DESIGN STATEMENT COOLCARRON • FERMOY • CORK

Geraldine Coughlan Architects Ltd., Ard na Greine, Enniskeane, Co. Cork +353 23 8822688 info@gca.ie www.gca.ie

GERALDINE COUGHLAN
ARCHITECTS

INTRODUCTION

This design statement supports the planning application for a residential development on land at Coolcarron, Fermoy, Co.Cork. The subject site is located south of Fermoy town. The scheme has evolved from being zoned specifically for medium density residential development and being located within the development boundary of Fermoy town environs as defined in the 2017 Fermoy Municipal District Local Area Plan. The zoning FY-R-08 is “Medium A density residential development. The scheme shall provide development of active open space to include playing pitches. A link to pedestrian walks through O-05 shall also be provided.” A medium density scheme has been developed with a potential link to pedestrian walks through 0-05 provided for. The site is adjacent to St. Colman’s Sports Campus, which provides an extensive range of facilities, including five full size pitches, all-weather floodlit tennis courts and a sports hall.

The proposed development consists of 336 dwellings comprised of 1 and 2 bedroom duplexes and simplexes, 2 and 3 bedroom terraced houses, 3 and 4 bedroom semi-detached houses and 3, 4 and 5 bedroom detached houses. The development with also include a creche along with associated play area and car parking, communal bin storage for each duplex and simplex building, car parking, bicycle parking, landscaping works with public lighting, play areas and all associated site works.

This Development takes guidance from the following Documentation:

- Cork County Development Plan 2014
- Urban Design Manual A Best Practice Guide
- Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities
- Best practice guidelines Quality Housing for Sustainable Communities (2007)
- Sustainable Residential Development in Urban Areas Guidelines for Planning Authorities (2009)
- Design Manual for Urban Roads and Streets or ‘DMURS’ (2013)
- Urban Development and Building Heights Guidelines for Planning Authorities (2018)
- Childcare Facilities – Guidelines for Planning Authorities (2001)
- Smarter Travel - A New Transport Policy for Ireland (2009-2020)
- National Planning Framework – Project Ireland 2040
- Regional and Spatial Economic Strategy - The National Planning Framework (‘the NPF’)

CONTENTS

12 URBAN DESIGN CRITERIA

NEIGHBOURHOOD

SITE

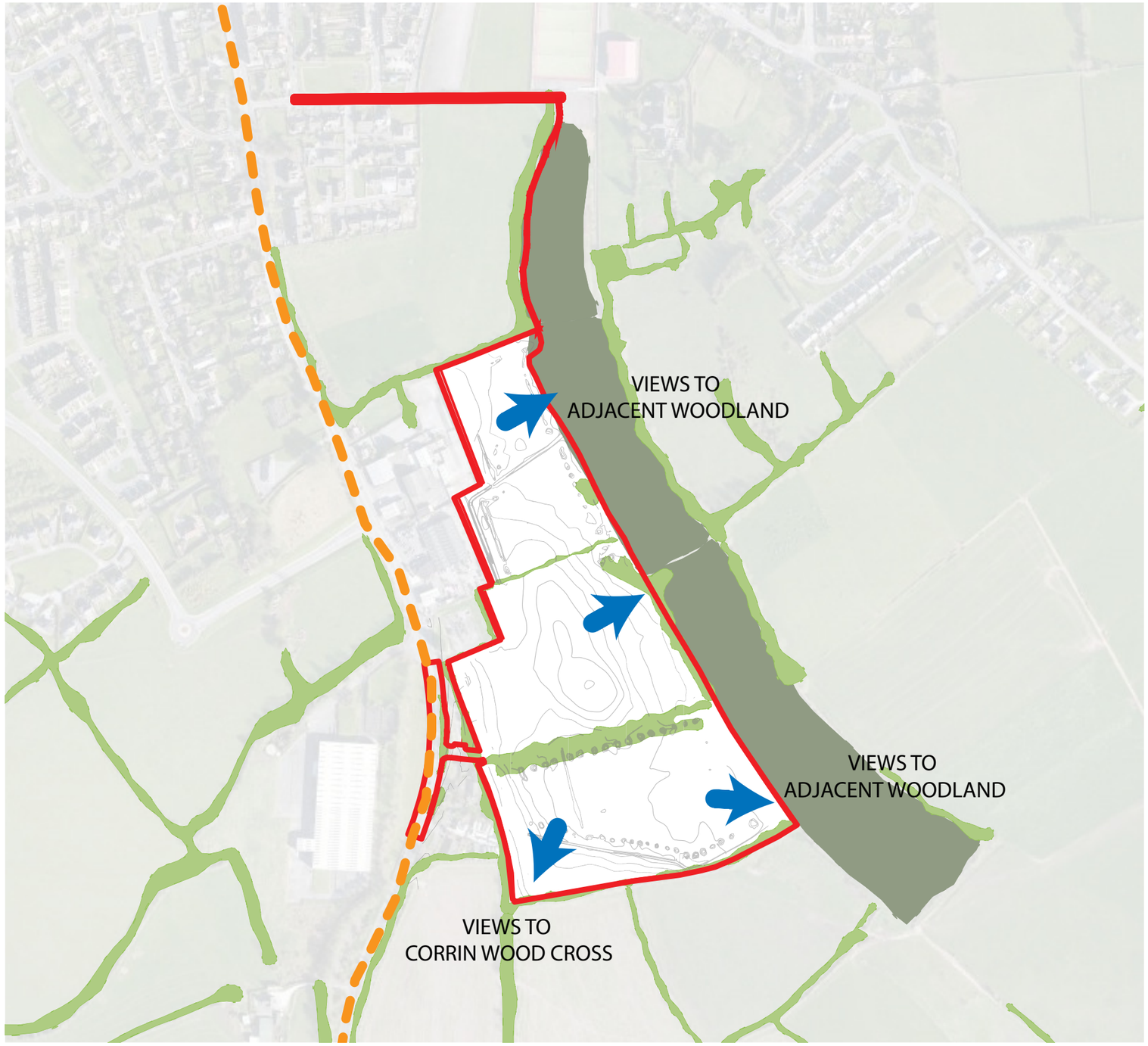
HOME

01 CONTEXT

The site is located south of Fermoy town, within 1km of the town centre, which provides local services such as shops, primary and secondary schools, a pre-school, creche, pharmacies, GPs and a post office. It is bounded on the west by the main road to Fermoy town (R639) as well as private dwellings, commercial properties and an ESB facility. There is also an existing lay-by and weigh station on the western boundary, adjacent to the proposed entrance. There is a planted woodland and stream to the east of the site. The south of the site is bounded by agricultural land. St. Colman's College Sports Campus is to the north. An existing field boundary of mature alder trees is located towards the south of the site running from east to west, and a large field drain runs alongside the tree line.

The site analysis has informed a discernible, site specific design response. The existing natural features on site can be enhanced to positively contribute to the identity and character of the development. The eastern boundary will be developed as an ecological corridor. The neighbouring green space has been extended inside the site boundary, incorporating a pathway that runs the length of the site. The east west vista of Alder trees and the water drain are retained and incorporated into a landscaped pedestrian desire line. Pedestrian permeability and connections are prioritised.

The design approach is to provide a variety of housing types, forming neighbourhood clusters, while taller duplex buildings are located adjoining green areas or close to the urban area of Fermoy Town. Public open space is dispersed throughout the scheme, influenced by the existing site features. A buffer of trees has been created between the existing ESB substation and the dwellings immediately to the south, as well as to the east of the substation.



The visual impact of the development in low, as it sits well in the surrounding context. The maximum building height is 3 storeys with the majority of the development being 2 storeys in height. The topography of the site is such that it falls away from the road, meaning the development is well concealed within the landscape. Innovision's photomontages show the development as seen from surrounding viewpoints.

