



RESIDENTIAL DEVELOPMENT AT COOLAGAD, Greystones, Co. Wicklow
ARCHITECTURAL & URBAN DESIGN STATEMENT
An Bord Pleanála | STAGE 3 SUBMISSION
MARCH 2022

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COOLAGAD, GREYSTONES, CO. Wicklow - March, 2022

Strategic Housing Development - Stage 3 submission

DEVELOPER



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EXECUTIVE SUMMARY

This **Architectural and Urban Design Statement** has been prepared in support of a full planning application by **CAIRN Homes Properties Ltd** (the applicant) submitted to An Board Pleanála (ABP) for a **residential development at Coolagad, Greystones, Co. Wicklow**.

The adjoining site context has been carefully considered in the design of this residential development. We have also reviewed the standards set out in the relevant statutory documents. The proposed scheme has been developed in a manner which employs best practice in terms of urban design and place making.

This residential development will bring the following housing allocation and infrastructure:

- **586 residential units** (351no. houses, 203no. apartments, and 32no. duplexes) ranging from 2 to 4 storeys
- A **crèche**, and community facility including provision of open space and active open space and integrated landscaping,
- **Appropriate car parking** throughout the site
- **ESB substations**
- **Site drainage works** and all related site development works above and below ground including a new access onto the regional road R761 and connection to the public sewer on the R761 on a site of 26.03 ha at Coolagad, Greystones, Co. Wicklow.

In conjunction with this Architectural and Urban Design Statement, MacCabe Durney Barnes Planning Consultants have prepared a planning report and detailed response to An Board Pleanála's Opinion.

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1 INTRODUCTION

COOLAGAD RESIDENTIAL DEVELOPMENT Greystones, Co. Wicklow.

The subject site is located at the north-western end of Greystones Town County Wicklow. It is approximately 7km to Bray, another significant town on the border with County Dublin, 35km to Dublin City Centre.

The development will enjoy a sylvan setting landscape and prominent position overlooking Greystones Town. The site also enjoys an expansive sea view to the east and a mountainous backdrop to the west. Existing woodland areas provide shelter on the adjacent hillside. See contextual photograph in Figure 1. below.

The envisioned neighbourhood will also benefit from proximate mountain routes, such as the Keska way to the west, and coastal walking and cycling ways to cliff walks and beach locations.

The existing road network links the site both to Greystones Town Centre, mainly through the R-761, and to neighbouring relevant settlements, including Bray, Dun Laoghaire and Dublin City to the north through the N-11 and M-50 from the no.17 junction. Wicklow Town is located approximately 20 km to the south. In addition, a new road bounding the scheme along its northern edge will deliver a portion of this link to the M-11, as shown in the diagram opposite.

Greystones and the subject site are also served by local DART services to Dublin City Centre.

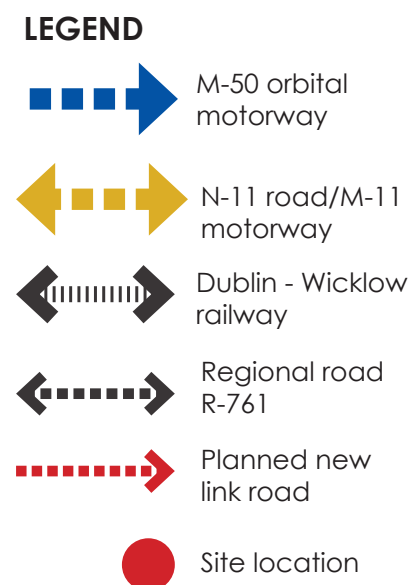


Figure 1. Panoramic view of site context and proposed development outline as viewed from the east



Figure 2. Site location diagram.

2 CONTEXT

The subject site measures c.26 hectares and is located at the north-western edge of Greystones town. It forms part of a new emerging district consisting of new residential, retail and educational development.

The site is located immediately to the west of the new Waverly and Sea Green residential neighbourhoods on sloped lands in Coolagad with Kindlestown Hill and Woods forming the back drop to the west.

The development will tie in with these new neighbourhoods as well as facilitating future connections to the three new schools serving these new communities. These are Greystones Educate Together National School, Gaelscoil na gCloch Liath, and Temple Carrig Secondary School.

Access is to be provided via a new Northern Link Road part of which is included in this application running westwards from a junction at the R761 Rathdown Road opposite Redford Cemetery. A new crèche and community building will be accessed from the new road. It is envisaged in the Greystones - Delgany and Kilcoole Local Area Plan (2013-2019) that this road will ultimately form part of a route westwards that will create a northerly gateway from the N11 to Greystones. Other transport links include the local railway station approx.. 2km from the site as well as local bus links availa-



4. Temple Carrig School Campus



5. Blacklion shopping centre (retail)



1. Harbour Marina



2. Greystones South Beach



Figure 3. Site Location and local features map.



3. Railway Station (DART services)

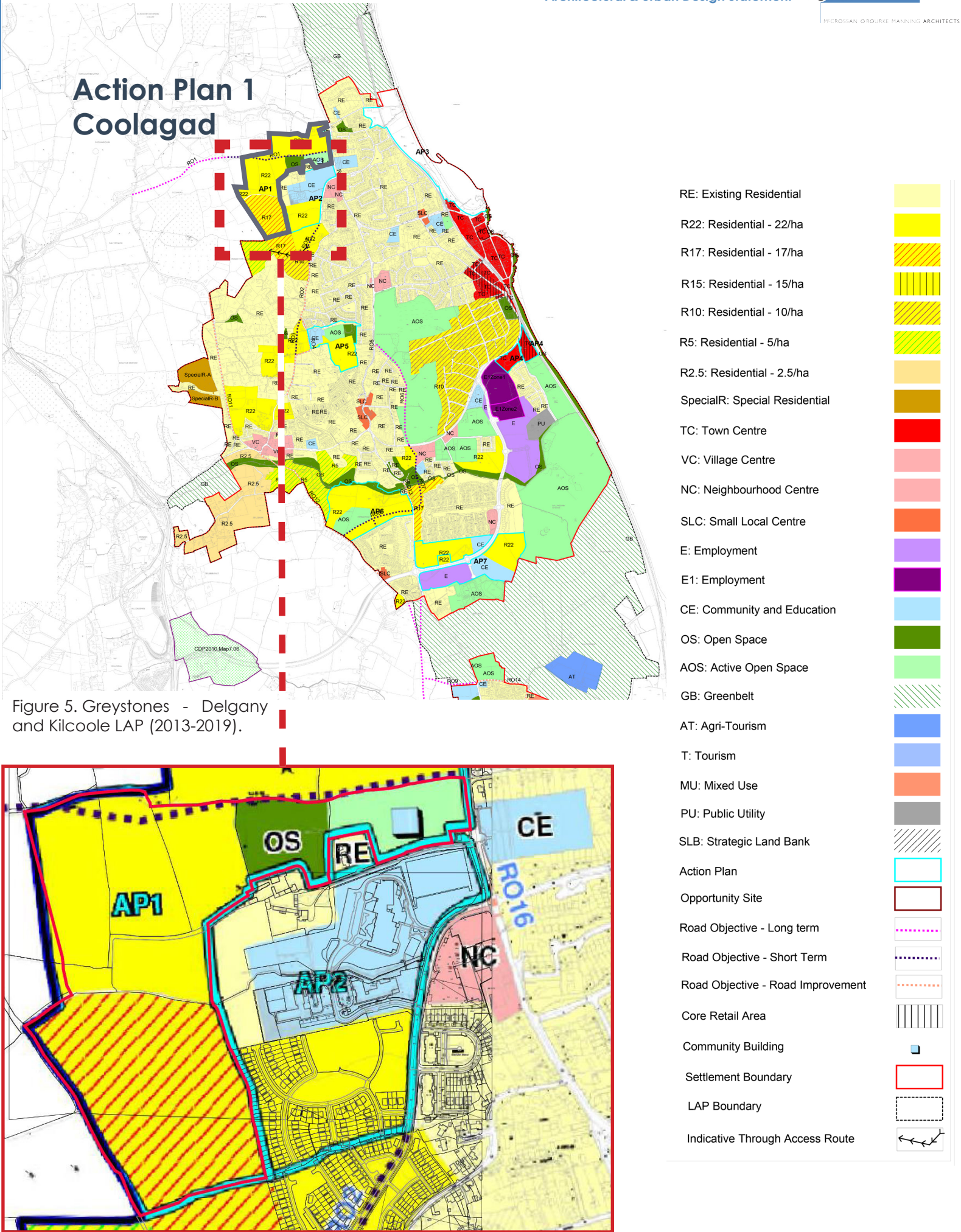
3 PLANNING FRAMEWORK, GUIDELINES AND STANDARDS

The scheme has been designed having regard to the following planning regulations, technical guidance and regulatory documents:

- Project Ireland 2040
- National Planning Framework, 2018
- Regional, Spatial and Economic Strategy (2019-2031)
- Wicklow County Development Plan (2016-2022)
- Greystones - Delgany and Kilcoole Local Area Plan (2013-2019)
- Sustainable Urban Housing: Design Standards for New Apartments Guidelines for Planning Authorities, 2020*
- Guidelines for Planning Authorities on Sustainable Residential Development in Urban Areas, 2009
- Urban Development and Building Heights Guidelines, 2018
- Urban Design Manual, A Best Practice Guide, 2009
- Design Manual for Urban Roads and Streets, 2013
- The Planning System and Flood Risk Management Guidelines, 2009
- Childcare Facilities – Guidelines for Planning Authorities 2001 and Circular PL3/2016 – Childcare facilities operating under the Early Childhood Care and Education (ECCE) Scheme
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (2009)
- Climate Action Plan 2019

This Stage 3 submission has also been prepared fully considering ABP's Opinion on the Stage 2 submission lodged in December 2020. Section 5 of this Architectural and Urban Design Statement details our amendments made in response to the ABP items listed in this opinion.

Please refer to MDB Planning Report, Statement of Consistency and Material Contravention for further details regarding the alignment of the scheme with the statutory guidelines listed.



4 URBAN DESIGN RATIONALE

4.1 CONTEXT

Topography is one of the most significant features of the subject site. As seen in the sections below the subject site slopes significantly downward from the western boundary to the eastern boundary.

As presented in the diagram opposite, the overall layout has dealt with the topographical constraints by shaping an urban structure of organic cells that generally follow the existing contours. In this regard, the site strategy examines the sectional arrangement of buildings sitting into the hillside in order to minimise visual impact.

The site shows a clear relationship between topography, water courses and ecology. The northern portion of the site retains three hedgerows with mature trees, one traversing the site from north to south and two traversing east to west, following existing water courses across the lands. These natural assets and the tree cluster located in the south-eastern site corner are integrated into the site masterplan by locating them in well considered areas of public open space.

The existing steep topography has been converted from a constraint to an opportunity for a unique urban design rationale that embraces and boosts the organic landscape forms. The urban structure designed relies in the varying site ground levels, as shown in the overlay of topographical survey and cell structure provided opposite, achieving a terraced neighbourhood with its own character at the western urban border of Greystones. A fully connected and legible series of organically shaped housing cells combine to provide a layout that respects the site features and uses them as an integral part of the design solution.

As part of the site investigations, underground archaeology was discovered in the centre of the site. As seen in the diagram opposite, the orange hatch/ line shows the extent of the archaeological findings. We have taken account of this as part of the overall design rationale of the scheme by setting back the housing cells further to the south and the apartments block further north. The hatched orange area is to be removed to facilitate development whilst retaining a significant portion (c. 60%) of this archaeology. We are also taking the opportunity to use this area as part of the open space provision within the scheme. Please refer to Kevin Fitzpatrick Landscape Architects design reports and IAC Archaeology report for further information.



Figure 6. Overlay of urban structure and topographical survey.



Figure 7. Site sections (marked in figure above) of housing and apartment cells arranged according to the existing site topography.

4.2 CONNECTIONS AND PERMEABILITY

Enabling permeable movement within the scheme and to provide proximate ancillary community facilities is vital to the creation of a strong community and is a vital part of the urban design rationale. A network of pedestrian and cycle friendly routes throughout the site is created to provide vehicle-free future connections to the adjoining residential, educational, community and retail amenities. In addition, strong links are created to the town centre and future residential neighbourhoods that will be developed in the northern and southern residentially zoned lands that adjoin the subject site of this application.

High amenity landscaped ways surround the housing cells (hatched blue) and multi-unit blocks (hatched red), providing linkages to neighbouring residential developments and local facilities such as the school to the east. These routes will provide a pleasant and safe environment for short journeys and encourage a move away from car-based transportation for such journeys.

The landscaped green buffer along the western boundary will be fully overlooked by houses and apartments, which will also enjoy the visual amenity of the adjacent agricultural lands. This ecological corridor will be continuous along the southern boundary including sylvan green ways for pedestrians and cyclists linking back to the central open spaces and housing cells of the scheme.

The scheme will deliver the opportunity for potential future connections with the School Campus and Neighbourhood Centre. A significant area of high quality landscaped space behind the community centre will mark the entrance to this new residential quarter. This area will include an area of active open space which will enjoy the benefit of changing facilities located in the community building adjacent. This facility will be handed over to Wicklow County Council. These amenities will benefit not only the residents of the new scheme, but also the greater community of Greystones

LEGEND


















- | | | | |
|---|--|---|--|
|  | New North Distributor Road (R01) |  | Community Hub (Crèche building and community building) |
|  | Main Road Network |  | Main feature entrances from proposed distributor road |
|  | External potential future linkages |  | Residential zoned lands |
|  | Internal green ways |  | Community Infrastructure zoned lands |
|  | Potential future connections to School Campus and Neighbourhood Centre |  | Neighbourhood Centre |
|  | Multi-unit cells |  | Housing cells |






Figure 8. Site links and permeability diagram.

