



BELMOUNT, NAVAN

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Residential Development at
Belmont, Co. Meath for Coindale LTD
Architect & Urban Designers' Report
An Bord Pleanála, November 2019

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1.0 INTRODUCTION & SITE DESCRIPTION



1.1 Introduction

This is a SHD planning application for dwellings on land at Academy Street, Navan, Co. Meath. The land is in effect infill, being surrounded by development on all sides. It rises from an urban context on Academy Street to a more intimate suburban context on higher ground behind fine banks of trees. The Boyne lies to the east.

The proposed development provides access to a primary school site and includes two crèches. It is organised around a loop route with three access points onto Academy Street, together with pedestrian and cycle links to surrounding housing neighbourhoods, Beaufort College and towards Railway Street.

1.2 Site Description

The application site consists of c.15.10Ha. It is oblong in shape with a longer north/south axis. The eastern part of the site fronts Academy Street, the western and southern boundaries are mainly edged by the rear gardens of existing houses in Limekiln Wood and Limekiln Hall. A reservation for a school site forms the northern boundary, while it in turn is edged with houses in the adjacent Woodview and Woodlands estates. These lands originally belonged to Belmont House, which remains on a sizeable, independently accessed, site in the centre of the undeveloped area.

Academy Street is urban and was the original way into Navan from Dublin, leading directly into Market Square. Recent developments rise from four to six floors. This is the site's urban context and reference to the town.

The application site has a development area along Academy Street, and behind and parallel to this is an embankment, mainly planted with mature trees, and beyond that the majority of the site is flat tillage land surrounded by existing houses. This progression of urban edge, wooded bank, and plateau behind, informs the design response.

There are views from the site of roofscape and church spires in the town, the fine railway viaduct over the

Boyne and Athlumney Castle. Views within include some fine woodland edges.

1.3 Site appraisal and SWOT analysis.

Please read this document with CSR Landscape Architects site appraisal and SWOT analysis as part of their detailed Landscape Report.

2.0 PLANNING CONTEXT

2.1 National and County Development Requirements.

John Spain Associates Planning Report outlines the requirements of Meath Development Plan and Navan Town Plan in relation to the development of this site together with the impact of the various relevant Section 28 Guidelines.

3.0 DESIGN DEVELOPMENT

3.1 Masterplan

The masterplan followed through from site analysis and the brief requirements. The following issues were drivers:

- The site is on two levels, a lower urban part edging Academy Street close to Navan, and an upper, and also inner, site behind a wooded embankment containing a protected structure and curtilage.
- Meath Development Plan had identified and located an access road to Academy Street and had already acquired the land for this road.
- A new schools campus was to be provided on the upper level, accessed by this road.
- A second southern access to the upper area involved a detailed assessment by the landscape consultant and arborist to agree the ideal route.
- The historic grounds and landscape of Belmont demesne, contained by the site, provide key sense of place and identity.
- There are views from the upper site to landmarks in Navan, church spires, the castle and the railway viaduct.
- There are some mature trees in the field boundaries of the upper level that could be used to give local focal points and a sense of permanence.
- The outer perimeter of the site is largely edged with existing two storey housing backing on.
- The zoning of lands for open space along Academy Street means an urban edge directly onto the street cannot be provided.
- The site is close enough to Navan town to avail of and support its facilities. The most direct route is via Academy Street.
- There are a limited number of potential connection points to the boundaries surrounding established housing areas where future provision to link can be made, subject to the wish of neighbouring communities to do so.



Above: Initial Site Layout: Edges



Above: Initial Site Layout: Green Space



Above: Initial Site Layout



3.2 Meath County Council S.247 Meeting

The masterplan was further developed and the detail behind the layout expanded.

The apartments on Academy Street were moved back within the residential zoning in order to comply with the development plan. Sites off the R147 along the Boyne, which were inaccessible from the upper lands, were left out of the site pending future access arrangements.

Unit numbers, typologies and mix were confirmed and a full suite of architects, landscape, and engineering design documents were submitted.

Minutes of the meeting were circulated afterwards

- Development to have regard to Navan 2030 plan and assessment of social infrastructure. Justification for Phase 2 lands.
- Part V submission: Detailed unit plans and locations to be agreed
- Water Services: PWSA (Project Works Services Agreement) a key requirement. Confirmation from Irish Water for unit numbers applied for SuDS compliant design.
- Transportation: Traffic and Transport impact report, including school; assess junction capacities; Road Safety Audit; DMURS to apply; show pedestrian and cycle permeability and links; gradients at 5%; parking to CDP standards or national standards for peripheral areas; trees not to damage footpaths; delineation of Homezones; public lighting; taking in charge.
- Environment: Flood risk assessment: C Frams and site entrances; emergency access points. Quantify material to be removed from site. Construction Environmental Management Plan, Waste Management Plan, Climate Action Strategy. Navan has a 3 bin system – note re terraced houses.

- Planning: EIA, NIS possibly too. Protected structure – discuss with MCC conservation officer. Phasing plan required. Density at c.40/Ha seems reasonable. Quantum of open space meets development plan standards. Queried boundary treatment to housing units, feature balconies for apartments.

3.3 An Bord Pleanála SHD Pre-Application Proposal and Opinion

3.3.1 Housing Mix and Density

Design development continued following discussions with Meath County Council to form the basis of the pre-application submission to An Bord Pleanála. No fundamental redesign issues had arisen in MCC response to the scheme.

487 dwelling units were proposed. The following mix of housing typologies and sizes were included:

- Houses then comprised 65% of the dwellings.
- Apartments the remaining 35%.