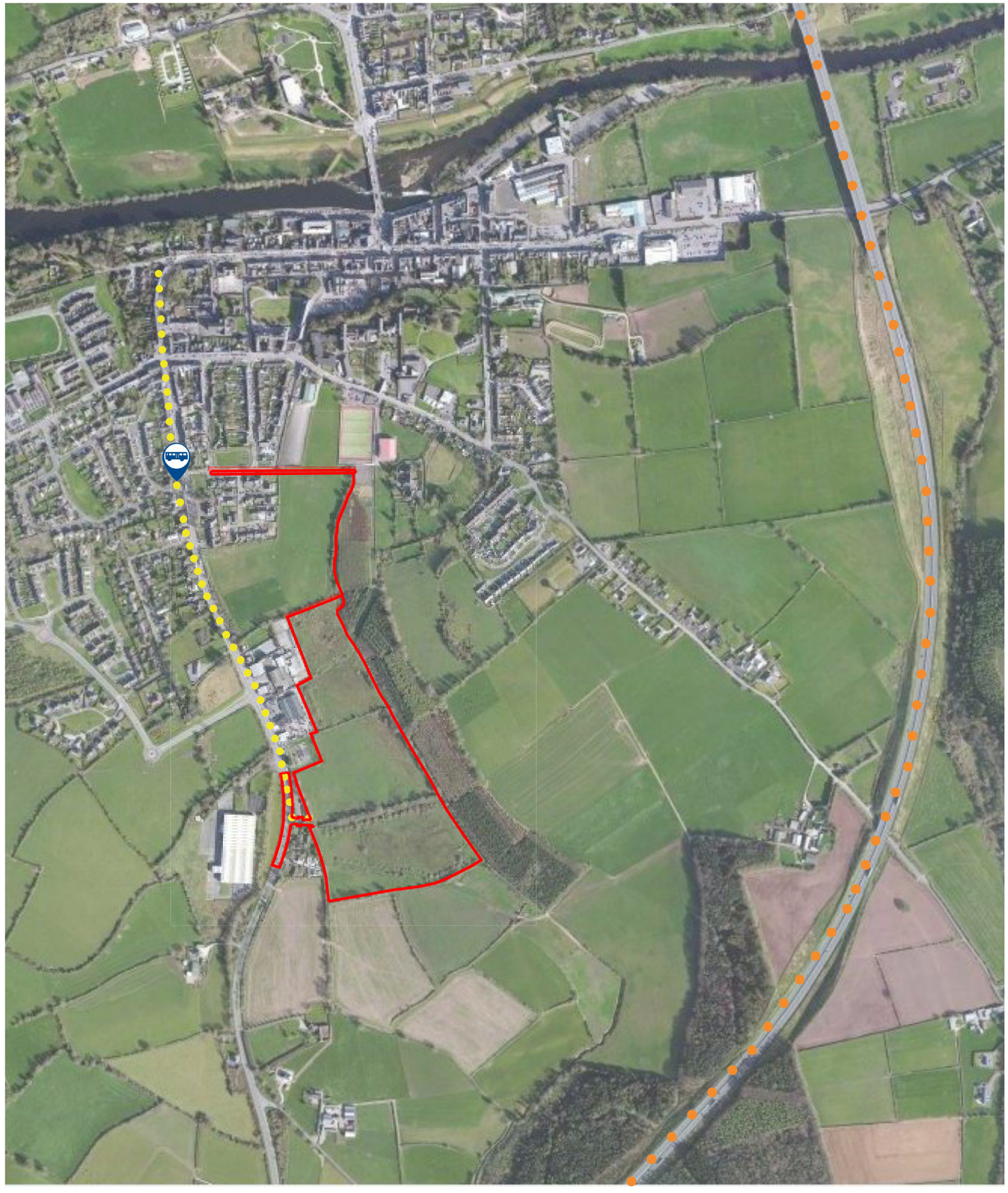
The development has been designed with reference to the Urban Design Manual, following the 12 criteria of context, connections, inclusively, variety, efficiency, distinctiveness, layout, public realm, adaptability, privacy and amenity, parking, and detailed design.

02 CONNECTIONS

The development is within 1km of Fermoy Town Centre and within 700m of a bus stop where the 245 bus provides an hourly service between Cork City and Clonmel. Approximately 1.4km from the site the 768 Busaras route provides a 4 times daily service to Dublin. There is also easy vehicular access to the national road network, being within 1km of the Cork to Dublin Road (M8). A single entrance is proposed along the main route to Fermoy town (R639) to the west of the site.

Future connections have been allowed for, with potential pedestrian links to the Sports campus to the north, as well as to the proposed development to the north-west. A pedestrian and cycle route runs from the main entrance on the west to the ecological corridor on the east, and then north through the ecological corridor before turning west again to allow for potential connection to the future development to the north-west.

Ease of access for pedestrians to play areas and public open space has been prioritised throughout the scheme. The pedestrian desire lines throughout the scheme minimise the travel time through the development.



03 INCLUSIVITY

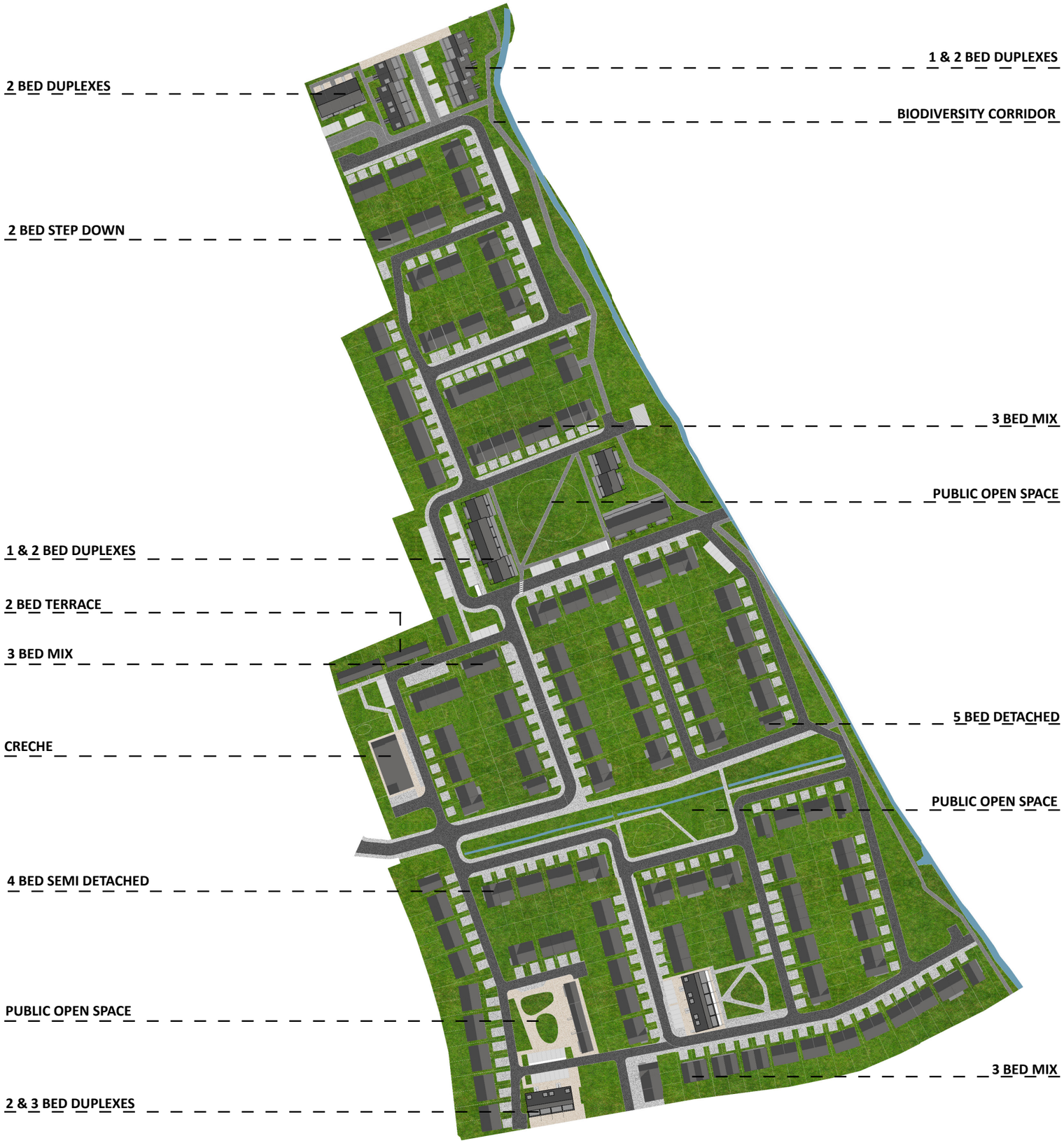
The development has been designed to provide universal access. Houses, Simplexes and Duplexes are arranged to provide access and use for all regardless of age, size or ability.

