 4.12 DETAILED DESIGN

# Shadow Study has been prepared to assess the impact of the proposed development on adjoining structures and spaces to determine the extent to which any impact applies at differing times of the year. The shadow study has been prepared using 3D Studio following input of the auto CAD drawings and using the correct azimuth and co-ordinate details for the exact site in question. Diagrams have been prepared showing the shadow impact of the buildings on the horizontal ground plane at the suns highest angle (and therefore least impact) on June 21st, at both equinoxes (Average impact) September 22nd / March 20th and at December 22nd when the low angle of the sun creates the greatest horizontal impact. Note no diagrams are provided for times when the site will be

# 5.0 Shadow Analysis

in darkness.



9.00 AM



11.00 AM



1.00 PM



3.00 PM



5.00 PM



7.00 AM



9.00 AM



11.00 AM

**5.2 21st June** 



1.00 PM



3.00 PM

5.2 21st June



5.00 PM



7.00 PM



10.00 AM



**12.00 NOON** 



2.00 PM



4.00 PM



8.00 AM



10.00 AM



12.00 Noon



2.00 PM



4.00 PM



6.00 PM



View of Eastern perimeter block from Kennyswell Road



View of Upper entrance with perimeter block to left and hub / focal building on right



View of lower (eastern) perimeter block with stepped civic space in the foreground



View looking South towards Kennyswell Road from the Public Open Space



View looking South east from the Public Open Space to houses on Eastern boundary of site



View looking South west from the Public Open Space to houses on Western boundary of site



Aerial view of the overall development with future park to rear of development

1803 - Crokers Hill Kilkenny			va	nDijk Architects			
AREA SCHEDULE							
	G.I.F.A / unit	Quantity	Total units	Total Built Form G			
BLOCK TYPE	(sqm)		per Block	(sqm)			
Block A							
6 Bed Group Home	274	11		274			
3 Bed 5 Person House	107.5	4		430			
			5				
Block B	107.5	5		537.5			
3 Bed 5 Person House	107.8	5	5	557.5			
Place Of the state							
Block C (Footprint = 1105 sqm)	129.6	2		259.2			
3 bed 6 person duplex	147.2	1		147.2			
	58.5	1		58.5			
1 Bed 2 Person Apt	72	1		72			
	64.8	5		324			
AND THE RESERVE OF THE PARTY OF	73.6	1		73.6			
2 Bed 3 Person Apt	76.8	1		76.8			
	88	2		176			
	76.8	2		153.6			
2 bed 4 person apt	85.8	2		171.6			
	88	2		176			
3 Bed 5 Person Apt	93.6	1 1		93,6			
Bed 6 Person Apt	97	4	14	388			
and 2 lift cores with stairs		1					
and 2 stair cores (without lift)				318.39			
			25				
Block D (Footprint =543 sqm)	400.0			200.0			
4 Bed 7 Person Duplex	130.3	2		260.6			
3 Bed 5 Person Duplex	104.5 63	4		418 252			
2 bed 3 person apt	65.1	2		130.2			
I Bad O Base - Aut	46.9	4		187.6			
1 Bed 2 Person Apt	1707			406			
Total community facility (including circulation, WCs and community store)				2.5			
Total circulation (including circulation and stores linked to housing)				416.48			
and arrive miner to nonellig)			16				
Block E (Footprint =1298 sqm)		1					
3 Bed 5 Person House	105.2	8		860.2			
2 Bed 3 Person Apt	88	3		264			
2 Bed 4 Person Apt	88	-4		352			
3 Bed 5 Person Duplex	99.2	2		198.4			
1 Bed 2 Person Apt	49.6	8		396.8			
3 Bed 5 Person Apt	97	3		291			
and 2 lift cores with stairs				217.00			
and 2 stair cores without lifts				318.39			
			28				
Block F	1166			-			
4 Bed 7 Person House	126	3		378 129			
S. 12-E	129	1 2		129 215			
3 Bed 5 Person House	152	1		152			
5 Bed 9 Person House	192	- 1	7	102			
TOTAL UNITS		86	86	9355.66			
THE PARTY							

				22221 sqm	
				22221 sgm	
		86	86	9355.66	7.0 Schedule of Accommodation
4	152	1	7	152	
	107.5	2		215	
	129	- j=		129	
	126	3		378	
-			28		
+				318.39	
	97	3		291	
	49.6	8		396,8	
	99.2	2		198.4	
1	88	-4		352	
1	88	3		264	
	105.2	8		860.2	
				-	
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n				416.48	
re)				100	
+	40.9	- 4		406	
	65.1 46.9	2		130.2 187.6	
1	63	4		252	
	104.5	4		418	
	130.3	2		260.6	

#### Note

The opinions expressed in this study have been based on information available to the author at the time of preparation of the study. Some of this information was received from the Client. The Topographical Survey provided has not been checked for accuracy, no consultations have been held with the local authority planning or engineering departments, no advice has been received from a planning consultant and the author does not purport to have any expertise with regard to civil and structural, mechanical and electrical engineering. The study is preliminary in nature and subject to more detailed analysis and consultation with stakeholders should the project progress.

#### **Quality Assessment**

This feasibility study was reviewed and approved by:

Authors Signature

Soife Mc Gee.

05.03.2019



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