These then comprised:



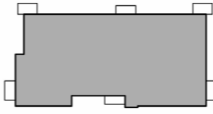










- One bedroom dwelling 34 7%
- Two bedroom dwelling 164 33.5%
- Three bedroom dwelling 246 50.5%
- Four bedroom dwelling 43 9%

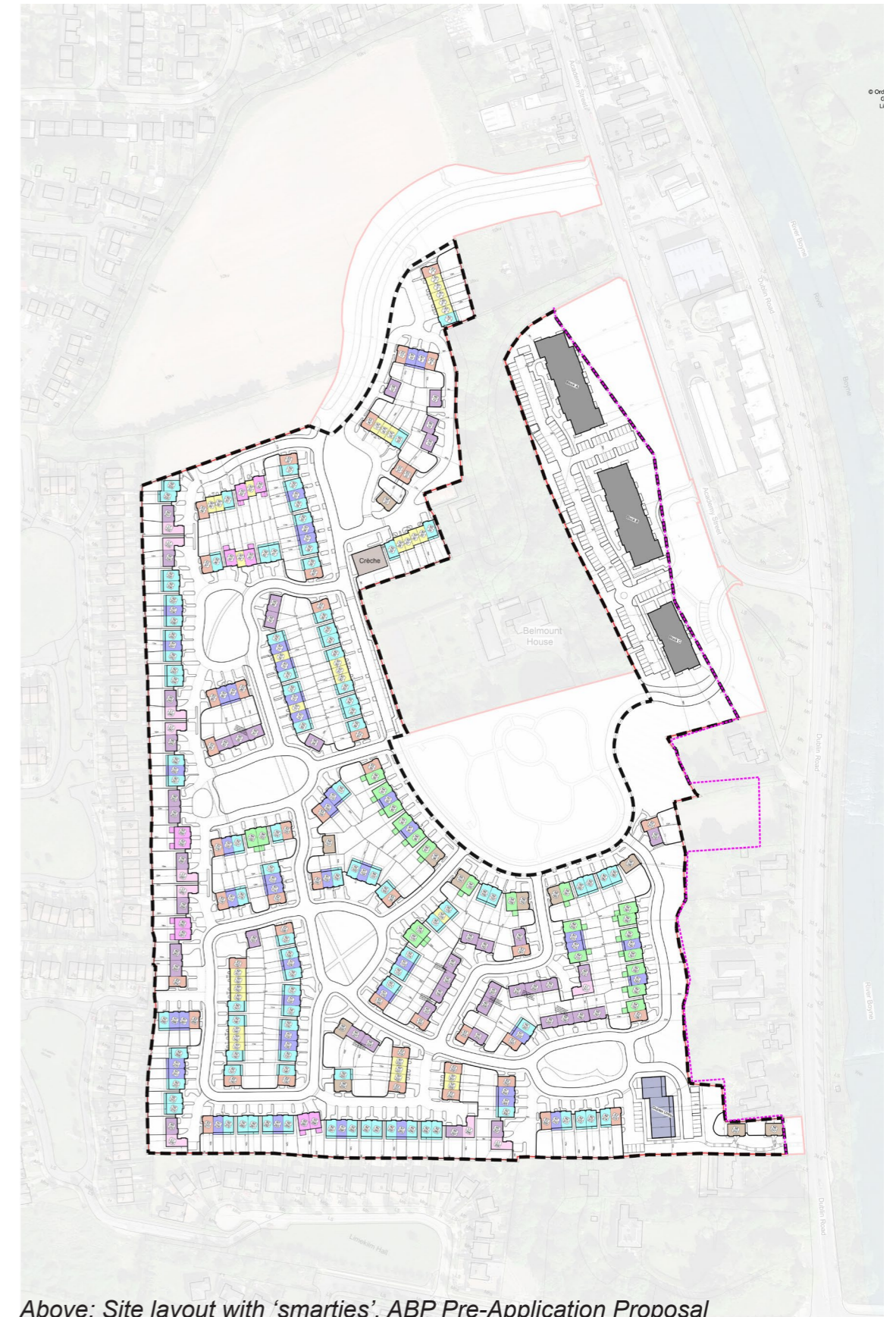
The gross application area was 14.9Ha*. This included all of the residentially zoned land, the parks and the through access road. The Nett site area excluding land not zoned residential, principal open space, and the loop road as far as the school was 12.1Ha.

This gave rise to a Nett density of 40.2/Ha.

The upper level neighbourhood behind and encircling Belmont House was proposed as a series of linked character areas, all of which comprised two storey housing, the exception being a duplex block absorbing a level change in the south east corner.

*In the current proposal the red line area has been increased to include the junction onto Dublin Road. This gives a gross application area of 15.10Ha.

Duplex Units:			
Garden Apartments		2 bedroom	- 6
Duplex Apartments		3 bedroom	- 6
Total Duplex Apartments			- 12
Apartment Blocks:			
			
1 bed apartments			- 34
2 bed apartments			- 124
Total Apartments			- 158
TOTAL			- 170
House Type E2		3 bedroom	- 44
House Type N1		3 bedroom	- 46
House Type N2		3 bedroom	- 95
House Type N3		3 bedroom	- 10
House Type N4		4 bedroom	- 22
House Type N5		3 bedroom	- 45
House Type N7		2 bedroom	- 34
House Type N8		4 bedroom	- 11
House Type L1		4 bedroom	- 10
TOTAL HOUSES			- 317
TOTAL RESIDENTIAL UNITS			- 487
Site Area 12.12Ha			40/ha
<hr/>			
Total 1 bed units	- 34	- 7%	
Total 2 bed units	- 164	- 33.5%	
Total 3 bed units	- 246	- 50.5%	
Total 4 bed units	- 43	- 9%	
Total Units	- 487	- 100%	



Above: Site layout with 'smarties', ABP Pre-Application Proposal

3.3.2 An Bord Pleanála SHD Pre-Application Meeting and Opinion

The tripartite consultation was held and a number of issues for consideration were listed by An Bord Pleanála in their Pre-Application Consultation Opinion.

1. Residential Phasing.

Consideration of the phasing requirements of the Navan Town Development Plan. Justification for release of Phase 2 lands.