Internally, a clear hierarchy of streets and interlinked vehicular free routes will allow for sustainable and healthy movement within the envisaged new community, relying on a consistent and integrated public realm design, including primary and secondary streets, vehicular-free ways and green ways through landscaped public spaces. As is demonstrated in the diagram adjacent - Figure No. 9.

LEGEND **STREET HIERARCHY**

-  New North Distributor Road (RO1)
-  Main Street Network
-  Primary access streets
-  Secondary streets
-  Shared surface streets

VEHICULAR FREE NETWORK

-  Parkland Non-vehicular links
-  Pedestrian/cycling way
-  Pedestrian way

 Housing cells

 Multi-unit cells

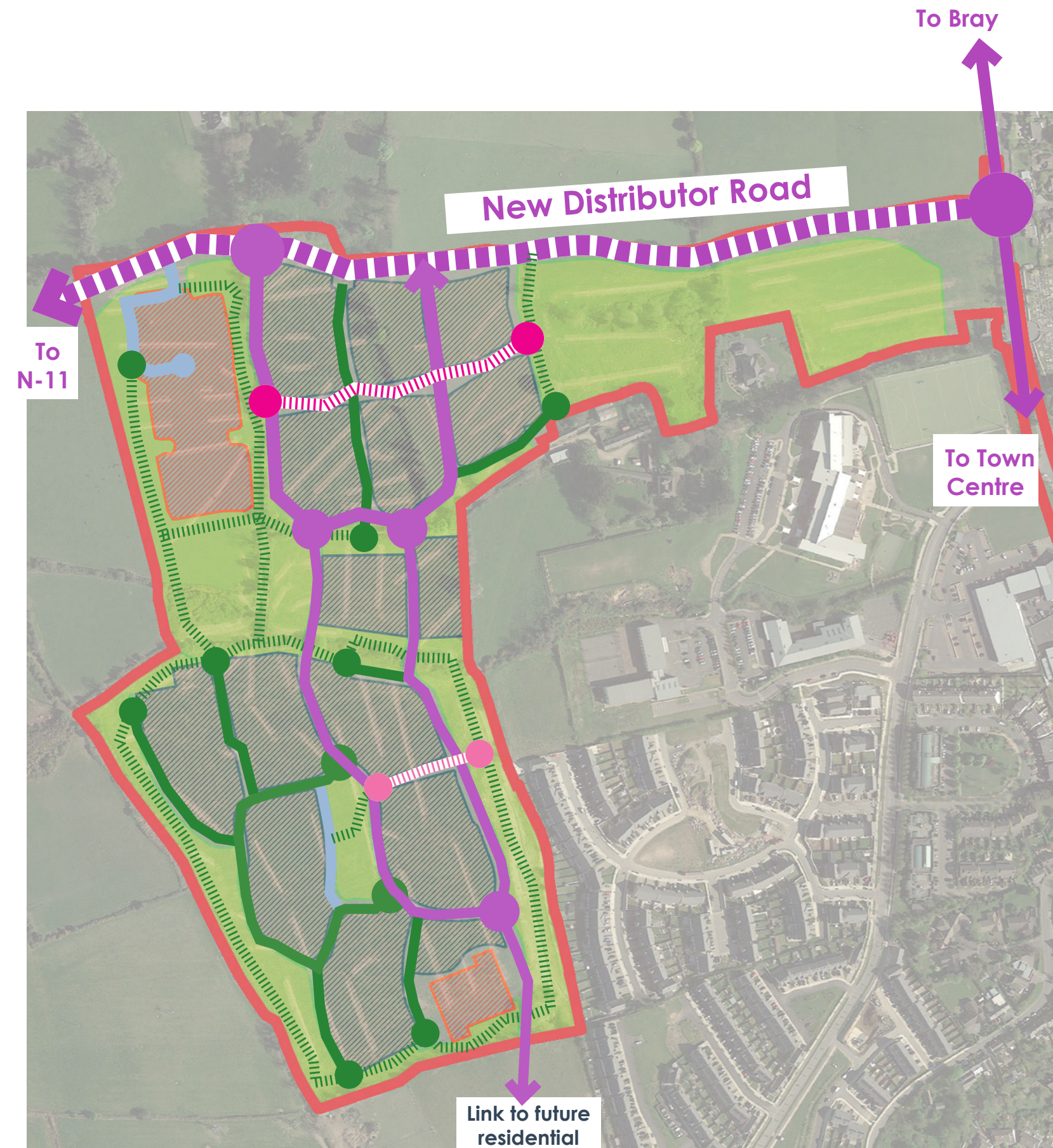


Figure 9. Diagram of internal street network.

4.3 EFFICIENCY AND DENSITY

Achieving a sustainable density is one of the scheme's key drivers. A balance between integrating a legible and efficient residential scheme into the site topography and the delivery of an efficient urban structure has been achieved. The combination of housing, duplex and apartment typologies allows for a varied mix of unit types and sizes, while delivering an average net density of c. 36 units per hectare

The net density proposed is appropriate for the location of the scheme, at the north-western urban edge of Greystones Town, and fulfils the objective of delivering a compact, active and sustainable neighbourhood.

A significant landscaped buffer has been provided as a continuous linear amenity space along the sites western, southern and eastern boundaries. This area serves both as pleasant walk-able parkland but also transitions the site well at the interface with the agricultural lands located immediately to the west of the site. It also provides an attractive break in building between the proposed development and the future development lands to the south

Along the eastern boundary it provides a landscaped separation zone to protect the existing properties to the east from overlooking or any perception of overbearing from any of the buildings proposed at the south-eastern corner of the scheme.

Net density has been calculated in line with the "Guidelines for Sustainable Residential Development in Urban Areas". The following areas have been excluded from the overall gross site area outlined in order to calculate the net density proposed:

- The New Distributor Road
- Extended drainage works/ connections outside the site
- All zoned passive and active open space
- Significant landscape buffer/Linear park

Please refer to Figure 10. which illustrates the net developable site area used for density calculation purposes.



- Net Site Area
- Gross Site Area

SITE AREA CALCULATIONS

TOTAL SITE AREA :	260367		260367
Exclusions:			
Z.O.S (Zoned Open Space)	20051		20051
A.O.S (Active Open Space)	23554		23554
LINEAR P 1	20248		
LINEAR P 2	13441		
ROAD (Drainage)	11579		11579
DISTRIB. ROAD	8096		
NET SITE AREA :	163398	16.33 HA	205183

Figure 10. Table and diagram of site exclusions for net density calculation.

4.4 VARIETY

The proposed residential development addresses the existing context and scale surrounding the site with a variety of unit types. The concentration of higher density apartment development is located adjacent to the existing central green belt, with the building massing built into the site topography through a series of building steps & undercroft / basement car parking. Overall, the site is made up of a strong mix of housing and higher density apartments to achieve a sustainable density of 35.8 units per hectare. A mix of 60% Housing, 5% Duplex and 35% Apartments is proposed delivering a varied mix of typology throughout the scheme.

Throughout the development there are 7 no. principle house types proposed and 16 variants depending on which of the 4 proposed character areas they are located. These vary in form and are detached, terraced & semi-detached. The apartments proposed in the northern portion of the scheme which will provide a total of 203 units in a mix of 1, 2 and 3 Bed apartments.

The mix of dwelling type and size will allow for the community to remain together over time. For example should older people need to down size at any stage, they can move within their own development into a small dwelling if and when their space requirements change. Similarly younger owners can trade up to larger units later in life as the need arises. A crèche is also proposed as part of the development with direct access to its own play area. Overall the proposed development provides a mix as outlined below:

Dwelling typology	Totals	1-bed	2-bed	3-bed	4-bed	5-bed
Houses	351 units	-	-	207	140	4
Duplexes	32 units	-	16	16	-	
Apartments	203 units	65	123	18		
Overall totals	586 units	65	139	238	140	4
		11%	23%	41%	24%	1%

Figure 11. Table of residential mix proposed.



Figure 12. Unit type Diagram

4.5 INCLUSIVITY

A wide range of dwelling types and sizes are proposed. The needs of a variety of households will therefore be met. 1 Bedroom, 2 Bedroom, 3 Bedroom, 4 Bedroom and 5 Bedroom units are all proposed, with the range of typologies split between houses, duplexes and apartments. The range of different typologies will cater for different/emerging living requirements and in terms of flexibility, the option to downsize or extend is provided for. This advantage of the adaptability of the proposed scheme will form a strong community within the development for many years to come.

A total of 586 units will be provided.

Easy resident and visitor access is provided for throughout the scheme. The apartment buildings are subdivided into distinct zones, with level access for each core provided from the perimeter footpaths. In each apartment core there is a stairs and an accessible lift, serving all floors and linking car parking, bin stores and ancillary areas.

The design of the buildings are all in accordance with Part M of the Building Regulations and will also have regards to the principles of universal access. This will foster an inclusive approach to the design of the built environment.

The public open spaces, landscaping, footpaths and routes are designed to minimize changes in level in as far as practical and to prioritize easy pedestrian & cycle movement, avoiding unnecessary physical and visual barriers. This network of varied public open spaces has been designed to provide access to people of all ages. A detailed Landscape Masterplan proposed by Kevin Fitzpatrick Landscape Architects has been provided as part of this submission. The proposed linear Public Parks together with the proposed open spaces located in both the northern and southern portions of the site will provide a visually attractive amenity both for residents of the proposed scheme and the wider adjoining residential zones.

In addition a community building and childcare facility are proposed to satisfy the needs within the scheme and adjacent residential estates. Located at the main entrance of the scheme (see figure 13), this new community hub will be fully accessible from all locations through the R-761 road and the new north road (R01 objective) and it enhances the existing retail and educational amenities that adjoin the scheme in the east.

Both the Active Open Space and Public Open Space are proposed and will cater for a range of activities to meet the needs of all age groups as they provide a range of play areas and outdoor equipment.



Figure 13. 3D view of site layout.

4.6 PUBLIC REALM

The development proposed at Coolagad, Greystones will contribute both in terms of delivering a high-quality housing scheme and also creating a neighbourhood with a strong sense of place. This objective is mainly achieved by the provision of the following:









- an interconnected network of landscaped open spaces.
- a permeable and hierarchical street network to promote sustainable and safe movement throughout the site and to proximate amenities is interlinked to the network of open space.
- the combination of high quality public amenity with an ordered street network which is anchored off the large park at the entrance to scheme which links the scheme to the greater Greystones community

The existing natural assets, namely water courses, mature trees and hedgerows, and topography are considered as opportunities to deliver a unique landscaped open space network. The scheme provides a well proportioned distribution of open spaces throughout the entire site. In this regard, perimeter green corridors, marked with green dashed lines in the diagram opposite, run along the site perimeter and create north-south pedestrian and cycle routes throughout the site. These also facilitate connections into future development lands to the south and north, in addition to existing educational and retail amenities to the east. The overall network of corridors and parks avail of natural surveillance, with units directly facing them. These landscaped areas also provide an attractive transition to the agricultural and existing developments bounding the site.

Green routes, marked in green dashed line in the diagram opposite, will connect the major landscaped areas envisaged to the parks, highlighted with a green hatch). A large central open space is provided immediately south of the proposed apartments. This larger open space has been strategically located separating the apartment and housing zones. It is also located in an area of population concentration due to the increased density of the apartment provision at the north western extremity of the site. The southern portion of the site will benefit from a more contained park located in the middle of the southern site portion. Its arrangement within the overall layout of housing cells will ensure a high passive surveillance and full accessibility from the adjacent dwellings.

The quantum of open space provided exceeds the requirement for this land use zoning at a total of 40% of the overall site. As specified in the Wicklow County Development Plan" Public open space shall be provided in accordance with the standards set out in Section 6. In particular, - public open space will normally be required at a rate of 15% of the site area "

LEGEND

-  Landscaped Public Open Spaces
-  Communal Open Spaces
-  Main active focal points
-  Potential connections to School Campus and retail centre
-  External future connections
-  Perimeter green corridors
-  Internal vehicular-free routes
-  Links between green spaces

Reference image of pedestrian/cycling greenway (Honey Park, MCORM)



Reference image of active open space attenuation pond (Honey Park, MCORM)



Figure 14. Diagram and character images of landscaped open spaces and green ways.



Reference image of generous open space including water, overlooked by apartments (Honey Park, MCORM)



CGI of the scheme's eastern corridor overlooked by linear duplex building and houses.



CGI of scheme's pocket park, including water, overlooked by house.



4.7 LAYOUT

The layout integrates both networks of streets and landscaped public spaces within a permeable, safe and enjoyable public realm which is accessible and proportionally distributed throughout the overall site masterplan proposed.

The ecological greenways, highlighted in green in Figure 15, bound the scheme along the western and eastern edges, from south to north, connecting with two main internal pedestrian routes.. The overall public realm is adequately considered in terms of both activity and surveillance. Residential cells are shaped strategically to front and overlook to the envisaged parks and green ways, as marked in grey opposite.

The hierarchy established in the street network designed also contributes to a strong and efficient layout in terms of both legibility and sustainability. This principle is reinforced with a consistent hard landscaping design, which selects materials and treatments of public realm surfaces according to their function within the overall network. Please refer to Kevin Fitzpatrick Landscape Architects drawings and design rationale for detailed information in this regard.

Car parking is also integrated in the overall layout. It is provided within the landscaped curtilage of the houses so as to avoid a car dominated streetscape. In addition, apartments will benefit from a basement car parking that takes the existing topography as an opportunity to integrate within the undulating landscape and minimise the impact of vehicles on the public realm.