The provision of housing is wide ranging with different types, sizes and tenures. The choice of housing will lead to a more balanced and sustainable community. The overall mix of units (types and sizes) will create a mixed neighbourhood that can support a variety of people through different stages of their lives.

All houses are provided with level access thresholds in accordance with TGD M. Level access is provided to the ground floor of duplex and simplex buildings, with upper floor served by accessible stairs. Each dwelling is designed to be adaptable internally to facilitate life changes, such as disability or the needs of older people.

Car parking is arranged for ease of use and accessibility with most parking provided within the curtilage of the dwelling unit. Level footpaths are provided wherever possible, with footpaths being gently sloped where necessary.

The Public Spaces, streets and green areas are designed for access, movement and manoeuvrability, with areas of hard landscaping running through green areas.



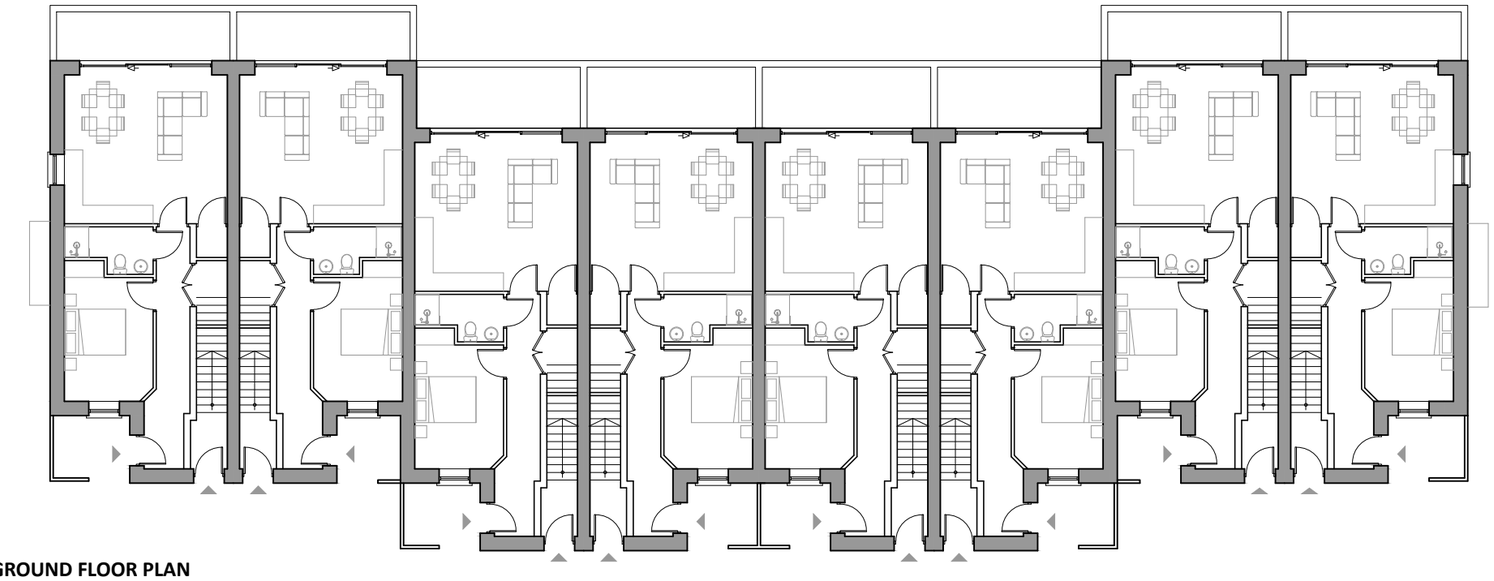
04 VARIETY

The scheme contributes to the quality of life in the locality, providing local residents with scenic walking and cycle routes as well as a new creche and after school facility. The scheme provides new neighbourhoods with a mix of residential typologies. A large mix of housing types and sizes provide for a diverse range of occupants, and add to the choice available close to Fermoy Town. House sizes range from 1 bed to 5 bed, with dwelling types including terraced, semi-detached, detached and corner houses.

The scheme also provides Simplex and Duplex types, both 1 bed and 2 bed units, and all units are dual aspect. Simplexes and Duplexes are designed to comply fully with Sustainable Urban Housing: Design Standards for New Apartments. Guidelines for Planning Authorities, Dept of Housing, Planning and Local Government March 2018. The houses are designed to meet best practice guidance provided by Quality Housing for Sustainable Communities.

Variety in the elevation treatment of different house and duplex/ simplex types provides visual interest and adds to the sense of character in different areas of the scheme, while consistency in overall materials, detailing and proportion maintains a sense of cohesion.