2. Infrastructural Constraints.

Identify any wastewater and water supply network constraints and if subject to statutory consents, and timing relating to same.

3. Density.

Further consideration of density in relation to Section 28 Guidelines with particular reference to calculation of Nett density and the need to develop at sufficiently high density.

4. Design, Layout and Unit Mix.

Further consideration in relation to unit mix, building height, typology and layout particularly in relation to the 12 criteria set out in The Urban Design Manual, the *'Urban Development and Building Heights Guidelines'* and the *'Design Manual for Urban Roads and Streets'*, addressing unit mix, the configuration of the layout and the architectural approach.

5. Built Heritage

Matters relating to Architectural Heritage Protection – Guidelines for Planning Authorities.

6. Archaeology

Further consideration as related to the protection of archaeology.

7. Traffic

Further consideration as related to trip generation; impact on junctions; internal street layout and gradient; car parking and street hierarchy.

8. Flooding.

Further consideration as related to the *'Planning system and Flood Risk Management Guidelines for Planning Authorities'*, issued by DEHLG and OPW.

9. Storm Water Management (SuDS)

Further consideration relating to storm water management, capacity of

the stormwater network, and the provision additional SuDS measures on site.

10 Other matters

10.1 Level differences: Cut and fill, earthworks, gradients, and retaining features.

10.2 Design, details and sections of SuDS features.

10.3 Materials specification: buildings, open spaces, paved areas, boundary, and retaining walls.

10.4 Details of public lighting.

10.5 Details of Part V provision indicating locations.

10.6 Delineation of public, semi-private and private spaces.

10.7 Detailed Phasing Plan.

10.8 Taking in Charge plan.

10.9 Identification and justification of any material contravention of the development plan or local area plan.

These issues are dealt with in the various consultant reports as outlined in John Spain Associates (JSA) planning response.

In addition to JSA commentary, this Design Report will respond to:

3. Density

4. Design, Layout and Unit Mix.

10.3. Materials specifications for buildings

10.5 Part V

10.7 Phasing Planning

10.8 Taking in charge.

3.3.3 Query 3: Density.

Further consideration of documents as they relate to the density in the proposed development, specifically in relation to the 'Guidelines for Planning Authorities on Sustainable residential Development in Urban Areas' (May 2009). Particular regard should be had to the guidance on calculating net and gross site areas and the need to develop at a sufficiently high density to provide an acceptable efficiency in serviceable land usage given the proximity of the site to the Navan town centre and to public transport connections and to established social and community services in the immediate vicinity. The further consideration of this issue may require an amendment to the documents and/or design proposals submitted relating to density and the layout of the proposed development.

Response to this and other concerns raised has led to changes in the layout, unit mix, and density.

The maximum density for this particular site is stated to be 45/Ha as set out at Site K of Table 2A2 of Navan Development Plan.

The methodology for calculating density is set out in Section 28 Guidelines 'Sustainable Residential Development in Urban Areas' at Appendix A: Measuring residential density.

Nett density is deemed to include:

- Access roads within the site;
- Private garden space;
- Car parking areas;
- Incidental open space and landscaping; and
- Children's play areas where these are provided.

And therefore is deemed to exclude:

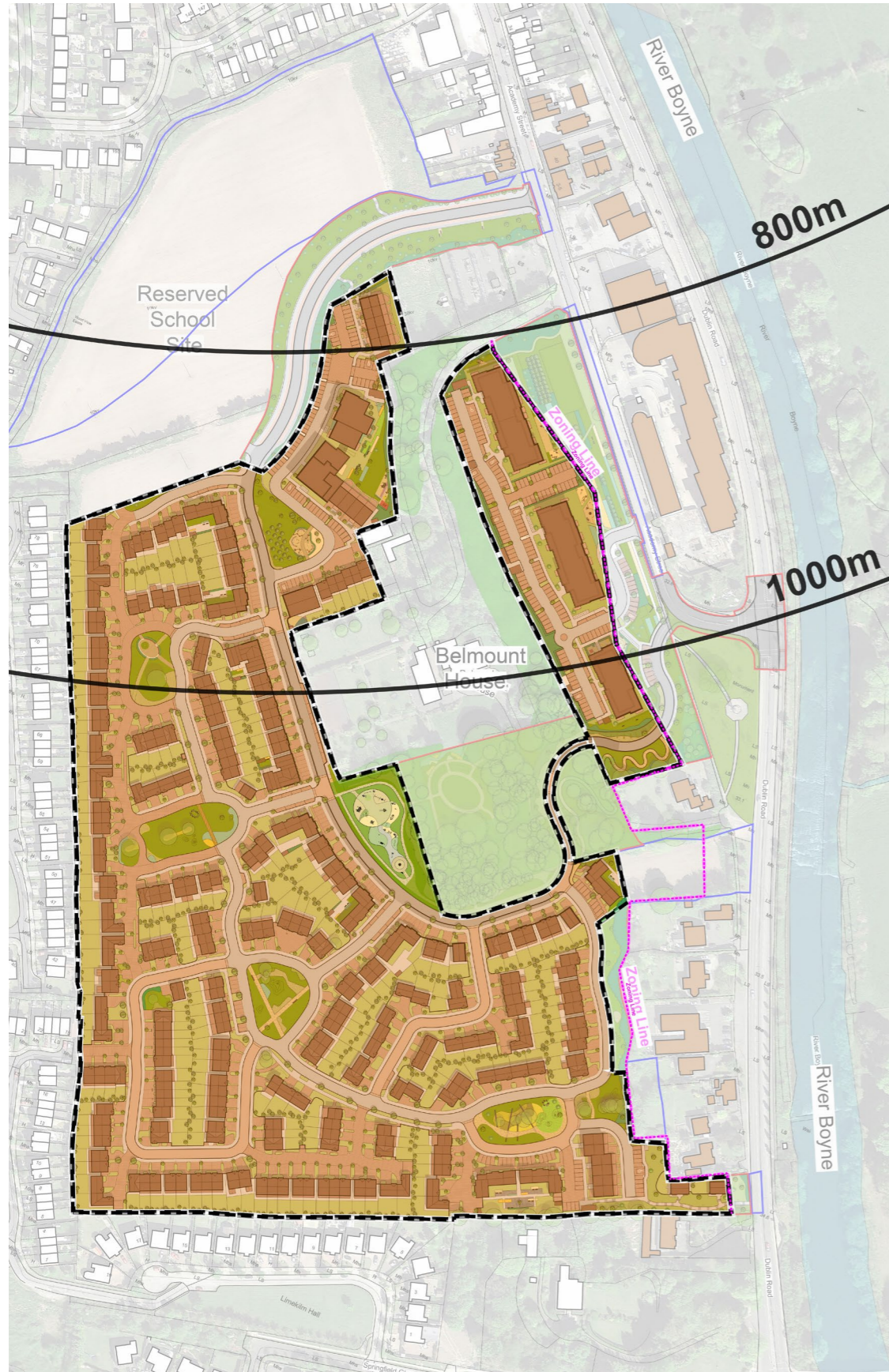
- Major and local distributor roads
- Primary schools, churches, local shopping etc.;
- Open spaces serving a wider area; and
- Significant landscape buffer strips.