All public areas proposed are clearly defined, providing clarity between public and private realm, ensuring full passive surveillance and a safe environment for residents. The use of screen walls has been minimised. Active gables have been created in the A1, B1 and the D type housing to ensure maximum surveillance of greenways, parks, streets, including the proposed new distributor road crossing the scheme along its northern edge, and zoned open spaces.

Furthermore, the proposed layout provides a continuity with local urban pattern while also exploring opportunities for higher density at carefully selected locations. These multi-unit elements are also surrounded by the main green open spaces of the proposed masterplan, featured in green opposite, in order to ensure its adequate insertion within the existing residential fabric and a provision of generous public and communal areas, both meeting standards required and future residents' expectations.

In addition to the residential built environment proposed, the community building and crèche are proposed to be integrated in the overall layout. They are both located at the main entrance of the scheme (highlighted in blue in the diagram opposite), adjoining Rathdown Road to the east and the playing field within the zoned active open space to the west. This will generate a dynamic relationship between these two community buildings and the active open space, In addition, the location of the crèche and community building directly connecting with Rathdown Road and bus stop will also serve adjacent residential neighbourhoods, such as Waverly and Sea Green. The scheme has also considered the proximity of the existing retail centre and educational campus when proposing the crèche and community building .Envisioning an active community hub at this new residential extension of Greystones Town. The insertion and design of both community building and crèche is described in the following pages.

Figure 15. Diagram of public realm and layout.



Coolagad Community Building is located fronting on to the Rathdown Road. Together with the Crèche Building, it establishes the main entrance of the development towards the west. As presented in the image opposite, the two brick volumes face each other in a strong relationship based on architectural form, materiality and function of both buildings.

The northern side of the building accommodates the community room, a versatile open space for social and recreational activities, illuminated by 3 sets of vertical openings, one set for each free side: East, North and West. The vertical design of the glazing, illustrated in the west elevation below, ensures adequate illumination and, at the same time, a higher level of privacy from outside.

The pitched roof raises to the north, highlighting the entrance to the development and grades up to the ridge level of the 2-storey crèche, located opposite.

While the main volume is characterised by a red brickwork skin with vertical openings, the opposite element to the south is fully finished with white render and equipped with high-level horizontal windows, particularly appropriate for the changing rooms accommodated behind. Externally, the cohesiveness between the two volumes described above is emphasised with a full height glazed opening, which overlooks the main road. Internally, a linear passage connects the two entrances of the building from east to west. Both entrances are identified with a metal frame canopy that bounds the openings from top to external ground floor level. The use of high quality materials and finishes to the entrance set piece of the scheme can be seen in the individual design presented below.

The Community Building has the scope of upgrading the facilities of the area, promoting healthier lifestyles and favouring interaction among residents, along with adding an individual and aesthetic architectural character to this prominent location at the entrance of the scheme.

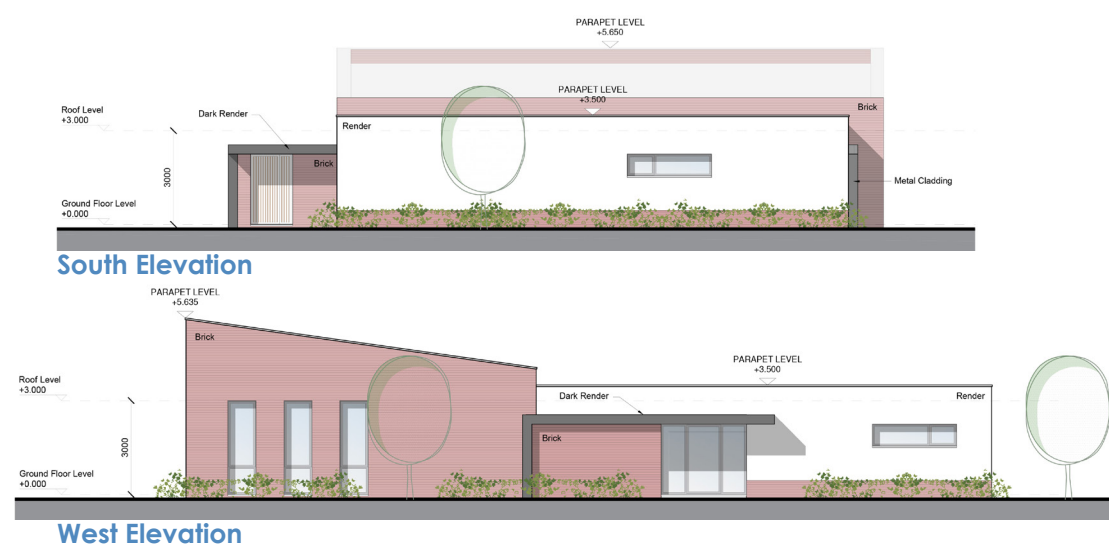


Figure 16. Community Building south and west elevations.

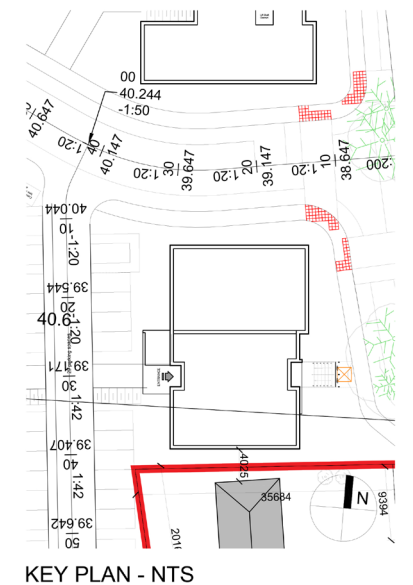


Figure 18. CGI of entrance set piece created by the community building (left) and crèche building (right).

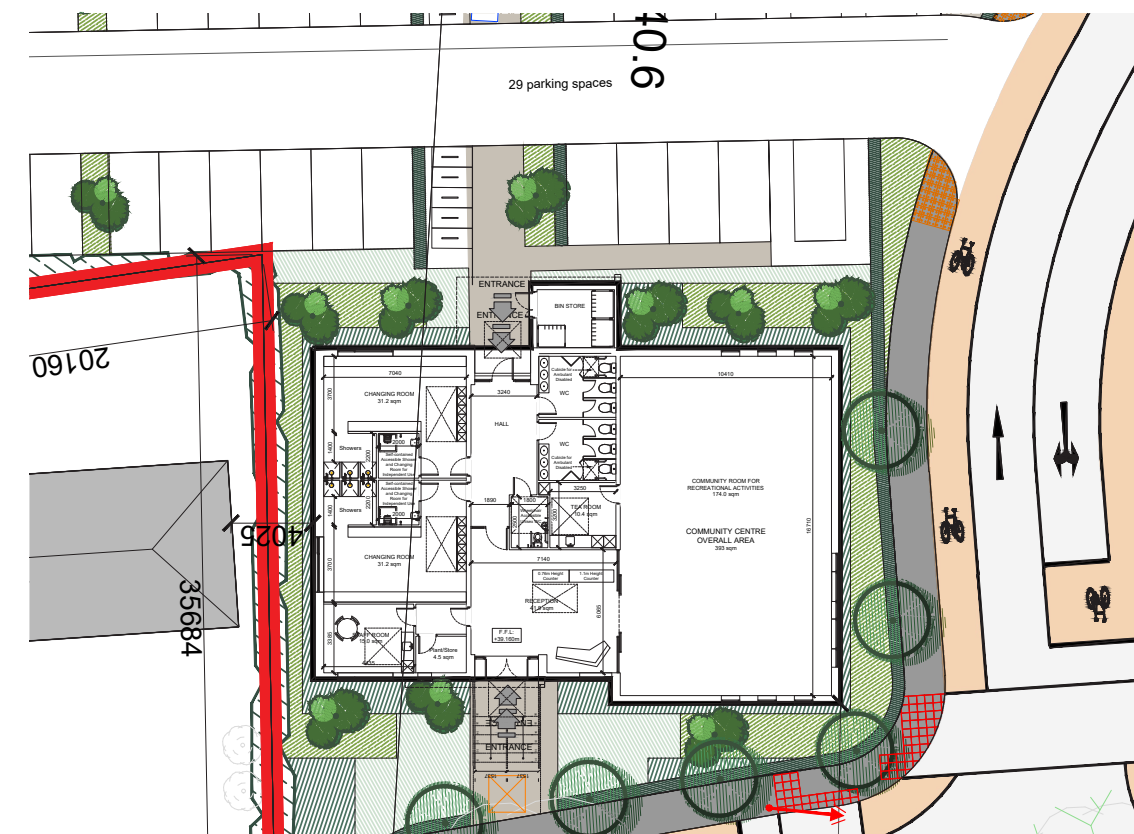


Figure 17. Community Building Plan..

The **Crèche Building** replicates the same principles applied for the community building presented in the previous section. The architectural design developed for the childcare facility takes cognisance of its outstanding location within the overall layout, as it presents the scheme at the junction between Rathdown Road and the new distributor road giving access to the development. Both brick volumes overlooking the new distributor road are strongly related in terms of the built environment proposed at this location and create a cohesive set piece entrance which announces the scheme onto the Rathdown Road.

A predominant 2-storey building is proposed, characterised by a red-brick facade and regular openings. A sequence of vertical windows punctuates the south elevation, marrying the architectural language employed on the community building. External materials, such as brick, render and stone, are applied throughout the building to ensure a high-quality finish and a robust protection against weathering into the future.

The main entrance to the crèche is located on the south-western side, connected conveniently to the drop-off and pick-up parking area. An additional entrance/exit is located to the north, connecting to the outdoor play space of the childcare facility. This play space will be secure to ensure safety for all its users.

The crèche includes 9 classrooms for a total of c.135 children, along with an office, kitchen, staff room, 2no. stair-cores, a centrally positioned lift and rest-rooms on each floor level. Classrooms for younger children are also equipped with baby changing rooms and sleeping areas at ground floor. In addition, a versatile space is provided to be used as a dining or play room, depending on the needs.



Figure 19. Crèche Building elevations.

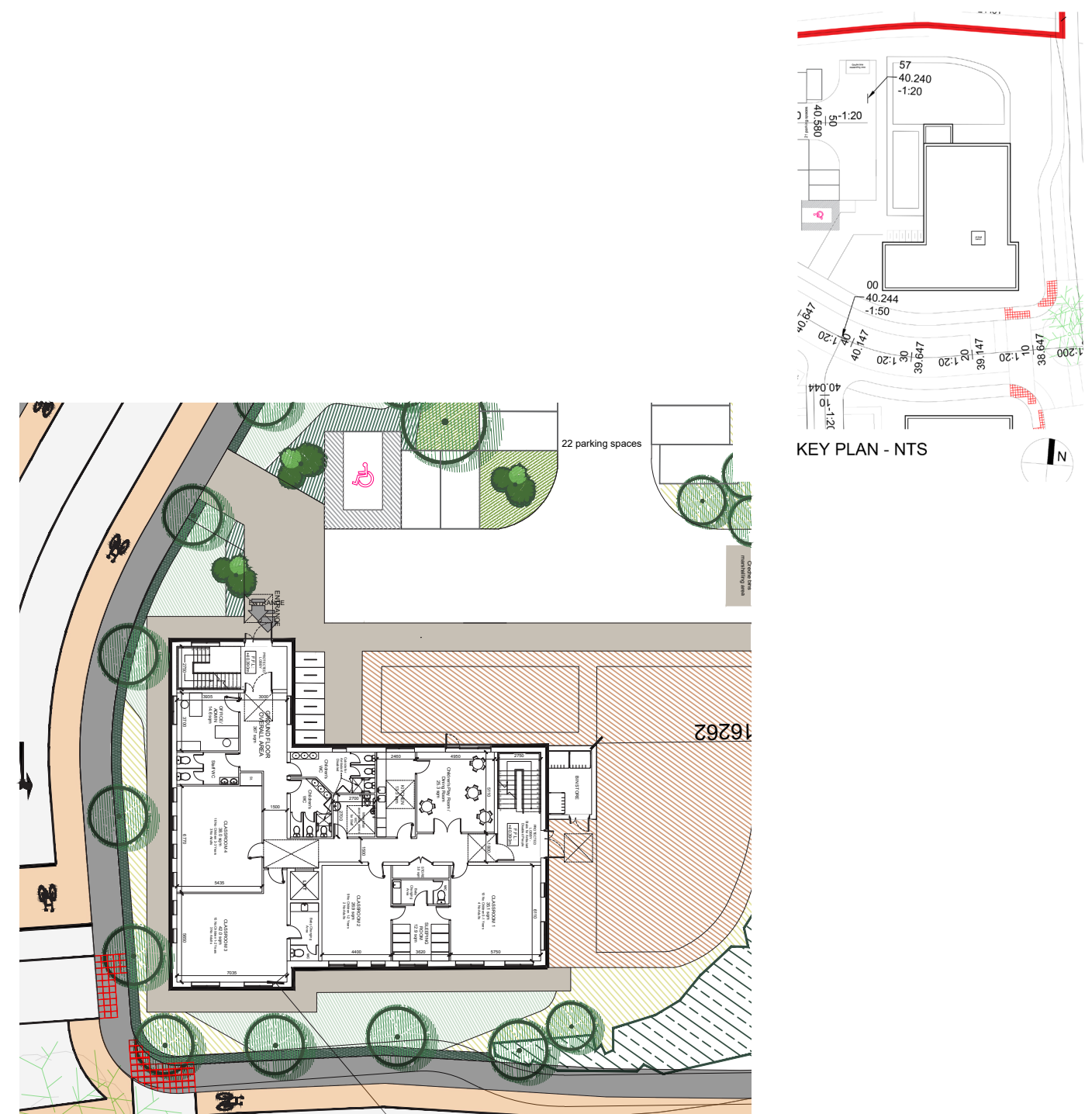


Figure 20. Crèche Building ground floor plan.