FRONT ELEVATION



GROUND FLOOR PLAN

REAR ELEVATION

DUPLEX EXAMPLE

Context

Connections

Inclusively

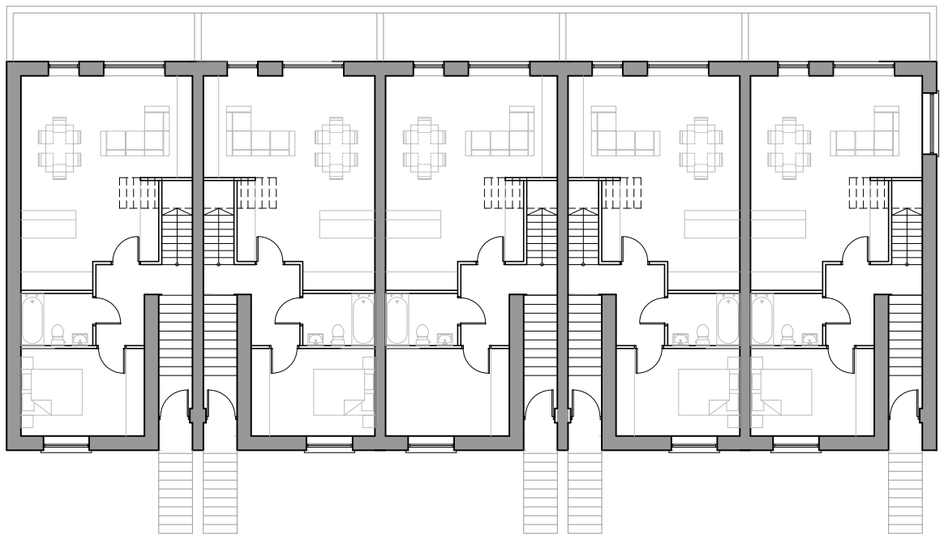
Variety

Unit Type	Form	No. of Beds	Size (sqm)	Total No. of Units Proposed
A1, A1.1 & A2	Detached	5	188.7	**4**
B1, B1.1, B10, B10.1	Semi-Detached	4	152.8	**31**
B2, B2.1, B9. B9.1	Semi-Detached	4	152.8	**11**
B3 & B3.1	Detached	4	152.9	**2**
B8	Semi-Detached	4	121	**2**
C1, C1.1, C15, C15.1	Semi-Detached	3	117.4	**78**
C2, C2.1	Semi-Detached	3	117.6	**2**
C3, C18	Mid Terrace	3	116.7	**8**
C2.2, C2.3	Terraced	3	117.6	**2**
C3.1, C3.2	Terraced	3	117.4	**6**
C5 & C5.1	End of Terrace	3	117.7	**2**
C6	Terraced	3	92.3	**11**
C7, C16, C21	Semi-Detached	3	92.3	**6**
C8	Semi-Detached	3	118.6	**6**
C9	Semi-Detached	3	119.3	**18**
C10	Terraced	3	119.3	**6**
C11	Terraced	3	92.3	**12**
C12 & C12.1	Semi-Detached	3	120.4	**4**
C13 & C13.1	Detached	3	117.5	**2**
C17	End of Terrace	3	117.5	**1**
C19 & C19.2, C15.2	End of Terrace	3	117.6	**5**
C19.1,C19.3	Mid-Terrace	3	117.6	**6**
C20 & C20.1	End of terrace	3	117.6	**4**
C22 & C22.1	End of terrace	3	102.2	**2**
C23	Terraced	3	99.2	**1**
D1	Mid-Terrace	2	81.8	**2**
D2	Semi-detached	2	81.8	**2**
D3	terraced	2	81.5	**6**
Total				**242**

Unit Type (Block Name)	Form	Apartment No.	No. of Beds	Sizes Per Unit (m^2)	Total No. of Units	Sub Total Unit Areas (m^2)
D4	simplex	286-293	2	76.4	8	611.2
E1	duplex	18,20,22,24	1	58.5	4	234
		19,21,23,25	2	86.7	4	346.8
E1.1	duplex	67,69,71,73,75	1	58.5	5	292.5
		66,68,70,72,74	2	86.7	5	433.5
E2	duplex	203,205,207,209,211, 213,215,217	1	56.3	8	450.4
		204,206,208,210,212, 214,216,218	2	90.8	8	726.4
E2.1	Duplex	231,233,235,237	1	56.3	4	225.2
		232,234,236,238	2	90.8	4	363.2
E2.2	duplex	219,221,223,225,227, 229	1	56.3	6	337.8
		220,222,224,226,228, 230	2	90.8	6	544.8
E4	Duplex	305,306,307,308	2	86	4	344
		309,310,311,312	2	84	4	336
E3.1	Duplex	313,315,317,319,321, 323	1	58.3	6	249.8
		314,316,318,320,322, 324	2	92.4	6	554.4
E3.2	Duplex	325,327,329,331,333, 335	1	58.3	6	249.8
		326,328,330,332,334, 336	2	92.4	6	554.4
Total					**94**	**6854.2m2**