The Nett density of the site is deemed to exclude the following

1. The northern leg of the loop/link street serving the school. There is no frontage access on this section and it is on land acquired by Meath County Council to construct a road.
2. The public open space along Academy Street and which is zoned open space and unavailable for residential development.
3. The public open space in the centre of the site which will both serve the wider area as a woodland amenity and which comprises a significant landscape buffer in the form of the woods on the escarpment and the woodland garden associated with Belmont Demesne. The area outside of the woods and including the playground is counted within the Nett developable area.
4. A significant landscape buffer strip located along the top of the escarpment at the back of properties on the R147. This area has a steep slope and is not part of the open space calculation (See Section on page Opposite).
5. This part of the public road at academy street and R147 where amendments to the existing arrangement is proposed.
6. Zoned open space and unavailable for residential development.



Right :Site layout highlighting the areas excluded from density calculations listed above as points 1. to 6.



Using the methodology for calculating density outlined in the page opposite (in accordance with Section 28 Guidelines 'Sustainable Residential Development in Urban Areas' at Appendix A) leaves a Nett Site area of 12.23 Ha.

This Nett area is shown in the site layout opposite, shaded orange, and gives a Nett density of 44.5 units per hectare:

- Gross site area 15.10Ha
- Nett site area 12.23 Ha
- Nett Density 44.5/Ha

This is below the maximum density of 45/Ha as set out at Site K of Table 2A2 of Navan Development Plan.

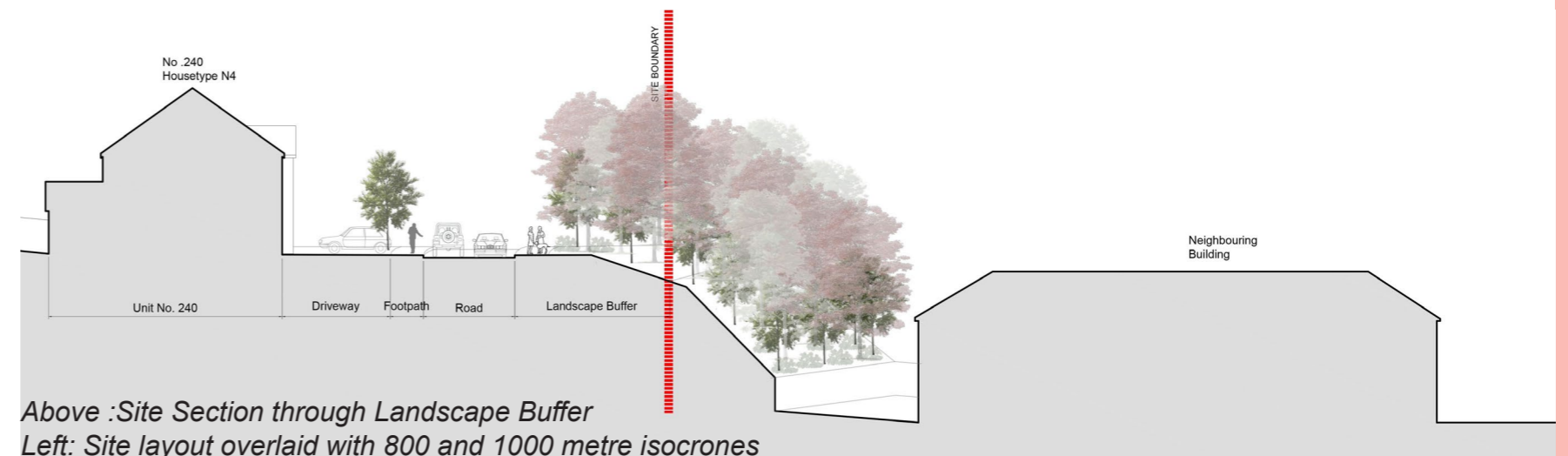
The densest parts of the layout are located within the 1000m distance from Market Square. This includes:

Academy Street with apartment blocks forming an urban town edge to the street; one of the main routes into Navan.

School Hill, as the nearest part of the upper site to the town it is consequently denser with a mix of apartments, duplex and houses. Higher buildings with living rooms on all levels improves passive surveillance

There is an appropriate variation in density within the site; graduating from high density on Academy Street, medium density along the inner loop route, and the lowest density bordering the existing two storey housing along the periphery.

Although density steps down towards the south of the site, Duplex buildings located along Belmont Avenue mark the entrances into the park necklace character areas behind as landmark buildings.