4.8 DISTINCTIVENESS

A total of 4 no. character areas are proposed across the scheme to give each area an identifiable sense of place. Building typology, materials and finishes, individual unit design proportion and open space design are all used to develop an individual sense of place for each separate character area.

The proposed development is bisected by the existing central green belt running north / south and the existing water course and tree line that runs east to west which separates the site into three distinct architectural zones. The building typology within each of these zones has been informed by the existing site topography, with the individual character areas further described in the next section of the design rationale.

Access to all 4no. character areas is provided off the new distributor road. Areas 1, 3 & 4 are characterised by lower rise housing accessed from the new distributor road and less trafficked 'Homezone' street types as applicable. These areas have been designed with individual design styles, varied unit types and a mix of materials and finishes that gives each of these areas a discernible 'sense of place'.

Character area 2 is characterised by the higher density apartment blocks A, B, & C, all located off the main thoroughfare, with the lower density housing to the east of the existing landscaping belt creating a continuation of the visual style from blocks A, B through to C. They have limited 4 storey elements at their East façades with a perceived 3 storey scale at their podium level as they are built into the hillside. The apartment blocks are also designed to provide overlooking and passive surveillance to the Linear Park along the western boundary.

The primary external finish for the development will be brick across all typologies. Depending upon the character areas within the site the materials vary. Between character areas there will be distinct differences between brick types and material choice, elevation treatment and building form in order to create variety and visual interest across the scheme. This material choice will ensure that the buildings proposed are durable as well as being of high quality visually. High quality planting in conjunction with existing mature trees, site features and native vegetation will establish a strong character and identity for the scheme. This material choice is detailed at subsection 4.12 "Detailed Design".

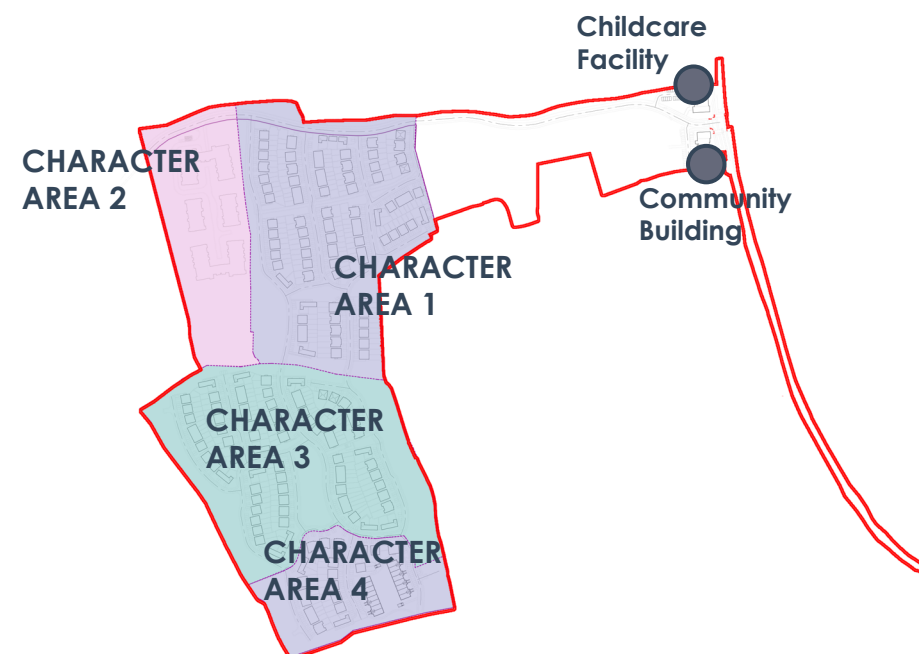


Figure 21. Conceptual diagram of distinctiveness and focal points.

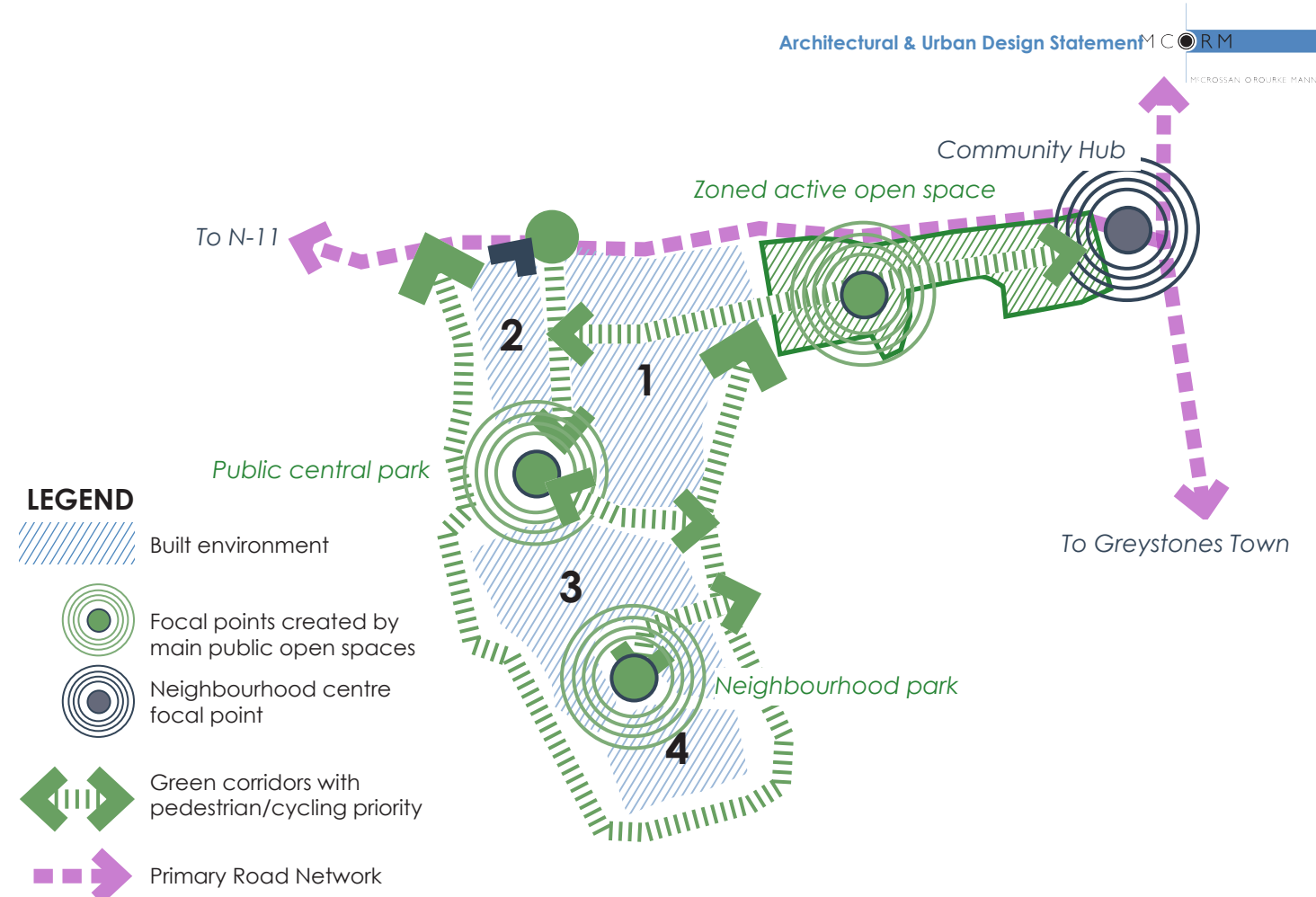


Figure 22. Conceptual diagram of distinctiveness and focal points including landscape features



Figure 23. CGI image of view south from the proposed distributor road..

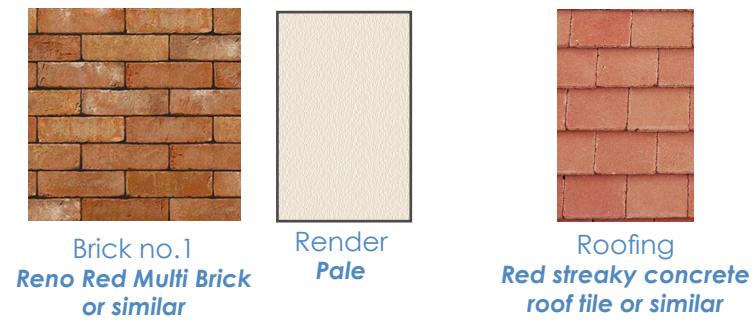


Figure 24. Main external finishes of character area 1.

CHARACTER AREA 1 locates itself in the northern portion of the scheme between the cell of apartments in the west and the zoned active open space in the east. The western boundary of this character area is defined by a link road running in parallel to the retained treeline, which is integrated in to a landscaped corridor overlooked by both the apartment buildings and housing frontages. The aforementioned connects the distributor road and the central park located to the south.

The street network is arranged following a N-S direction, owing the shaping of cells to the integration with the existing topography. A central pedestrian and cycling way crosses this area perpendicularly, as highlighted in the diagram opposite. Pedestrians and cyclist will therefore be able to safely move from the western areas of the site to the zoned active open space at the east, which comprise an attractive parkland including a MUGA and outdoor leisure and sport facilities. The zoned open space is overlooked by the active frontages of cell no. 1 in this character area providing good passive surveillance along the western boundary.

As shown in the figure opposite and elevations below, all houses present a unified and aesthetic external character by means of same red brick type, applied in combination with pale render.



Figure 26. Key plan of character area 1.



Figure 25. Main elevations of character area 1. S



Figure 27. CGI of character area 1 housing.



Figure 28. Main external finishes of character area 2.

CHARACTER AREA 2 is located in the north-west portion of the scheme and in a compact arrangement of 4-storey apartment buildings arranged around a landscaped courtyard that will benefit from the unique views to Greystones coast, to the east, and proximate mountainous woodlands, to south and west. This single-cell character area is shaped longitudinally in a north-south configuration, following the topography and overall urban structure of the scheme. The limits of this area are well defined by the natural assets retained within the scheme along the east, west and south limits of this character area. Particularly, the retained central tree line running north to south located to the east of the block and the southern stream crossing from east to west, along with related hedgerows and tree lines retained at the public landscaped area proposed, which is conceived as a nature-based park at the core of the scheme.

The design of the apartment buildings generates multiple access points to the proposed communal space from the public realm as the central rectangular buildings separate from the U-shaped corner pieces. The car parking is provided for in an undercroft/basement solution shielded from the public realm by way of landscaping and site topography. This in turn generates a generous landscaped podium which the residents can enjoy.

In addition to the semi-private open space enclosed by the apartment buildings, the area will benefit from a generous public realm, including the aforementioned integrated hedgerow adjoining character area 1 and the ecological corridor bounding the scheme along the western edge. Both linear open spaces connect the various entrances to the apartments' communal open space with the central park located south and the principal road circulating along the northern edge. The western and southern elevations of the apartments block provide natural surveillance over both the linear park and central park to the south. The vehicular entrance to the overall cell is envisaged at the north for undercroft parking from the planned distributor road, thus resulting in a generally vehicle-free environment.

The apartment buildings proposed are in contrast to the traditional housing proposed in the surrounding cells to the east and south. Consequently, distinct materials are applied at this location, as displayed in elevations below and image opposite. Most prominent façades will present a combination of buff and grey bricks while secondary elevations will be finished in a mix of pale and dark render.



Figure 29. Elevations of character area 2.



Figure 30. Key plan of character area 2.



Figure 31. Artist's impression of character area 2 overlooking central green space

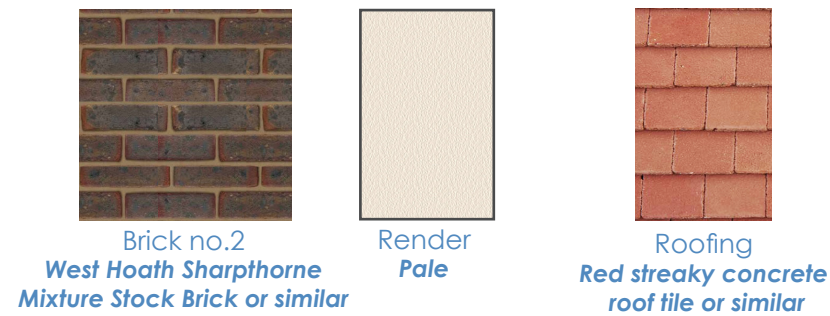


Figure 32. Main external finishes of character area 3.

CHARACTER AREA 3 is located south of a the large central open space and the retained natural corridor, including existing trees, hedgerows and stream, which crosses east - west along the aforementioned landscaped open space (see figure 34). It also enjoys a central landscaped open space containing play facilities and walkways for residents as well as the wider public to avail of. Ecological corridors run along the western and eastern boundaries, providing potential future links from this area to educational and retail amenities to the east and connecting with the central park of the scheme. This character area consists of detached, semi-detached and terraced housing, with many of these typologies fronting onto these open spaces to ensure activation and overlooking.

As shown in the image opposite, high quality housing frontages overlook the landscaped open space, which tie in with the surrounding low-rise urban grain of the traditional semi-detached houses located in the neighbouring development - Waverly.