FRONT ELEVATION

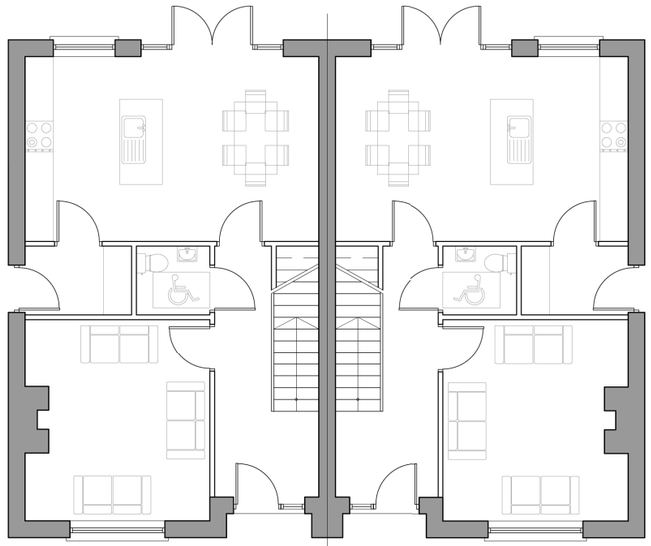
REAR ELEVATION



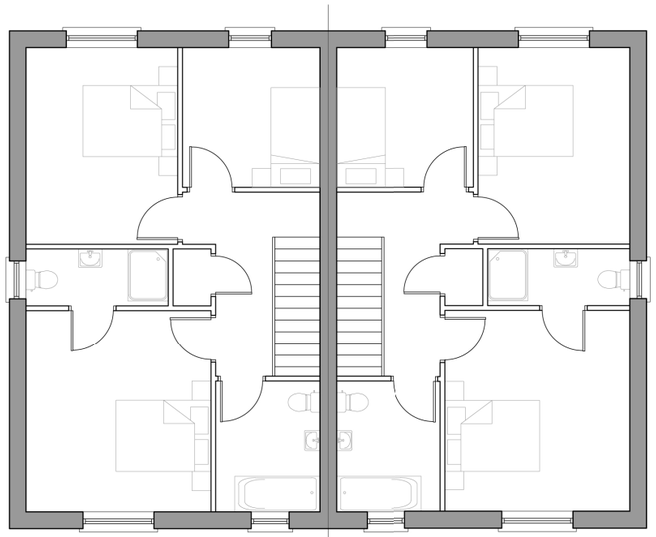
FIRST FLOOR PLAN

DUPLEX EXAMPLES

FRONT ELEVATION C15

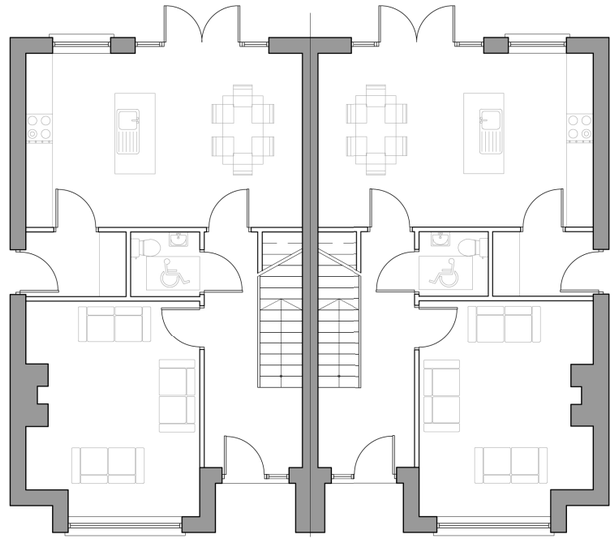


GROUND FLOOR PLAN C15

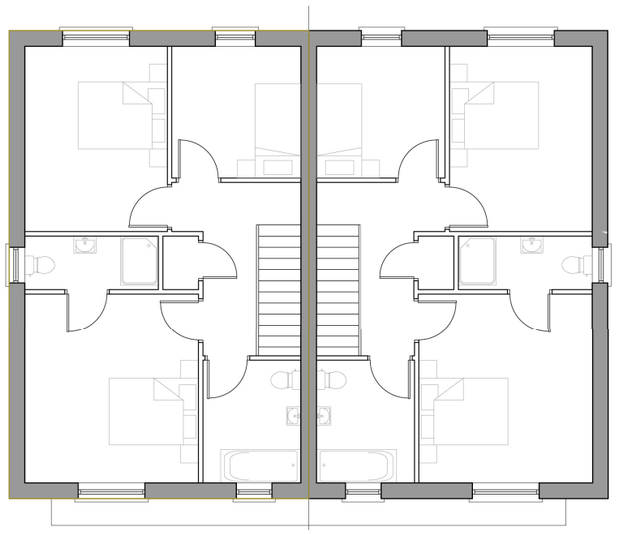


FIRST FLOOR PLAN C15

FRONT ELEVATION C8

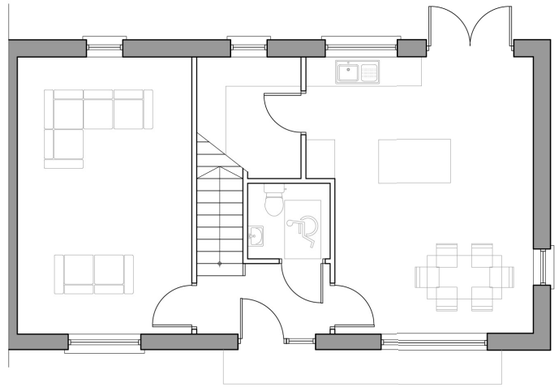


GROUND FLOOR PLAN C8

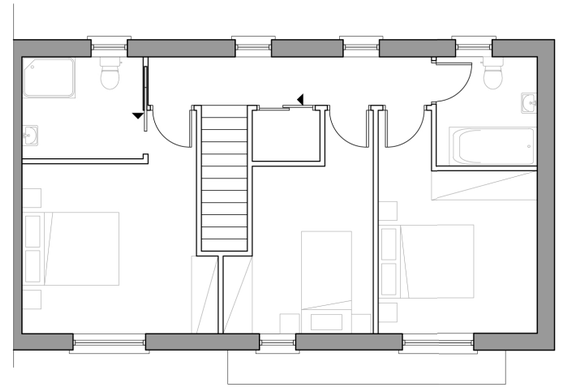


FIRST FLOOR PLAN C8

FRONT ELEVATION C5.1



GROUND FLOOR PLAN C5.1



FIRST FLOOR PLAN C5.1

05 EFFICIENCY

There are 336 units proposed, split between houses and own door simplex and duplex dwellings. The developable site area is 11.22 hectares, giving a proposed residential density of 30 residential units to the hectare. The efficiency in land use has been carefully considered. The density of housing is in line with National Policy and considered appropriate for its location.

Higher density residential buildings are included, located in a cluster around the central core, creating an urban heart to the scheme, as well as to the northern end of the site, appropriately closer to Fermoy town.

The public areas exploit the best solar orientation and provide pedestrian connections, seating, and play areas. The biodiversity of existing features of woodland, stream and alder tree ditch are preserved and SUDS are incorporated into the green area running east to west below the main entrance.

The dwelling designs are laid out in so far as possible to optimise solar orientation and to ensure dwellings have excellent daylighting. A comprehensive Daylight, Sunlight and Overshadowing Assessment was undertaken for the proposed design. The dwellings were designed to comply with both BS 8206-2:2008: Lighting for Buildings - Part 2: Code of practice for daylighting and the newer standard: EN 17037:2018 Daylight in Buildings. (More detail is provided in Passive Dynamics' Sustainability Consultants Report)

AERIAL VIEW OF SITE LAYOUT

06 DISTINCTIVENESS

Existing features of woodland and stream that run north-south on the eastern boundary of the site and the alder tree ditch line that runs east-west across the site create natural focal points for the development.

The biodiversity of these areas is preserved and enhanced within the design of the overall development. These features lend themselves to promoting site permeability and connectivity. The creation of a ecological corridor running alongside the woodland and stream allows the layout to exploit the views.

The site naturally splits into 3 areas. The Alder Tree area, the Central Core and the Urban Edge. The southern area lends itself to a lesser density as it is closest to the rural edge and hinterland. The Urban Edge is closest to Fermoy Town and the Central Core provides a heart to the scheme.

Within each of these areas are home zones that allow a domestic scaled sense of place. The use of smaller street widths with shared surfaces that serve a low number of houses (typically in cul-de-sacs) create Home Zone areas. The transition in road sizes from wider more public streets to shared surfaces creates a sense of place and hierarchy from public to private. The soft and hard landscaping is intregal to the home zone areas.

The design creates a strong sense of place, this has been achieved using the following principles:

- Connectivity – pedestrian permeability
- Enclosure – facing buildings towards the street where appropriate, providing a sense of enclosure, along with locating entrances on the street allowing for more passive supervision
- Activity – Strong landscaping, soft and hard, allows for active and lively usage.

CLUSTERS OF HOUSING NATURALLY FORMED AROUND EXISTING FEATURES

07 LAYOUT

The concept for the scheme is based on delivering a high-quality residential development that responds to the existing context. The location of the site between a rural and urban area informed the decision to locate predominantly semi-detached and detached houses to the south of the site. To provide appropriate density and housing mix there are some duplexes located in this area, but they have been kept to 2.5 storeys in height. Taller 3 storey duplex buildings are located at the urban edge, close to Fermoy Town.

The approach road into the site provides a vista of the mature Alder tree line that exists on site. The current drainage that runs alongside this treeline will be opened up to provide a water feature within the landscape. This terminates at the eastern boundary where a North-South Ecological corridor is proposed. This provides a very strong north-south pedestrian and cycle link though the site and encompasses the wetlands area and biodiversity corridor.

Pedestrian permeability is prioritised in the layout, with pedestrian routes following desire lines through interlinked public open spaces. Potential future access points are provided for wherever possible to facilitate interconnectivity between this scheme and adjoining sites.

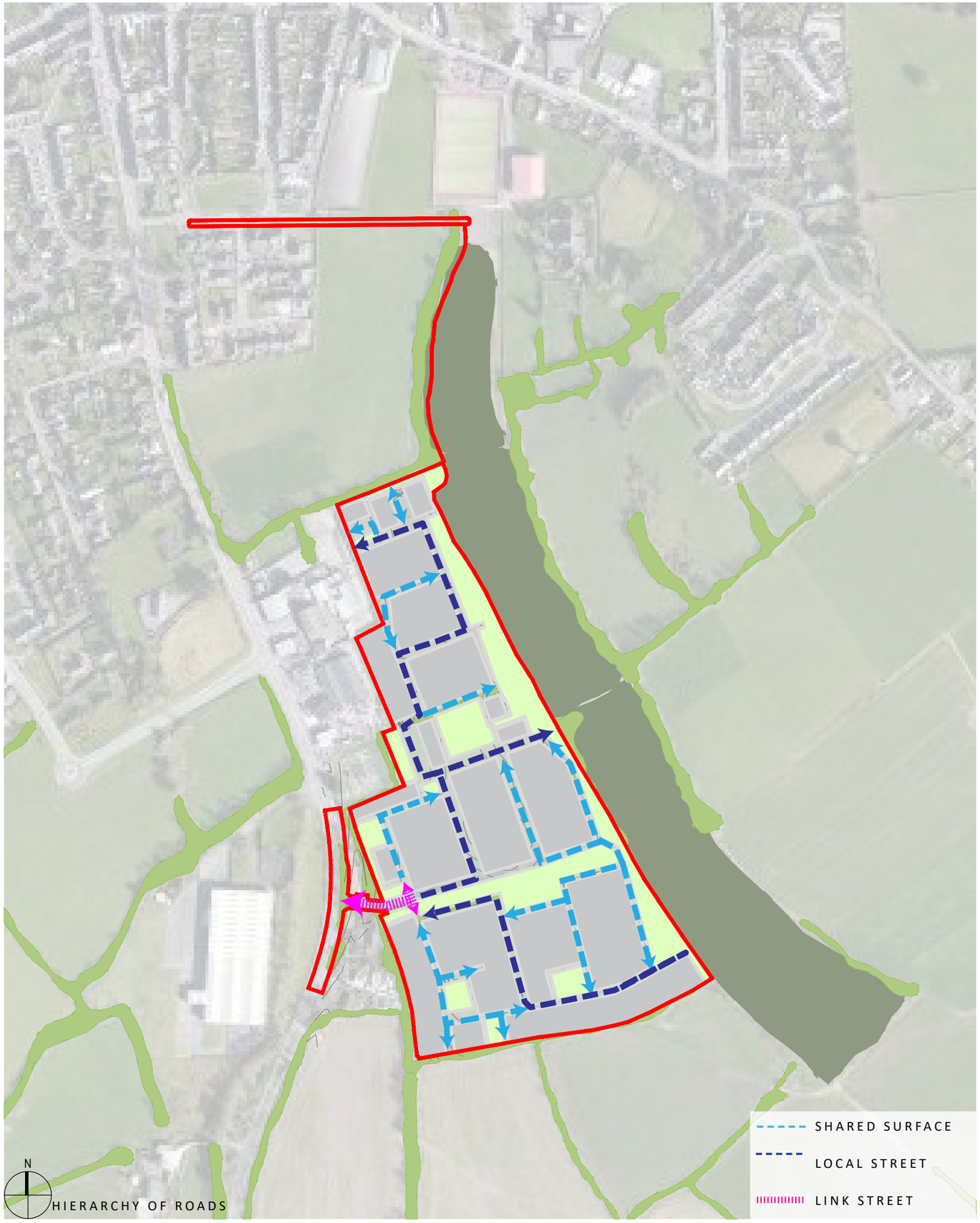
A variety of public spaces have been provided, with play areas, pedestrian walkways and seating. The central core features a large open square, overlooked by the surrounding occupants.