Above :Site Section through Landscape Buffer
Left: Site layout overlaid with 800 and 1000 metre isochrones

3.3.4 Query 4: Design, Layout and Unit Mix.

Further consideration of documents as they relate to unit mix, building height, typology and layout of the proposed development particularly in relation to the 12 criteria set out in the Urban Design Manual which accompanies the 'Guidelines for Planning Authorities on Sustainable residential Development in Urban Areas' (May 2009), the 'Urban Development and Building Heights Guidelines' and the 'Design Manual for Urban Roads and Streets.' In addition to density which is addressed above, the matters of unit mix, the configuration of the layout and the architectural approach should be given further consideration. Further consideration of these issues may require an amendment to the documents and/or design proposals submitted.

Response to this and other concerns raised has led to changes in the layout, unit mix, and density.

Layout

The layout and urban design approach are further elaborated upon in Section 4 under the 12 Urban Design Criteria, including distinct character areas, sense of place and variety. It is important that there is both diversity and cohesion: there are two essentially distinct quarters; Academy Street below, and Belmont above, with the woods and escarpment in between. The development at Academy Street is an edge, part of an urban gateway sequence into Navan and is scaled and detailed accordingly. Belmont above is the area within and its special identity lies most strongly in the sequence of spaces and events in arriving up and through the trees into another place. As a quarter, it has a number of themed character areas, identifiable by existing stands of trees defining focal parks and by varying relationships with the central wooded area, and with neighbouring cells.

The layout has a very clear hierarchy, from Academy Street, to the internal link street Belmont Avenue, to the individual roads accessing focal pocket parks, in turn linked with a tree lined inner avenue picking

up pedestrian and cycle desire lines, and finally in the depths of each cell, homezones and quiet mews streets.

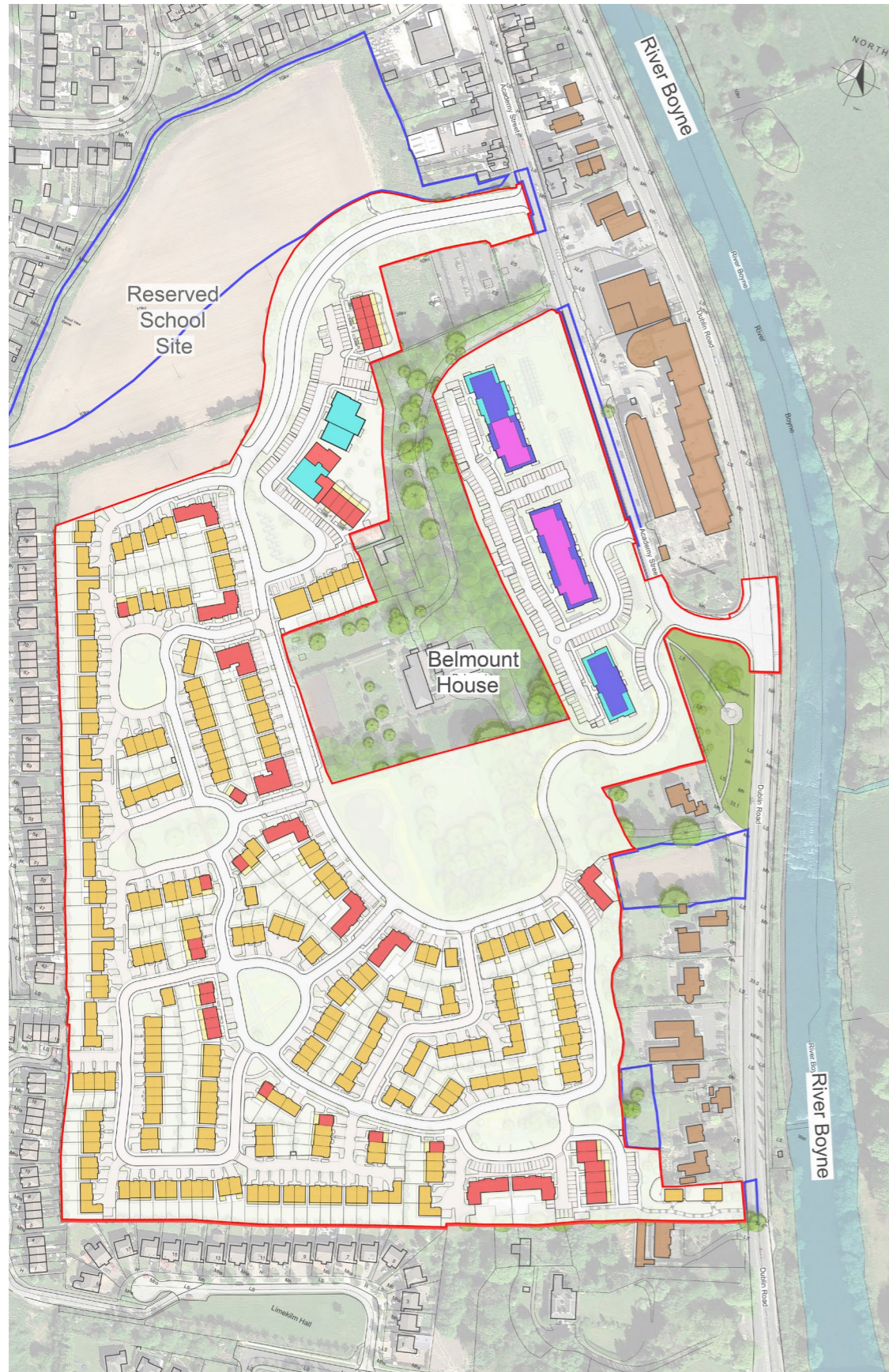
It can be seen that the route hierarchy is reinforced by building heights and edges, that the open space hierarchy descends in parallel with the route hierarchy. The layout captures existing features, whether the woodland park, mature trees in pocket parks, or views from Belmont Avenue to Navan landmarks, all to reinforce sense of place and provide legibility.