Primary access streets connecting from the northern portion of the site give access to secondary and shared-surface streets, which prioritise pedestrian/cycling journeys and will therefore boost vehicle free movement from inner locations to the bounding landscaped network of public open spaces.

All houses in character area 3 will be externally finished in a combination of red mixture stock brick and pale render, as shown in elevations below.



Figure 33. Elevations of Character Area 3.



Figure 34. Key plan of character area 3.



Figure 35. CGI of character area 3 and 4 (background).

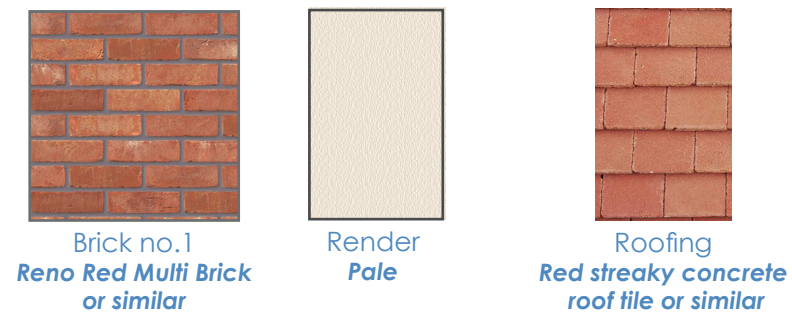


Figure 36. Main external finishes of character area 4.

CHARACTER AREA 4 is located in most southern portion of the scheme, adjoining both existing (Waverly and Sea Green) and future residential developments. The northern limit is defined by a curved street that circulates from east to west, whilst the rest of the perimeter is defined by the ecological corridors running along the western and eastern boundaries of the scheme, which wrap around at the southern edge. We have made provision for a future potential vehicular connection to the residentially zoned lands located south of the subject site. Should these lands be developed at a later stage, permeability through the scheme is catered for.

One of the 2no. cells this character area is comprised of two linear duplex buildings of 32no. units in total. These elements face each other enclosing a generous landscaped communal area for the residents of these dwellings. The aforementioned semi-private space can be accessed from a pedestrian walkway that splits the cell into the duplex curtilage and the traditional housing fabric cell. Whilst the duplexes' communal space is spatially continuous from the overall public realm, it is clearly identified by strategic planting at most of its northern and southern limits to dissuade undesired trespassing and overlooking. In addition to the bounding greenways previously named, this portion of the site will also benefit from the park at the core of character area 3 due to its proximity and accessibility from this location through the proposed network of share-surface streets.

Red brick (type 2, indicated above) and pale render will generate a unifying image of duplex buildings and houses at this location, differentiating from the neighbouring houses at character area 3, which are finished applying red brick type 1.



Figure 37. Character Area 4 elevations (semi-detached houses above and duplexes below).



Figure 38. Key plan of character area 4.



Figure 39. CGI of character area 4.

4.9 ADAPTABILITY

Both the overall scheme and the individual residential typologies have been designed to successfully deal with change as follows:

- The wide range of residential typologies, varying in form and range, will enable households to move within the scheme as their needs change along life.
- All house types are designed to meet the requirements 'Quality Housing for Sustainable Communities' (2007) and in many instances more generous internal spaces are proposed to increase the quality of the unit types.
- The buildings will be constructed of traditional construction, highly insulated with internal layouts that can be easily adapted in the future.
- Potential future expansions into roof spaces or rear gardens of certain dwellings has been considered in the detailed design of the residential typologies envisioned, as highlighted in the diagram below.
- The houses will be constructed to current building regulation standards delivering the required energy rating.
- The overall network of public open spaces, including parks and bounding site buffers, will be resilient to natural hazards, such as flooding, by incorporating efficient nature-based drainage solutions and preserving the existing biodiversity in which the built fabric integrates.



Figure 40. Aerial view of housing cell indicating back-to-back minimum distance and adaptability opportunities.

4.10 PRIVACY AND AMENITY

The buildings will be constructed to NZEB standards designed with an economic deep-plan layout. Using a deep plan format enables an efficient use of land while also providing for an efficient thermal envelope. Access via the end gables of a large number of houses provides good passive surveillance of the streets and open spaces they address. The houses will be constructed to current Building Regulations standards which target giving a high level of energy efficiency. All houses are dual or triple aspect. Separation distances have been maintained in accordance with best practice in terms of overlooking and all houses will be designed to have good levels thermal performance, comfort, daylight and sound insulation. All house types are designed to meet the requirements 'Quality Housing for Sustainable Communities'. They also comply with the required provision of private rear gardens in accordance with Section 7 Appendix 1 of Wicklow County Development Plan. The standards are set as follows:

Private Open Space minimum:

- 1-2 bedrooms: 50m² of minimum private open space per house.
- 3+ bedrooms: 60-75m² minimum private open space per house.

The areas of each individual garden are indicated on the site layout plans, drawing nos. 20005-PL03 to 20005-PL08 inclusive demonstrating compliance with these standards. Formal planting and on curtilage parking areas are provided to the front of the dwellings proposed creating a defensible space between the public road and the built edge. Wide fronted house types are provided with bedrooms orientated to the front of the house to prevent overlooking of private rear gardens.

Distance between internal façades of houses in rear gardens and apartments/duplexes in communal courtyards are set at a minimum distance of 22 metres, as highlighted in image opposite.

The duplex units are designed with deep plans that allow an efficient use of land and also provides for an efficient thermal envelope. All duplexes are dual aspect. Apartment units are generally designed as per a dual aspect arrangement, maximising natural light and also proposing an energy-saving thermal envelope. Both apartments and duplex buildings will be constructed according to applicable Building Regulations. Noise transmission between different apartment and duplex units is minimised by applying acoustic insulation at internal partitions separating each dwelling.

In addition, they are designed to meet the requirements 'Sustainable Urban Housing: Design Standards for New Apartments', providing an exclusive area of private open space for each residential unit, following the standards set in the aforementioned guidelines, as outlined below:

Minimum floor areas for private amenity space

Studio	4 sq m
One bedroom	5 sq m
Two bedrooms (3 person)	6 sq m
Two bedrooms (4 person)	7 sq m
Three bedrooms	9 sq m

Figure 41. Table from 2018 DOHPLG Design Standards for New Apartments.

Generous storage provision for each dwelling has also been provided for all dwelling units. For storage provisioning in housing, the scheme has regard on the Quality Housing for Sustainable Communities: Design Guidelines. For apartments and duplexes, the development envisages an individual storage allocation that complies with the 2018 DOHPLG in this regard, as set in the table below:

Minimum storage space requirements	
Studio	3 sq m
One bedroom	3 sq m
Two bedrooms (3 person)	5 sq m
Two bedrooms (4 person)	6 sq m
Three or more bedrooms	9 sq m

Figure 42. Table from 2018 DOHPLG Design Standards for New Apartments.

Communal semi-private open space is provided for apartment and duplex units. These areas are clearly defined by the proper built forms while designed in spatial continuity and integration within the overall network of landscaped open spaces throughout the scheme. These communal amenity areas are provided generously over the minimum requirements established by the Design Standards for New Apartments (2018), which are:

- Minimum floor areas for private amenity space
- Studio 4 sq m
- One bedroom 5 sq m
- Two bedrooms (3 person) 6 sq m
- Two bedrooms (4 person) 7 sq m
- Three bedrooms 9 sq m

COMMUNAL SEMI-PRIVATE AREAS		
	Required	Provided
Apartments	1321 sqm	3994 sqm
Duplexes	256 sqm	1198 sqm

Figure 43. Provision of communal open space at apartments and duplexes.

Please refer to architect's drawings and House Quality Assessment for detailed information about the residential accommodation designed and private amenity provided.



Figure 44. Layouts of Apartment's and duplexes' communal areas.



4.11 PARKING

A range of car parking has been proposed, responding to location, topography, street type and building typologies. Parking will be provided in a range of ways and most likely in combination. These include:

- On street parking
- Undercroft parking
- Grouped surface parking

All houses are provided with 2.0no. on curtilage car parking spaces. In all cases, car parking areas are broken up by planting / trees to minimise their impact on the visual character of the street. The design of the car parking spaces to the apartment blocks has been carefully considered to provide a combination of a small number of accessible on street & undercroft/basement parking to ensure that the vehicular parking is less visible and does not dominate the streetscape. Please see Figure no. 45 below for artist impression of minimal on street parking at the vehicular entrance to the apartment blocks

Bicycle parking is possible in the rear gardens of all housing and secure bicycle parking is provided for in a series of enclosures distributed in the communal spaces serving the duplexes. Bicycle parking for the apartment blocks is provided for in a secure area in the undercroft. Other visitor bicycle parking will be provided for by means of external stands distributed around the development. Please see Figure no. 46 adjacent for car parking and bike parking layout located in the undercroft of the apartment blocks.

Parking to the crèche is provided for in accordance with Table 7.1 Appendix 1 of Wicklow County Development Plan, as follows:

"Childcare 0.5 spaces per staff member + 1 car parking space per 10 children. Additional spaces are provided for community use associated with the community use and outdoor sports activities in the open space".

Parking to the crèche is provided for in accordance with Table 7.1 Appendix 1 of Wicklow County Development Plan, as follows:



Figure 45. Artist's impression of entrance to apartments' undercroft parking.

In line with WCC development standards, 10no. cycle parking spaces are also provided to serve the playing field proposed at the zoned open space adjacent to the community building, complying with the ratio of 1 space for every 3 players, considering a maximum capacity of 30no. players. Similarly to the crèche the community also benefits from on surface parking directly adjacent, with fully accessible parking also provided. Please refer to MCORMs site plan and HQA for further details.

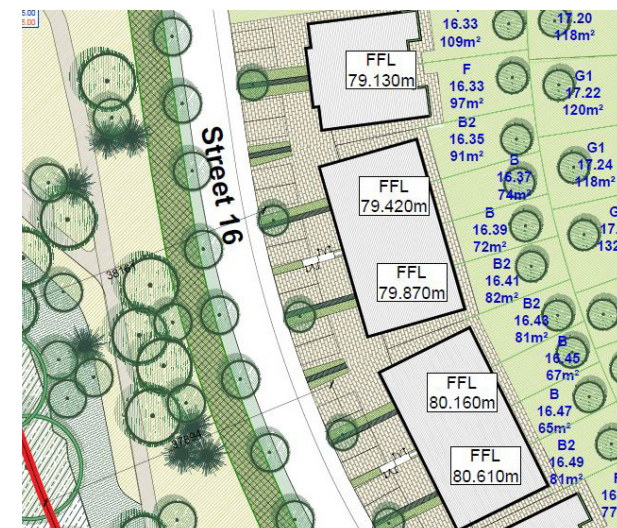


Figure 47. On curtilage Parking for houses .



Figure 48. Communal Parking for Duplex Units .

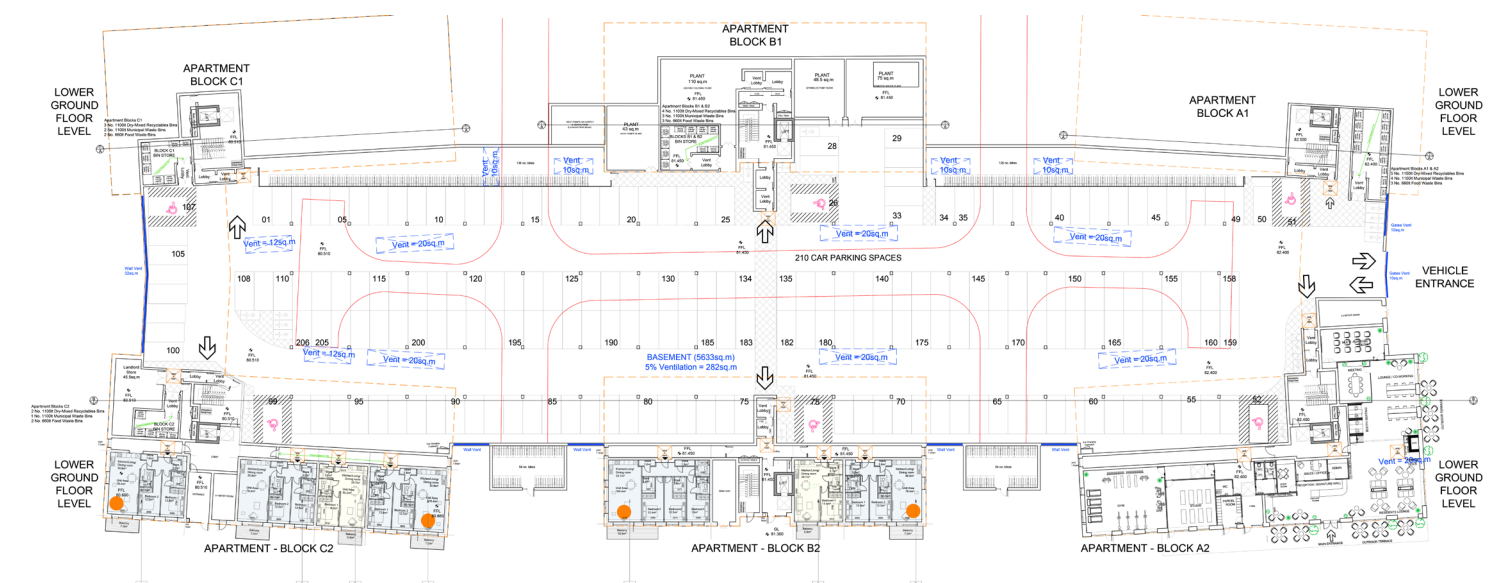


Figure 46. Layout of apartments' undercroft parking.