PEDESTRIAN LINKS & CHARACTER AREAS

The internal road network has been designed to comply with Design Manual for Urban Roads and Streets 2013 (DMURS). The design of the street networks allows for a more legible layout, with high levels of connectivity allowing for more permeable travel. The high quality street environments attract pedestrians and cyclists promoting more sustainable forms of transport.

Link streets at the main entrance are reduced to narrower local streets on the main routes, with a width of 5.3m, and 2m wide paths. Shared surfaces of 4.8m have been used wherever possible to create home zones. The self-regulatory nature of the shared surface streets manage driver behaviours, calm traffic and prioritises the pedestrian experience.

Access is designed to minimise the number of houses located on main routes, instead locating houses on local roads or in home zones. Homes are carefully sited so that overlooking is avoided, while creating active street fronts.

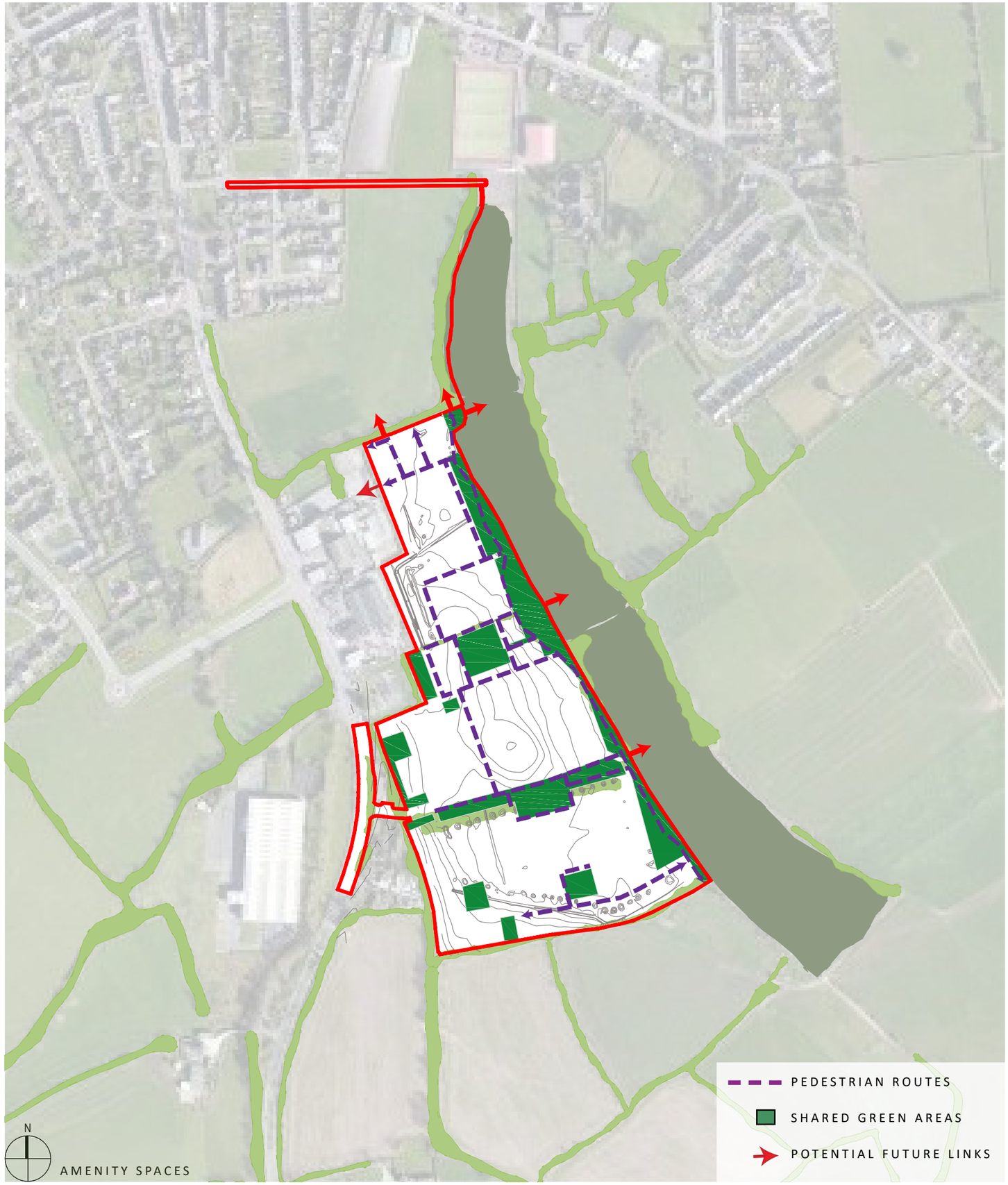


08 PUBLIC REALM

Landscaping is a strong feature of the scheme, and the use of both hard and soft landscaping allows for active and lively usage. Just over 15% of the site is allocated as public open space, which is dispersed throughout the scheme. The distinctive existing landscape features on the site, specifically the existing Alder tree line that runs east west and the existing stream and wetlands area that runs North South, are retained and incorporated into the public open space.

These open spaces provide views for surrounding dwellings which in turn provide passive surveillance for the open space. Corner units are treated as a special condition, where they have both a front onto the street like their neighbours and side views onto surrounding green areas. There is a clear distinction between the private areas of individual gardens and the public green areas.

Pedestrian routes run through green areas, creating active, vibrant spaces. Several play areas are dispersed throughout the scheme, adding to the sense of smaller communities within the development.