It is important that consistency in design approach ensures cohesion for the place as a whole. It is the signatures of place – edges, routes, nodes, sequences, that endure in defining character and sense of place. With this structure established, modest changes in materials have a seamlessness, and subtly reinforce the message.

The road section and finishes change as the housing areas become more intimate. Road surfaces change from blacktop on the link streets and local entrances, minor streets have paved thresholds as the finish changes to coloured tarmac, homezones in turn change to a paved finish. This provides enhanced legibility, and guides driver behaviour. Each character area will also have subtle variations in brick, but all within a complimentary palette. The slated roofs will remain a constant unifying finish.

Right :Proposed Site layout





Height Guidelines, typologies and unit mix.

It is noted in SPPR4 of the *Urban Development and Building Height Guidelines* document that planning policy requires, in the development of greenfield or edge of city/town locations for housing purposes, that the planning authorities must secure :

1. Minimum densities for such locations set out in Section 28 Guidelines,
2. A greater mix of building heights and typologies,
3. Avoidance of mono-type building typologies (e.g. two storey or own-door houses only), particularly, but not exclusively so in any one development of 100 units or more.

This site is greenfield infill and currently in agricultural use. The density range for greenfield sites in Section 28 'Sustainable residential Development in Urban Areas' guidelines is 35-50 dwellings per hectare. Meath County Council determined a maximum of 45 dwellings per hectare for this site. This proposal is for 44.5 dwellings per hectare.

While the scheme as a whole was originally proposed with a ratio of 65% houses and 35% apartments, when the upper part of the site was examined on its own, it was considered to not meet the spirit of the Height Guidelines as it was almost entirely two storey housing.

As a result, the design and mix of typologies has been changed. Now only 48% of the dwellings are proposed as own door houses, with the balance apartments and duplex. This has resulted in greater intensification and variety in the upper part of the site.

There is a wide mix of housing typologies and sizes proposed. Of the 544 now proposed, 55% are in buildings of three storeys or more.

- 260 Houses comprise 48% of the dwellings.
- 86 Duplex / Corner buildings comprise 16%
- 198 Apartments comprise the remaining 36%.

This enhanced mix now comprises the following:

• One bedroom dwelling	62	11.4%
• Two bedroom dwelling	209	38.4%
• Three bedroom dwelling	223	41%
• Four bedroom dwelling	50	9.2%

This change provides a greater mix of accommodation in a more compact urban form.

The resulting increase in heights have been used to reinforce the hierarchy of the scheme, better defining Belmont Avenue, and locating more units within the 800m to 1000m band from Market Square in Navan.



Left :Site layout overlaid with building Heights.
Key above

4 Storey +
181 units : 33%

3 Storey
118 units : 22%

2 Storey
245 units : 45%

55% exceed two storey in Height

4.0 PROPOSED DEVELOPMENT

4.1 Layout Description

The scheme consists of 544 dwellings comprising 260 houses and 284 apartments. The apartments are mostly located in the urban part of the site fronting Academy Street. The application site area is 15.10Ha. The Nett site area excluding the access road to the school and the principal open space is 12.23Ha which gives rise to a density of 44.5/Ha

4.1.1 Vision

A connected and sustainable residential development with its own character and sense of place forming an integrated part of Navan. A development which respects and enhances its setting making the most of its natural amenity, particularly the wooded feel and views out.



Navan Town Centre

Railway Bridge over the Boyne

Athlumney Castle

Reserved School Site

Renewal Sculpture

Meath County Council Offices

Left :Proposed development in context
Right: Proposed Site Layout

Apartments to Academy Street provide a strong urban edge to the scheme

Belmont Avenue North and the schools. Scale steps down, yet is still a town context.

Belmont Avenue Central Link street off of which the individual neighbourhoods may be accessed