4.12 DETAILED DESIGN

DETAIL LANGUAGE AND MATERIALS

The proposed buildings employ a controlled palette of materials where detailing is intentionally sharp-lined and contemporary.

The primary materials for the development will be a mix of high-quality brick textures with complementary stone details in selected areas to the street elevations. The material choice will ensure that the buildings proposed are durable as well as being of high visual quality.

Each one of the 4 proposed character areas has legible unique features that will create a sense of identity and place, while applying a coherent architectural language through the use of repeating elements such as complementary brick types, window types, balcony treatments, stone surrounds and metal canopies. Such features will be discussed in more detail the next pages.

The use of these high quality, durable and low maintenance materials within the scheme will contribute to the longevity, appearance and character of the proposed development. The landscaped podium, defensible spaces/paving and soft landscaping have been detail designed by Kevin Fitzpatrick Landscape Architects with the full report accompanying this planning application

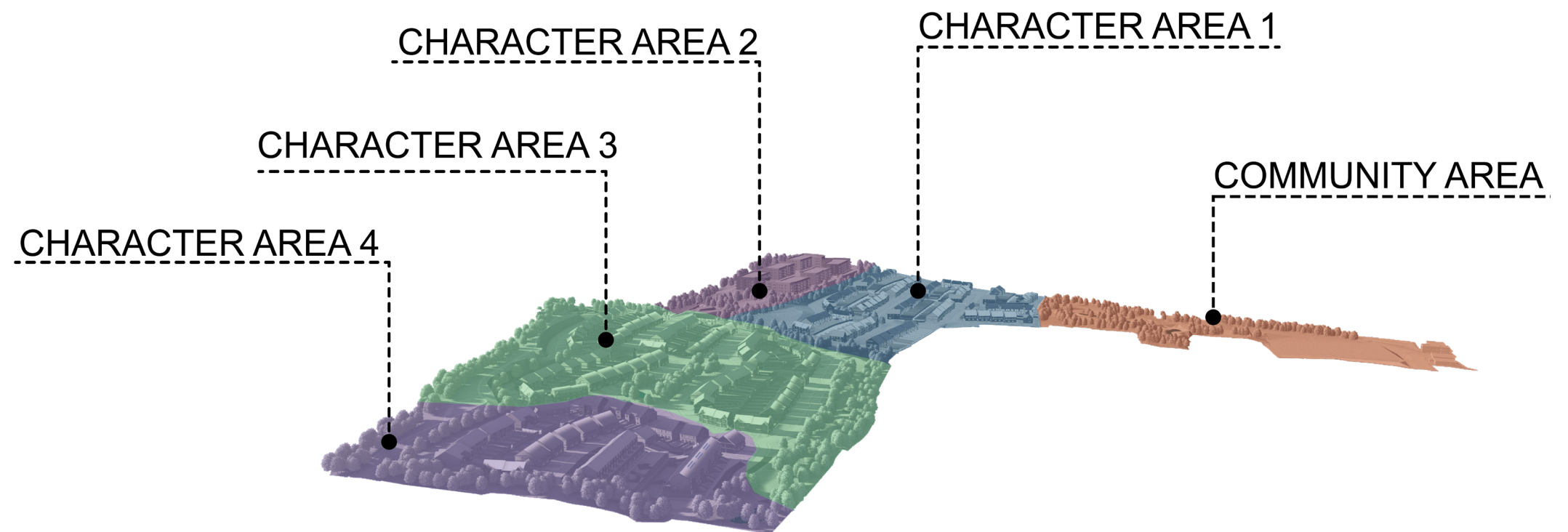


Figure 49. Character Area 3D view.



Figure 50. Views of different materials proposed throughout the scheme.

FINISHES AND DETAILING

BRICKWORK AND STONework

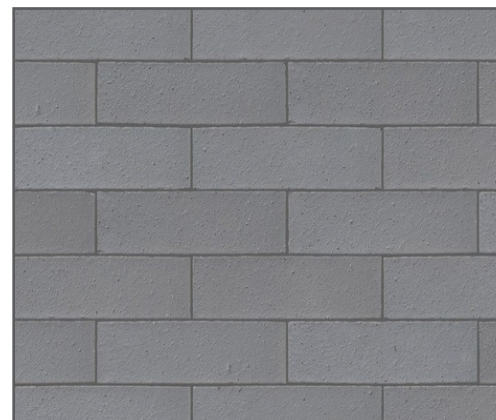
The scheme will consist of 4 shades of clay bricks together with pale and dark render. This complementary materials pallet is employed as a coherent family of materials that will run through the different character areas and create an unique identity to Coolagad

The muted buff brick colour will be complemented by the well defined dark grey brick details as well as a combination of dark and pale render in the proposed apartment buildings, while the houses and duplexes will have the red brick types depending on their character area with the red roof tile and pale render tying the whole scheme together in a cohesive manner.

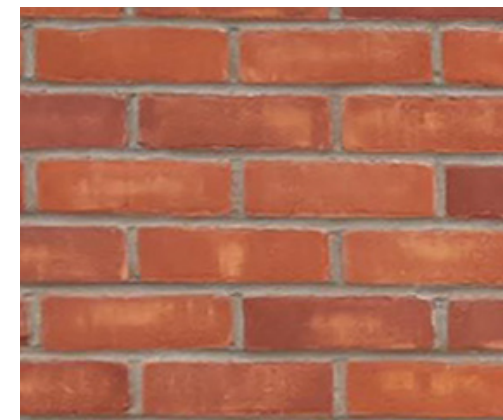
Stone surrounds are used carefully to define window openings, complement the brickwork and add to visual interest.



Buff brick
Mystique with grey mortar or
similar approved



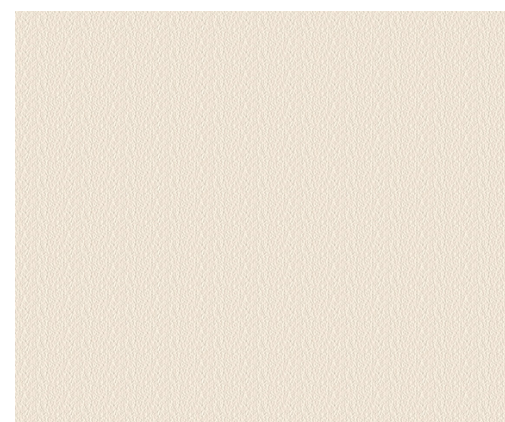
Grey brick
Staffordshire Smooth Blue Brick or
similar approved



Red brick type 1
Heritage red with grey mortar or
similar approved



Red brick type 2
West Hoath Sharpthorne with grey
mortar or



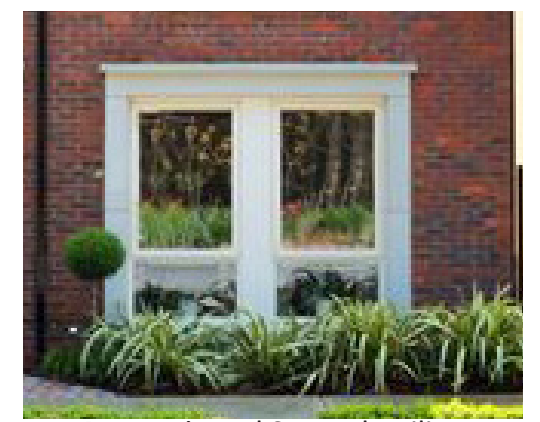
Pale Render



Dark Render



Red Roof Concrete Tiling



Reconstituted Stone detailing

Figure 51. Palette of main materials and finishes.

Architects elevation of Block A1 showing Residential Amenity to ground floor

WINDOWS

To deliver visual variety, add variations of perceived wall depth, together with a diversity of different detailing approaches to be applied to the in-wall opes:

- Large opes to the residential amenity spaces in the apartment block
- Well considered wall openings balanced through different facades creating a rhythm

In all cases, the aesthetic aim is to play on the contrast between solid and void between the glass and brick.

BALCONIES

Cantilevered balconies will project from the apartment blocks with balcony balustrading to be metal with a thin profile to deliver a clean appearance to the overall facades, as shown in figure 52.



Figure 52. Architect's elevation of Block A1 showing Residential Amenity to ground floor and example of cantilevered balcony.



Figure 53. CGI of apartment block from the south-west, showing the alternate of brick types and cantilevered balconies.

MATERIALS - APARTMENT BUILDINGS

The combination of glazed and solid surfaces is controlled, with the intention of creating visual interest while negotiating the volume of the buildings across the development. A play in different brick types to create a sense of hierarchy within the facade, while adding to the visual interest to the overall development. The aesthetic follows through to the balcony balustrade and the pressed metal canopies which announce the entrances to each individual block.

Blocks A1 & 2 and C1 & 2 have been designed with book end corners strategy, accentuated by the buff brick while the body of the building has a dark grey brick pallet. This aesthetic treatment follows through to Block B1 & 2 with the entrance cores defined by the grey brick, large glazed panels and pressed metal canopies.



Grey brick
Staffordshire Smooth Blue
Brick or similar approved

Buff brick Mystique with
grey mortar or
similar approved

Figure 54. Brick mix applied in apartments.

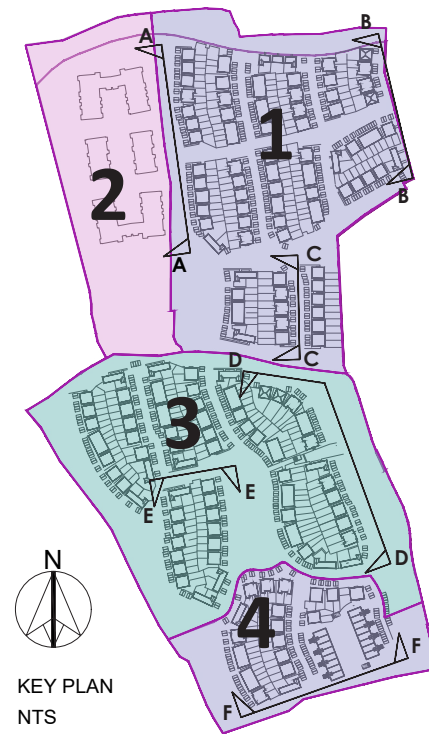


Figure 55. Key plan of character areas.



Figure 56. CGI view looking south to the eastern elevation of apartment buildings - character area 2.

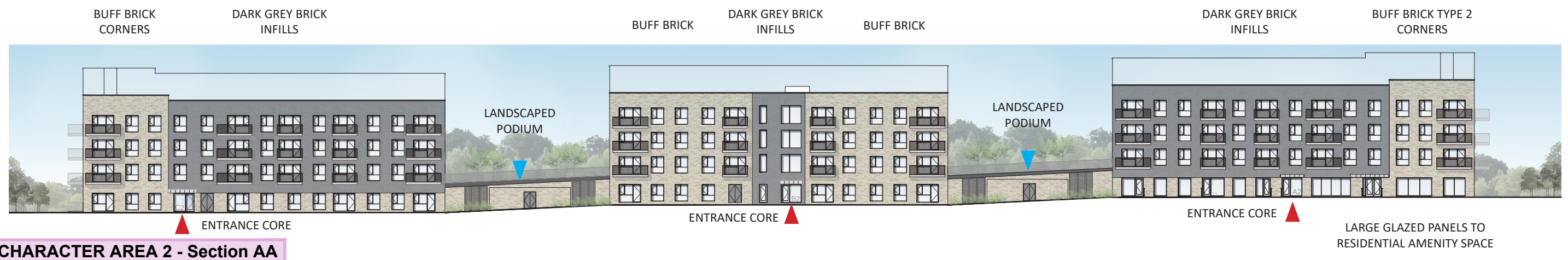


Figure 57. Character section of area no.2.

MATERIALS - HOUSES

The houses in character area 1,3 & 4 are designed with a more traditional style and materials pallet, using two well defined red bricks complemented by reconstituted stone details around doors and windows reveals. These red brick types are complimented by the selected red roof tiles that bring together the character areas in a cohesive architectural language.



CHARACTER AREA 4
BRICK TYPE



CHARACTER AREA 1 & 3
BRICK TYPE

Figure 58. Brick mix applied in housing and duplex buildings.

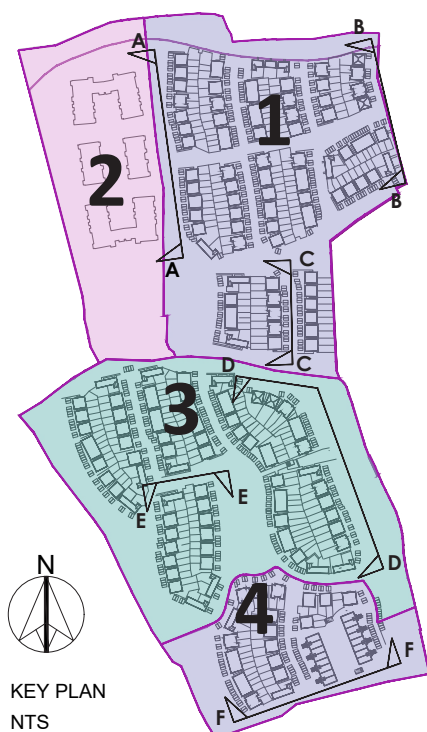


Figure 59. Brick mix applied in housing and duplex buildings.



CHARACTER AREA 1 - Section CC



CHARACTER AREA 3 - Section DD



CHARACTER AREA 4 - Section FF

Figure 60. Character elevation of housing and duplex buildings.

COMMUNITY BUILDING - DETAIL

This community building design has vertical openings perforating three sides of the main mono-pitched volume which announces the entrance to the scheme. The vertical design of the glazing ensures adequate illumination and, at the same time, a higher level of privacy from outside.