GREEN AREAS ON SITE DEVELOPED AROUND EXISTING AREAS OF TREES

PLAY AREAS DISPERSED THROUGHOUT THE SITE ENHANCE PUBLIC OPEN SPACE

GREEN AREAS

PLAY AREAS

Efficiency

Distinctiveness

Layout

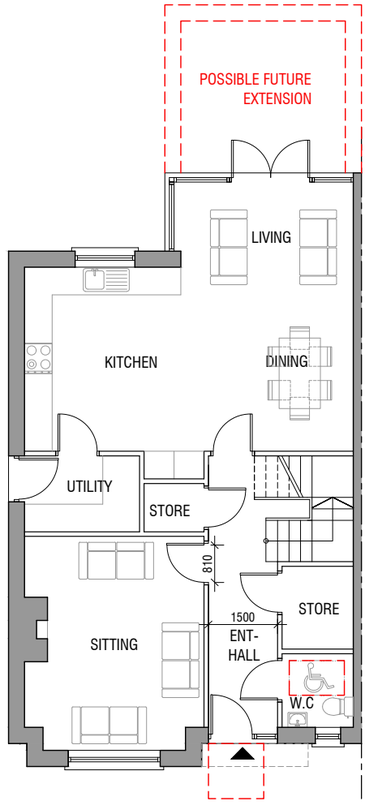
Public Realm

PUBLIC OPEN SPACE AND PLAY AREA TO SOUTH

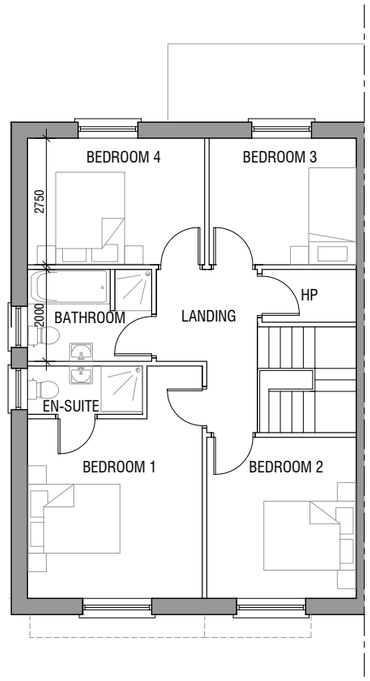
09 ADAPTABILITY & ACCESSIBILITY

The house types have been carefully designed to be adaptable and future proofed to be modified in the future. Some of the houses are designed to accommodate future extensions with minimum impact on adjacent dwellings while individual houses have the potential to convert the attic space.

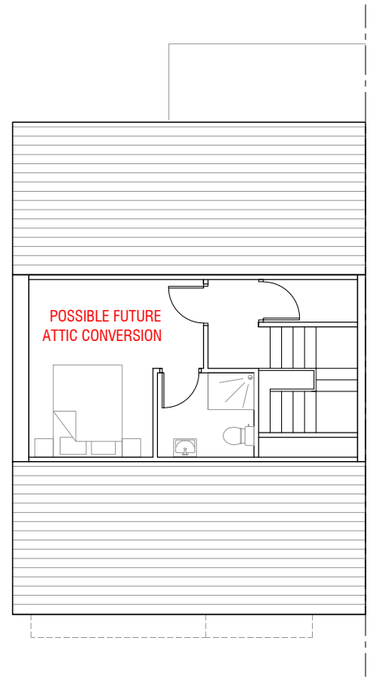
All houses, duplexes and simplexes are designed to be energy efficient with a high thermal performance and will meet all Building Regulations Standards. The development will be NZEB compliant, with all dwellings having an A2 BER rating. All dwellings meet and most exceed the design guidance with regard to minimum room sizes, dimensions and overall floor areas.



Ground Floor Plan of typical 4 bedroom ouse
Universal Design and adaptability indicated
Red



First Floor Plan of typical 4 bedroom house



Possible Second Floor Plan of typical 4 bedroom house

10 PRIVACY & AMENITY

Each unit has its own area of private outdoor space, whether in the form of a balcony, terrace or garden. All houses are dual aspect, with some having views on three or all sides. Homes are carefully sited so that views directly into facing houses are avoided. All simplex and duplex buildings are dual aspect. All units have been designed with adequate storage.

A distance of at least 2.6m is provided between opposing gables of dwellings. Party walls are designed to prevent sound transmission between adjoining dwellings. A buffer zone is provided between ground floor units and public areas, creating a transition zone between public and private space. Privacy planting has been used to ensure the privacy of ground floor duplex and simplex buildings.

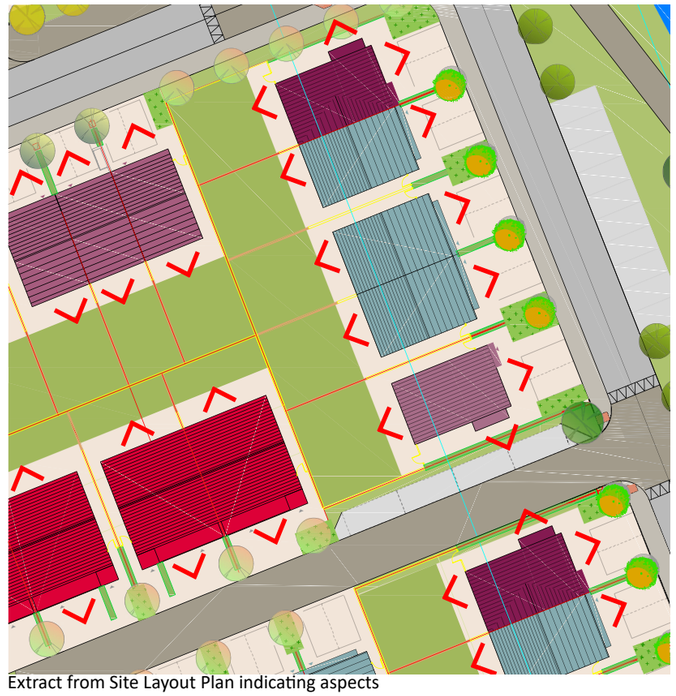
Generally, a traditional back-to-back distance of 22m has been maintained between opposing first floor rear windows. Having regard to the Department of Housing, Local Government and Heritage Document, Sustainable Residential developments in Urban Areas, we established that in the case of Simplex Units (Type D4), a shorter back-to-back distance of approximately 17m was appropriate, given that the only first floor window is to the kitchen area, where opaque glass has been used to avoid overlooking.

To the north of the site Duplex Type E3.1 and E3.2 face east west, with a separation distance of 23m between blocks. The entrances to Duplex Type E3.2 are from the pedestrian path to the east, creating a lively pedestrian route with passive surveillance. Duplex Type E4 has been oriented so that private open space faces south, and access is from the north, creating an active and overlooked area at the edge of the site.

Duplex types E2, E2.1 and E2.2 create a strong central core around a large green square. The separation distance between blocks to the east and west is over 50m. Duplex type E2 and E2.1 have their private open space overlooking the green square. Duplex Type E2 addresses the street to the west and public open space beyond, while Duplex Type D2.1 overlooks the ecological corridor to the east. Duplex type E2.2 has a north south orientation, addressing the street edge and the semi-detached houses opposite. There is approximately 10m between this block and Duplex Type E2.1. A strong tree line has been introduced here, and the upper side elevation of Duplex Type E2.1 has been left blank to ensure privacy for these units.

To the south of the site Duplex type E1 faces the public open space to the north, and units have their private open space oriented south. Side elevations address the street to the west and green area to the east. Duplex type E1.1 overlooks the street, both to the west and south, and is set back slightly from the neighbouring dwellings. Private open space overlooks the green area to the east, allowing over 50m between this bock and the dwellings to the east.


Example of typical front private amenity space


Extract from Site Layout Plan indicating aspects

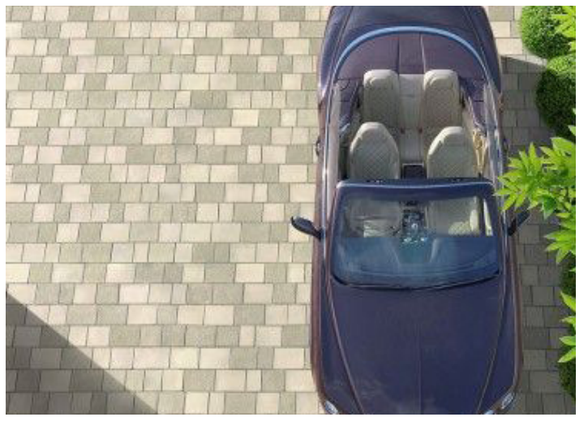
11 PARKING

The majority of car parking is provided within the curtilage of each individual house. Where this isn't possible parking has been provided within areas of public open space. Simplex and Duplex parking is located communally, close to the residential buildings. Two spaces are provided for each house, while simplex and duplex units have one space per unit, with 1 additional visitor space provided for each 4 units. Parking is located so that cars are overlooked by surrounding houses and passing motorists or pedestrians. 15 spaces have been provided for the Creche, based on allocating 1 space per 3 staff members and 1 space per 10 children.