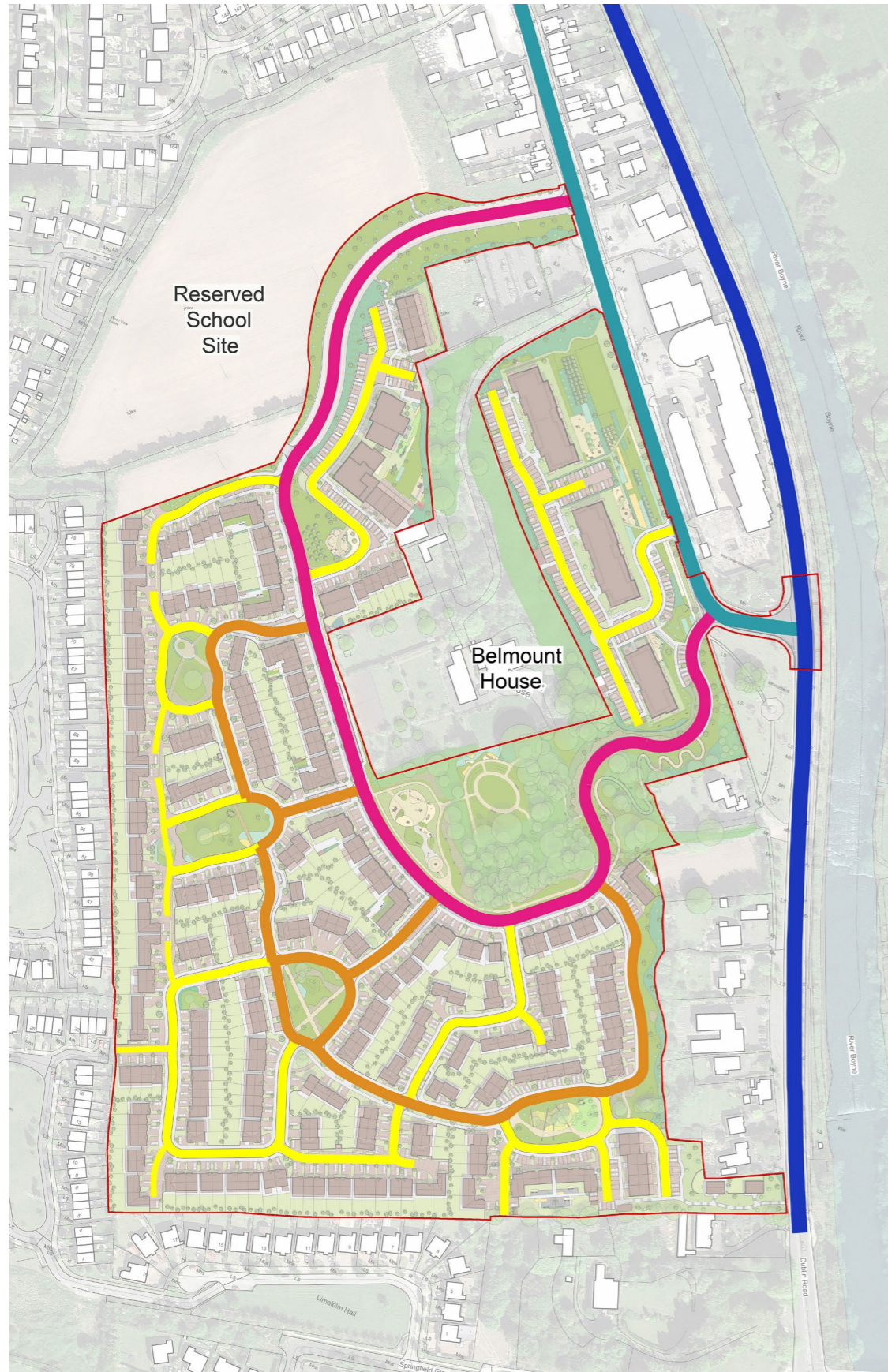
The wooded access route

The Central Belmont Park orientates the scheme.

The necklace of parks behind Belmont Avenue. Each is marked by its own individual park at the centre

The quiet homezones at the periphery of the necklace of parks.





4.1.2 Hierarchy & DMURS

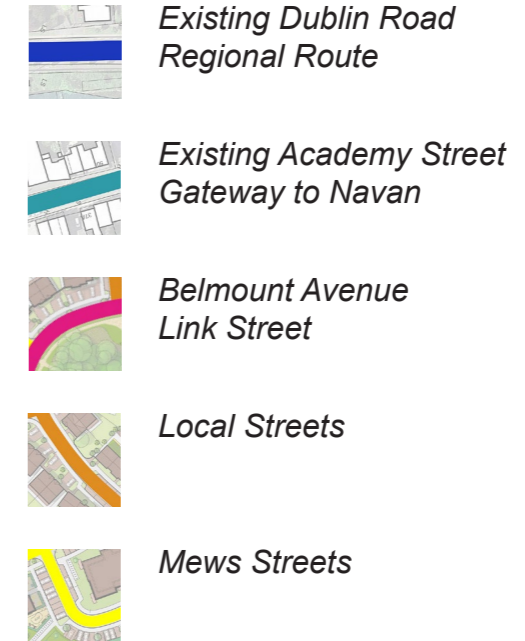
The scheme consists of an urban edge to Academy Street fronting a linear park, and a loop route from Academy Street through to the lands beyond. The hierarchy of the plan is clear:

- A linear 4/5 storey edge to Academy Street, with set back penthouse over, forms the urban town edge to the street which has a district function.
- A loop route from Academy Street forms a memorable wooded route containing the main park, accessing the school, and edged by housing framing local access points into individual character areas.
- Each character area is defined by an open space, usually curating existing trees, and these spaces form a necklace along a quieter tree lined street.
- The inner most part of each character area consists of shared surface homezones. These traffic calmed pedestrian friendly places in turn interlink to form an outer pedestrian / cycle only loop around the site See Diagram on the right

This hierarchy decreases like a pond ripple from the bustle of Academy Street, onto the neighbourhood wooded loop, the quiet park necklace street, and finally the interconnected homezones.

Left :Site layout overlaid with principal roads, streets, and homezones demonstrating the radial, ripple like, hierarchy.

Right: Interconnectivity in the mews streets with traffic calmed pedestrian friendly places



4.1.3 Urban Design Context

Legibility

At the scale of district, the scheme has a strong presence on Academy Street, one of the main routes into Navan. At the scale of neighbourhood the scheme has a strong sense of place, a woodland setting behind an urban edge, a clear street hierarchy, and a layout that maximises existing natural assets and views.

Edges, paths and landmarks

Strong edges reflect the route hierarchy and legibility of the scheme:

- The urban edge to Academy Street,
- The mainly three storey edge to tree lined Belmont Avenue
- The pocket parks forming local focal points and internal linked in a green necklace,
- The quiet interconnected mews streets and homezones.

Buildings on corners and the individual location specific designs of local parks form local landmarks and aid wayfinding. Belmont Avenue in its northern aspect frames views of landmarks within Navan.

Connectivity

While vehicular access is provided from the three access points onto Academy Street, facility is made for pedestrian and cycle connections to the surrounding lands.

- Connection to the Dublin Road bus stop to the south east.
- Potential future connection to Knock Boyne lands

to the south

- Potential connection to Limekiln Wood at the south west
- Potential connection to Limekiln Wood and beyond to Beaufort College and Railway Street.