The walls are proposed in a red brick and a pale render, a durable and low maintenance material that will be well integrated to the active open space for which this building also serves.

The entrances to the building are announced by a pressed metal canopy at both the east and west of the building.

A landscaped area wraps around the building with this discussed in more detail in Kevin Fitzpatrick Landscape Architects report attached to this application

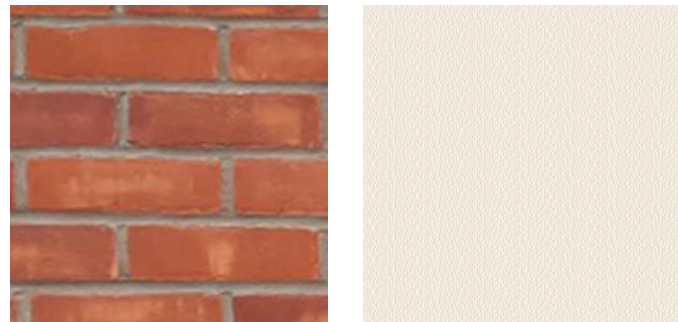


Figure 61. Red brick and pale render finishes applied to crèche and community building buildings.



Figure 62. CGI view of community building at the main entrance to the scheme from Rathdown Road.

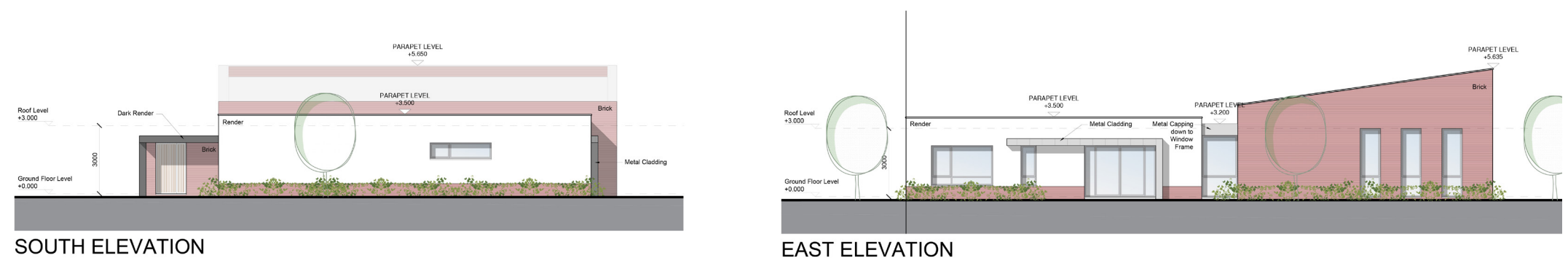


Figure 63. South and east elevations of community building showing materials and architectural form, including a contained variety of opening depending on uses and locations.

CRÈCHE - DETAIL

The crèche is located opposite the aforementioned community building at the threshold of the scheme and over looking the zoned active and open spaces to their rear.

The Crèche Building replicates the same principles applied for the community building presented in the previous section. A predominant 2-storey building, characterised by a red-brick facade and regular openings. A sequence of vertical windows punctuates the south elevation, marrying the architectural language employed on the community building. Together with the Community Building, this creates a cohesive set piece entrance which announces the scheme onto the Rathdown Road.

Appropriate signage will be provided at the pedestrian and cycling entrance of the crèche. The play areas are well defined by the landscaping and by the use of low metal railing, all detailed in more in Kevin Fitzpatrick Landscape Architects design report and drawings.

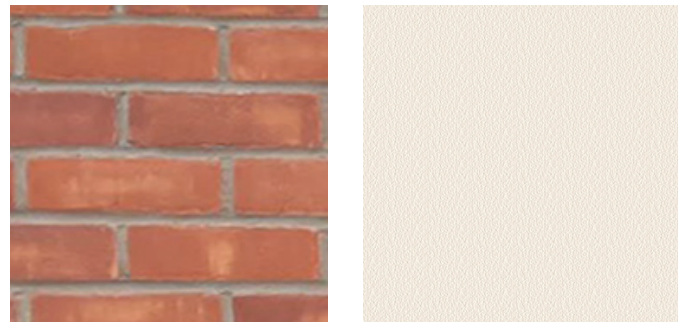


Figure 64. Red brick and pale render finishes applied to crèche and community building buildings.



Figure 66. CGI view of crèche (right) and community building(left) at the main entrance to the scheme from Rathdown Road.

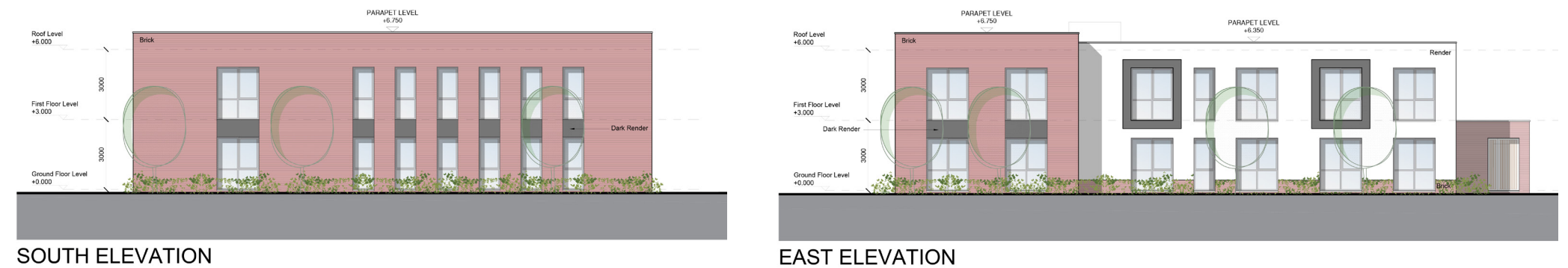


Figure 65. South and East elevations showing finishes and architectural form of crèche proposed.

Figure 12.1 Parking and landscaping proposed for houses
Comparable size development delivered by Cairn Homes

CAR AND BICYCLE PARKING

Car parking as proposed will not dominate the visual character of the street. In all cases where either on street or on curtilage parking is proposed, a strong street planting scheme has been detailed by Kevin Fitzpatrick Landscape Architects.

Basements and undercroft arrangements by their nature take the car out of the public realm for the apartment buildings. The developer will provide car charging points at the outset to the quantity required by a planning authority.

All houses will also be “charger ready”.

This is covered in more detail in the E-car charging document prepared by Waterman Moylan Consulting Engineers attached to this application

Bike parking spaces are provided in different configurations, depending on the necessity of each area. All bike parking areas in basements will be well demarcated and properly secured. Bike parking for visitors will be provided in some cases on surface where they are designed to be well integrated to the proposed landscaped areas and public realm.



Figure 66. Parking and both hard and soft landscaping proposed for houses of comparable size development delivered by Cairn Homes.



Figure 67. Sample image of vehicular e-charging points .



Figure 68. Sample of cycling lanes along an ecological corridor.

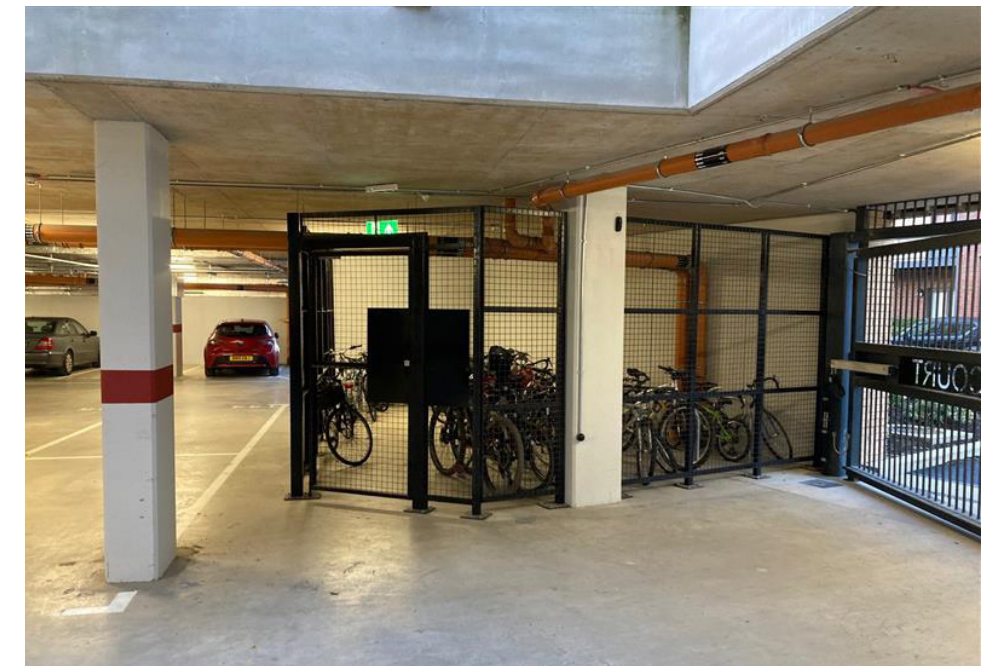


Figure 69. Sample image of secure bike parking spaces provided in basement. Comparable size development delivered by Cairn Homes.

SUSTAINABILITY

OVERALL STATEMENT

All of the units will be subject to the NZEB (Nearly Zero Energy Building) requirements of the updated Part L Regulations, from 2021 that are in effect. In terms of energy ratings all of the units on site will have a Building Energy Rating (BER) of A2 / A3.

The measure of compliance with Part L of the Regulations is demonstrated using the Dwelling Energy Assessment Procedure (DEAP) software.

RENEWABLE ENERGY

Since 2008 and the introduction of the European Performance of Building Directive it has been mandated that each dwelling unit must generate a portion of their energy demand. The proposed buildings supply the renewable energy contribution in order to meet the Energy Performance Criteria of 0.3 as compliance hinges around either the ability to generate hot water (for sanitary purposes) using a heat pump with a related COP of over 230% or providing sufficient photovoltaic capacity to lower the imported energy into the unit.

A summary of the renewable solutions to be adopted on site are:

- Solar Photovoltaic (PV)
- Combined Heat and Power
- Heat pumps

All components proposed to achieve the renewable energy requirements were considered from the early stages of the design process and incorporated within the landscaping and built fabric to minimise any negative visual impact.

U-PVC WINDOWS

PVC framing is proposed at Coolagad for its energy efficiency and low maintenance characteristics compared with aluminium windows.

When assessing the energy efficiency of a window the frame has a bigger impact on the U value than the glass, effectively it is the weakest link in the thermal performance of the overall assembly. PVC framing material performs better than aluminium, having improved insulation qualities. At the point of manufacture the embodied energy of uPVC is 80 MJ/kg whereas the equivalent aluminium figure is 170 MJ/kg, a reduction of over 50%. Although the lifespan of both aluminium and PVC is similar at circa 35 years, aluminium frames depend on their paint cover, minimum of 70 microns, for protection whereas the PVC frame material is designed to be exposed and does not require an outer protective layer, and therefore require less up-keeping



Figure 70. Sample image of similar building fabric. Comparable size development delivered by Cairn Homes.

BUILDING FABRIC

The building fabric elements that will be used in the construction of the dwellings will achieve the following performance

Walls	0.18W/m2K
Roof	0.16 W/m2K
Windows	1.4 W/m2K
Floors	0.16 W/m2K

The specified air tightness for the unit is to achieve an air tightness level of 3 air changes an hour or better. Based on previous project experience with Cairn Homes we expect that this figure will be comfortably exceeded within the house/ apartment types proposed.

GREEN ROOFS

We are providing a minimum of 60% green Sedum roof to all apartment buildings, this type of green roof requires little maintenance compared to other green roofs as they have shallow roots and only need a small amount of rain water and nutrients to survive. Upkeeping is mostly related to periodic gutters and edge cleaning but the meadow itself requires little attention.

Sedum roof systems have been shown to have benefits for a range of insects. Sedum flowers do provide foraging for pollinators, especially bees in late June, providing much needed habitats and food sources for wildlife and insects.



Figure 71. Sample image of biodiversity Comparable size development delivered by Cairn Homes.



Figure 72. Sample image of biodiversity at sedum roof. Comparable size development delivered by Cairn Homes.

5 RESPONSE TO ABP'S OPINION

This section presents the specific responses to ABP's Opinion on the Stage 2 submission of this residential development at Coolagad. Both the stage 2 (right) and Stage 3 (left) layouts can be seen below for comparative purposes. The stage 3 revised layout shows an enhanced urban layout with a more organic urban structure that embraces the site features and topography and proposes a more diverse and integrated public realm within the overall built environment, as presented in this Architectural and Urban Design Statement prepared for this Stage 3 submission.



Figure 73. Layout at Stage 2 submission.



Figure 74. Current layout prepared for this Stage 3 submission.

A Stage 2 submission, displayed in previous figure no.73, for the current application was made for 607 no. residential units (405 no. houses, 202 no. apartments) with a crèche in December 2020 (**ABP-308945-20**). Items highlighted by ABP are responded to below, in addition to the overall justification and rationale exposed in this Architectural & Urban Design Statement for the overall layout hereby presented and shown before in figure no.74. We have had due regard to these comments in finalising the designs for the scheme and corresponding documentation lodged for Stage 3.