Covered bicycle parking has been provided throughout the scheme. 1 gated bike space is provided per Simplex/Duplex bedroom with visitor bicycle parking provided at a rate of 1 per 2 simplex/duplex.

Typical parking arrangement

Sample of paving sets outlined for front garden parking spaces



Extracts from Site Layout Plan indicating communal parking arrangement for houses

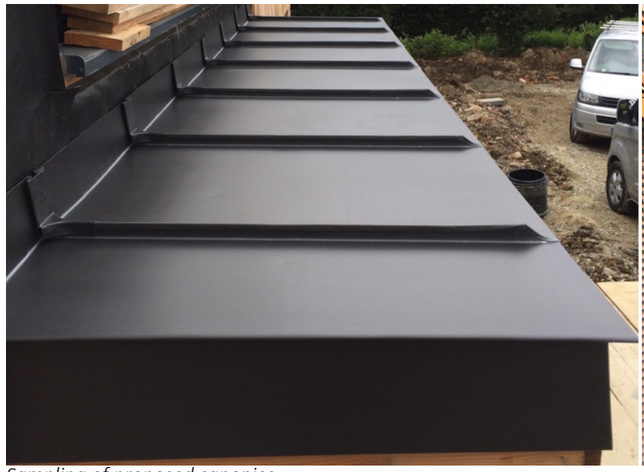
12 DETAILED DESIGN

A variety of materials are proposed to include a mix of brick, zinc and render, depending on the specific character area. Windows will be high performance uPVC or Aluminium. There will be a consistent palette of materials throughout the scheme, with an emphasis on the use of brick on the duplex buildings, while house designs are mixed between render finish and brick fronted houses. Zinc will be used selectively to emphasise entrances.

The chosen materials will be robust and good detailing shall ensure longevity and durability. The life cycle qualities of the external finishes have been carefully considered.

The use of materials contributes to the distinction between character areas. To the south there is a strong brick elevational treatment. Below the alder trees a buff brick is used, while above the alder trees a red brick is used. The duplex buildings around the central core use a mix of grey and buff brick to create a distinction between units. To the north of the site a painted render finish is used on the houses, while the use of grey and buff brick to the duplex buildings at the urban edge create a more urban feel.

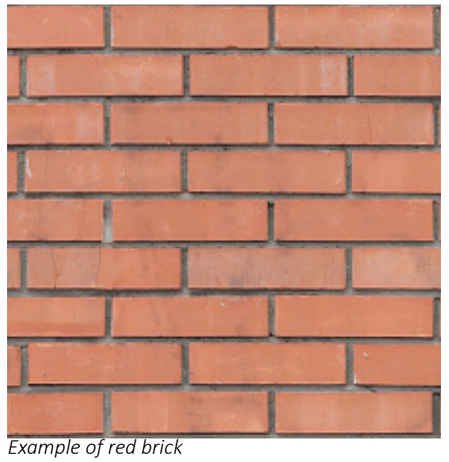
Bin storage is integrated into the boundary treatment of each terraced dwelling, and located communally for multi-unit buildings. The landscape design has been carefully considered and public open space was developed in conjunction with dwelling design.

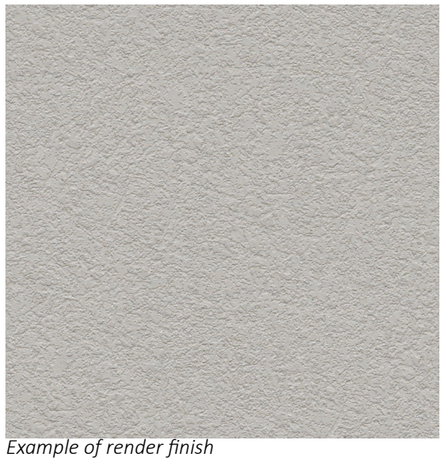


Sampling of proposed canopies


Example of buff brick


Example of grey brick


Example of red brick


Example of render finish

Character Areas

The site is made up of three different character areas, formed by both existing and new features, and defined by materials, dwelling typologies and the relationship between neighbouring dwellings and their context.

Northern Dense Character Area

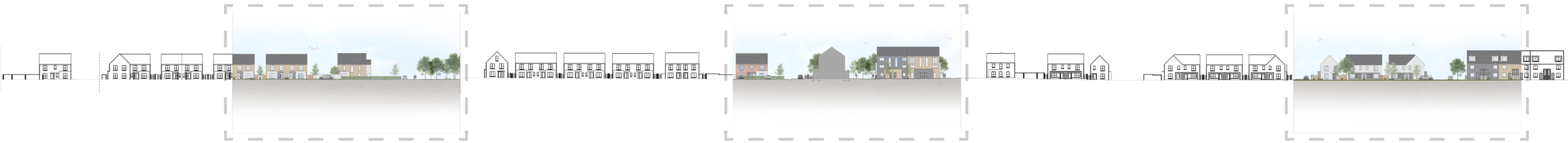
The design becomes more dense and developed as it moves further north, amalgamating with the busy town. 3 storey duplex buildings screen the northern edge, with predominantly shared surfaces, to create a slower pace and give pedestrians priority. While the houses in this area are finished with a painted render finish to distinguish the character area, the duplex buildings have a mix of grey and buff brick to create an urban feel.

Central Core Character Area

The central core has a strong urban feel, with 3 storey duplex buildings surrounding a large green square. A mix of grey and buff brick is used, creating a contemporary design. Parking is kept to the edge of this area, with priority given to pedestrians, creating an attractive route for all residents through the centre of the scheme. Duplex E2 and E2.1 to the east and west have their private open space overlooking the green square, while the front of these units also have views to green areas. Duplex E2.2 has a north south orientation, addressing the street edge and the semi-detached houses opposite.

South Alder Trees Character Area

Semi-detached and detached houses are located along the biodiversity corridor to the south, with houses facing the biodiversity corridor to the east, while having their back gardens to the west. These units are accessed via a shared surface, giving pedestrian priority. Houses facing north have views toward the alder trees, while having their back gardens to the south. Where duplex buildings are located in this area they are similar in scale to the surrounding houses, and overlook areas of public open space.

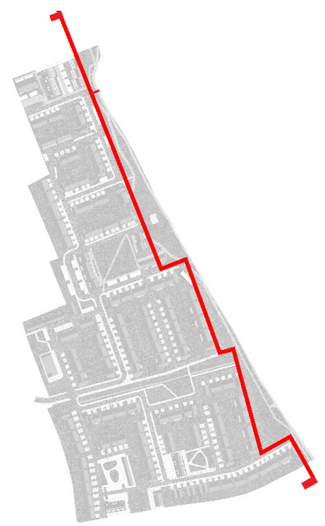


1.

2.

3.

CONTIGUOUS SECTION F-F



1 .

2 .

3 .

PEDESTRIAN DESIRE LINES RUN THROUGH PUBLIC OPEN SPACE

PEDESTRIAN ROUTES ALONG BIODIVERSITY CORRIDOR

VIEW OF 3 BED TERRACED AND SEMI-DETACHED HOUSES

PUBLIC OPEN SPACE AND PLAY AREA TO SOUTH