Design and Layout issues indicated by ABP have been addressed as described:

- **The linear approach to the scheme, in particular the internal road network and the central area of public open space**, has been amended to enhance the variety of public open spaces, achieving more human-scale central pocket parks which are well integrated and connected within a network of home zones that dissuade crossing vehicular traffic and reduce speed by passive measures, such as curved alignments in compliance with DMURS.
- **The potential negative impact on residential amenities, in terms of overlooking, overshadowing or overbearing impact, due to the topography of the site and the potential requirement for retaining features.** This item has been addressed with the removal of dwellings along the eastern boundary and replacing this cell with a significant linear park, ensuring an improved relationship between proposed residential units, open spaces and adjoining existing residential dwellings. This results in accessible and enjoyable public areas within the site and diminishes any potential overlooking or overshadowing. In addition, existing valuable mature trees and hedgerows have been integrated and retained within the boundary landscaped areas of the site. These landscaped buffers are designed in detail by Kevin Fitzpatrick Landscape Architects.
- **Roads Objective RO1 of the Local Area Plan to provide a new road from the R761 to the N11, through the northern portion of the site.** The scheme has full consideration of this road objective, which crosses the site from east to west along its northern edge and delivers the two vehicular accesses into the scheme from the R761 and the N11. Please refer to AECOM Engineering drawings for further details.
- **The dominance of the road network within the scheme and consideration of the provision of homezones and a reduction in the number of cul-de-sacs.** A traffic-calming approach has been extended to the overall layout, designing a network of internal shared-surface streets and homezones that open out to pocket parks and edging landscaped corridors. Cul-de-sacs occur in limited locations and where streets are not connected to neighbouring streets due to topographical constraints, pedestrian links are provided which are actively overlooked in all cases.
- **The location of existing watercourses on the site which currently run off to a culvert with limited capacity.** Please refer to AECOM Engineers' drawings and reports in this regard. The overall site layout has been amended accordingly in consideration of same.
- **Future connectivity to adjoining lands and the impact of the proposed scheme on the development potential of adjoining landholdings.** The overall layout presented for this Stage 3 submission has full regard to adjoining landholdings, namely the School Campus and the Neighbourhood Centre located to the east. Future permeability to these locations and to existing and future neighbouring residential developments in the north and south have been incorporated into the scheme through a network of vehicle free routes that link to the boundaries to adjoining landholdings through the bounding landscaped

site buffers.

To integrate the overall road network with the existing topography and boundary features, the scheme has due regard to the following:

1. The proposed levels for the new distributor running along the northern boundary of the site follows close to existing levels to ensure that any future connections from the lands to the north of the site can be accommodated.
2. The proposed levels for Street 18, at the southern end of the site have been designed to allow this roadway to be extended in to the residentially zoned lands to the south should future development occur. Furthermore, Street 16 and Street 17, can potentially be extended to the boundary to create additional connections should they be required in the future.
3. Proposed levels along the eastern boundary, west of the existing school site, are to remain as per the existing site levels.

We respectfully consider that the aforementioned will enhance accessible permeability throughout the site and enable future connections to neighbouring landholdings and public amenities in due course.

Water Services issues noted, particularly storm water management and foul water drainage, have been fully considered by the design team. Please refer to AECOM Engineers drawings and reports.

Transportation. Please refer to AECOM transportation reports and civil drawings.

Furthermore, this Stage 3 submission has had regard on the 11 points outlined by ABP as specific information to be submitted. A summary regarding how these items have been addressed is included below, to be read in conjunction with the overall architectural urban design statement and drawings.

1. A report that addresses and provides a clear design rationale for the proposed design and character of residential units and details of the materials and finishes of the proposed development. Particular regard should be had to the requirement to provide high quality, robust and sustainable finishes and details which seek to create a distinctive character for the development, having regard to the highly visible location of the site.

RESPONSE: This report describes the urban concept and design rationale applied in this residential development. It also provides detailed information about the character-area strategy followed, based on 4 distinct zones which are discussed in section 4 of this Architectural & Urban Design Statement. This strategy will be reinforced with the retention of existing mature trees and hedgerows, integrated in the landscaped open spaces proposed.

2. Clarification as to how the net density is being calculated. Details should include what areas are to be excluded (if any) in the density calculation and a justification for any such exclusions having regard to, inter alia, the Sustainable Residential Development in Urban Areas (2009).

RESPONSE: The net density calculation, resulting in 35.88 units per hectare, is informed by the national Sustainable Guidelines for Sustainable Residential Development in Urban Areas (Cities, Towns & Villages) 2009, which states that a net density excludes "major and local distributor roads major and local distributor roads; primary schools, churches, local shopping etc.; open spaces serving a wider area; and significant landscape buffer strips. Accordingly, the distributor road and additional road works (drainage), active open space and zoned open space in the eastern site area, and the bounding ecological corridors along the eastern and western boundaries have been excluded from the net site area for the density calculation, as outlined in the table and diagram below:

SITE AREA CALCULATIONS

TOTAL SITE AREA :	260367		260367
Exclusions:			
Z.O.S	20051		20051
A.O.S	23554		23554
LINEAR P 1	20248		
LINEAR P 2	13441		
ROAD (Drainage)	11579		11579
DISTRIB. ROAD	8096		
NET SITE AREA :	163398	16.33 HA	205183

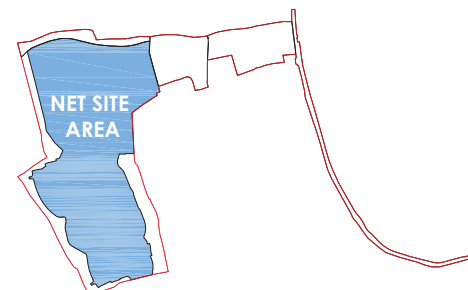


Figure 10. Table and diagram of site exclusions for net density calculation.

Further details in this regard can be found in s.2.4.1 of MBD Planning Report.

3. A report that addresses and provides a clear rationale for the provision of a single building to accommodate both the crèche and community facility. Revised documentation should include details of the long-term management of this building.

RESPONSE: Childcare facility and community building are accommodated in 2no. different buildings located north and south of the main entrance to the scheme. Please see section 4.7 of this Design Statement, along with Architect's drawing PL-700.

Please also refer to the Response to ABP's Opinion prepared by MDB Planning Consultants for details regarding management of buildings. .

4. Childcare demand analysis, including but not restricted to the justification for size and location of the proposed crèche, having regard to existing childcare ABP-308945-20 Pre-Application Consultation Opinion facilities in the vicinity of the site and the likely demand for childcare places resulting from the proposed development.



Figure 75. Site Sections.



Figure 76. Stage 3 Submission Site Layout.

RESPONSE: Please refer to MBD Planning Consultants' reports.

5. A landscape and permeability plan, with associated drawings including cross sections, clearly indicating the sites relationship with adjoining landholdings and how areas of public open space integrate with and enhance the development. Documentation should also include details of all boundary treatments.

RESPONSE: Please refer to Kevin Fitzpatrick Landscape Architects landscape design rationale and drawings, to be read in conjunction with architect's drawings and urban design statement.

6. A report that addresses and provides a justification for the proposed housing mix.

We respectfully consider that the overall layout and housing provision is adequate and timely for the current needs and aspirations for a new community at Coolagad, Greystones, including a balanced range from 1 to 5-bed homes provided in diverse typologies: 2-storey houses, apartments and duplex units, as informed in the table hereafter:

Dwelling typology	Totals	1-bed	2-bed	3-bed	4-bed	5-bed
Houses	351 units	-	-	207	140	4
Duplexes	32 units	-	16	16	-	
Apartments	203 units	65	123	18		
Overall totals	586 units	65	139	238	140	4
		11%	23%	41%	24%	1%

Please refer to MDB Response of An Bord Pleanála's Opinion for further information

7. A building life cycle report in accordance with section 6.13 of the Sustainable Urban Housing: Design Standards for New Apartments (2020).

RESPONSE: Please refer to Cairn Homes Properties Ltd. Building Life Cycle report, to be read in conjunction with architect's drawings and urban design statement.

8. A site layout plan indicating what areas, if any, are to be taken in charge by the planning authority, and the phased delivery of such public open spaces.

RESPONSE: Please refer to architect's drawing no. PL.08.

9. A phasing plan for the proposed development which includes the phasing arrangements for the delivery of the public open spaces, community uses and Part V provision and demonstrates the requirement for a 7-year permission.

RESPONSE: Please refer to architect's drawing no. PL 10 .

10. School Demand and Concentration Report, which identifies demand for school places likely to be generated by the proposal and the capacity of existing schools in the vicinity to cater for such demand.

RESPONSE: Please refer to MBD Planning Consultants' reports.

11. Where the applicant considers that the proposed strategic housing development would materially contravene the relevant development plan or local area plan, other than in relation to the zoning of the land, a statement indicating the plan objective (s) concerned and why permission should, nonetheless, be granted for the proposed development, having regard to ABP-308945-20 Pre-Application Consultation Opinion consideration specified in section 37(2)(b) of the Planning and Development Act 2000. Notices published pursuant to Section 8(1)(a) of the Act of 2016 and Article 292 (1) of the Regulations of 2017, shall refer to any such statement in the prescribed format. The notice and statement should clearly indicate which Planning Authority statutory plan it is proposed to materially contravene.

RESPONSE: Please refer to MBD Planning Consultants' Statement of Consistency and Material Contravention Statement.

6 CONCLUSION

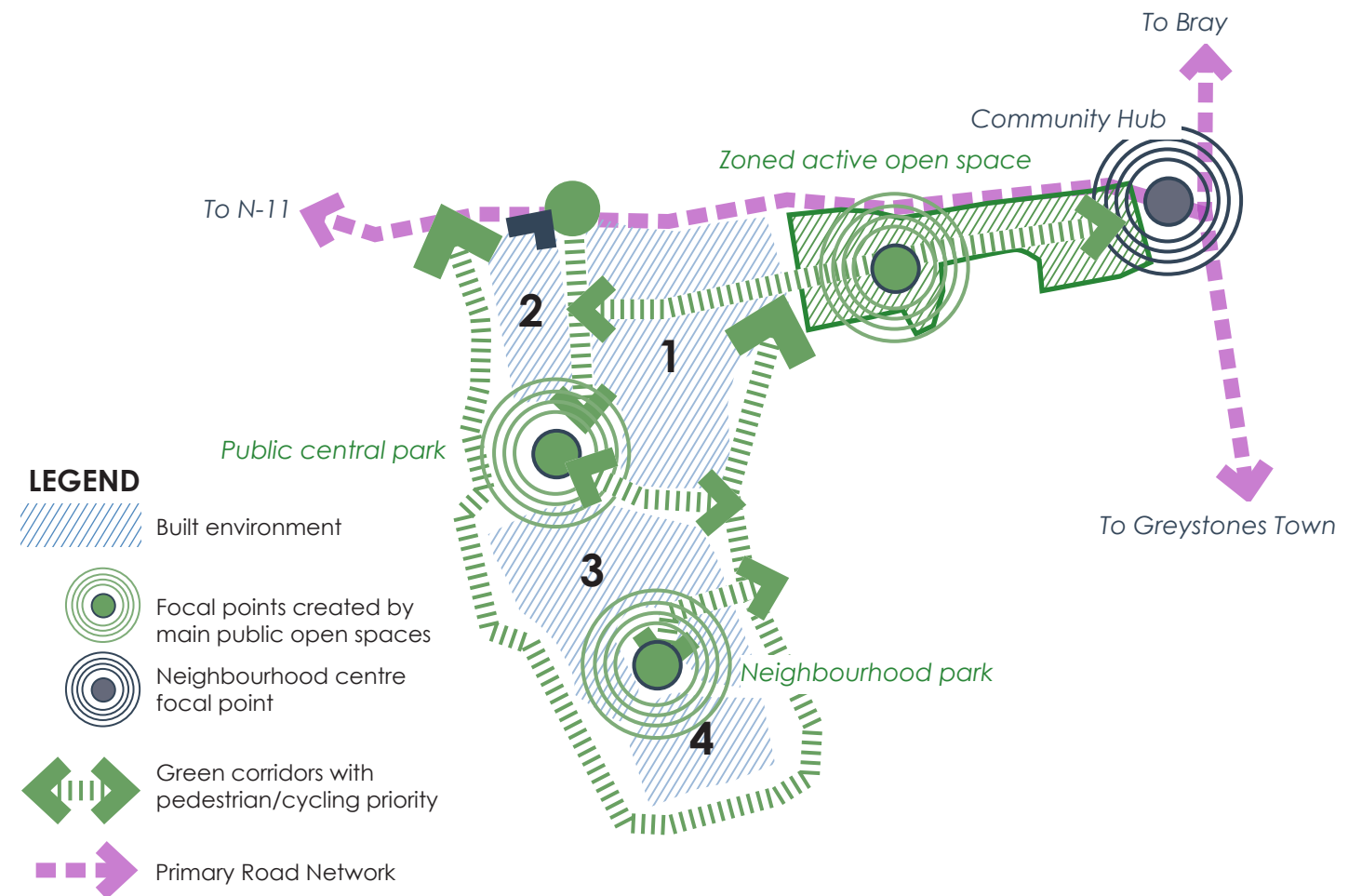


Figure 77. Conceptual diagram of distinctiveness and focal points.



We respectfully state that the scheme presented will positively respond to its context and carefully integrate within the existing site topography and natural features. We have taken this as an opportunity to preserve the continuity of hedgerows, tree lines and watercourses within a development of unique character and views to its sylvan and coastal setting, along with providing a number of future potential pedestrian and cycling links to proximate educational and retail amenities and also connecting with Greystones Town Centre. The new built environment proposed in this Stage 3 submission will result in an inclusive and diverse neighbourhood and will present an overall aesthetic architectural style of high quality and durability with a strong sense of place whilst delivering a variety of liveable streetscapes and high quality usable landscaped open spaces.