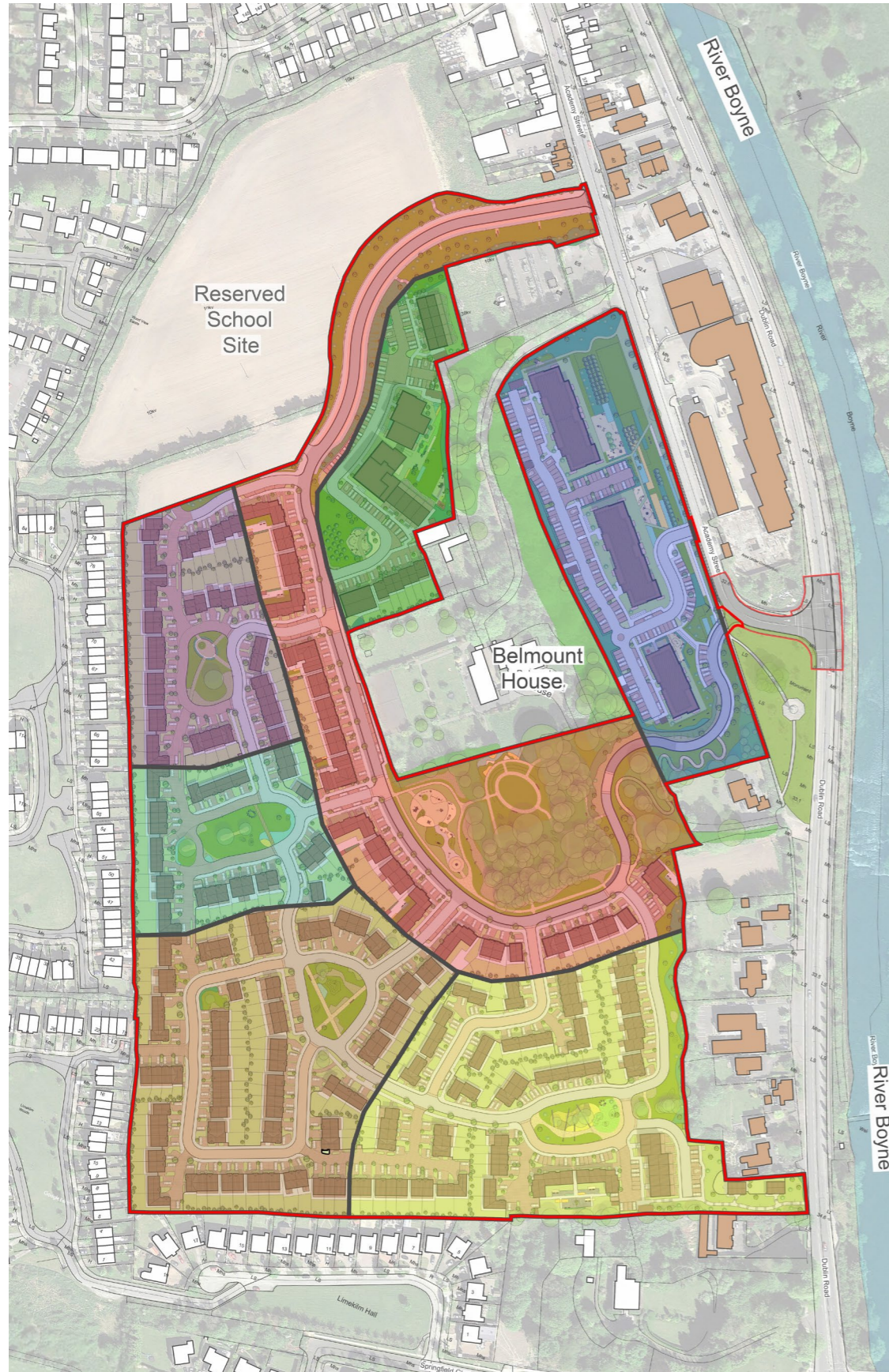
Internal pedestrian interconnectivity reflects desire lines west and north to the school and can follow the necklace of parks (or homezones) avoiding the vehicular access points off Belmont Avenue.

Right: Site layout Overlaid with key building edges



Denotes a 'Strong edge' building





4.1.4 Character Areas

The development divides into a number of character areas according to location and function: This is explored in greater detail later at 6: Distinctiveness in the Urban Design Criteria compliance section.

- Academy Street edge is urban in character and part of the Navan street network.
- Belmont Avenue North and School Hill. This is the town context.
- Belmont Avenue South and the woodland park. The wooded access route and central Belmont Park and Avenue character area orientate the scheme.
- The necklace of parks and character areas:

Behind and radiating off Belmont Avenue there is a set of distinct but related character areas, one east of the avenue, and four to the west. Each is marked by its own individual park at the centre, and with peripheral quiet homezones.

The character areas are connected to each other in a descending hierarchy of streets: Firstly along Belmont Avenue, secondly along an internal secondary tree lined avenue connecting from pocket park to pocket park forming a more local connection between adjoining housing cells; and finally homezones along the southern and western periphery all interconnect with pedestrian/cycle only links.

Each has a direct link from Belmont Avenue to the pocket park which forms the identity of the local enclave and orientates movement. Each pocket park is distinct in its shape, enclosure and planting theme. The character area becomes more intimate as they get further away from the entrances. Finishes subtly change between character areas, but maintain continuity to achieve a coherent neighbourhood.

Left :Site layout overlaid with colours denoting the 7 distinct areas. Legend below

-  Academy Park
-  School Hill
-  Belmont Avenue South
-  South Park and Boyne Link
-  High Park and Limekiln Hill Link
-  The Ashes
-  Oval Park

4.2 Compliance with the 12 URBAN DESIGN CRITERIA

1. Context:

How does the development respond to its surroundings?

The scheme sits naturally into its surroundings taking its cue from the various site conditions.

Academy Street is the historic southern approach to Navan leading directly into Market Square some 750m from the northern entrance to the site. This is the site's urban context and reference point to the town.

A new urban edge of apartments now provide the missing edge to Academy Street and echo the scale of recent developments opposite. The building line is set behind a linear town park as the urban section of Academy Street transitions from the open route along the Boyne to the urban section of the town which starts in earnest at the railway bridge – the gate to the old town.

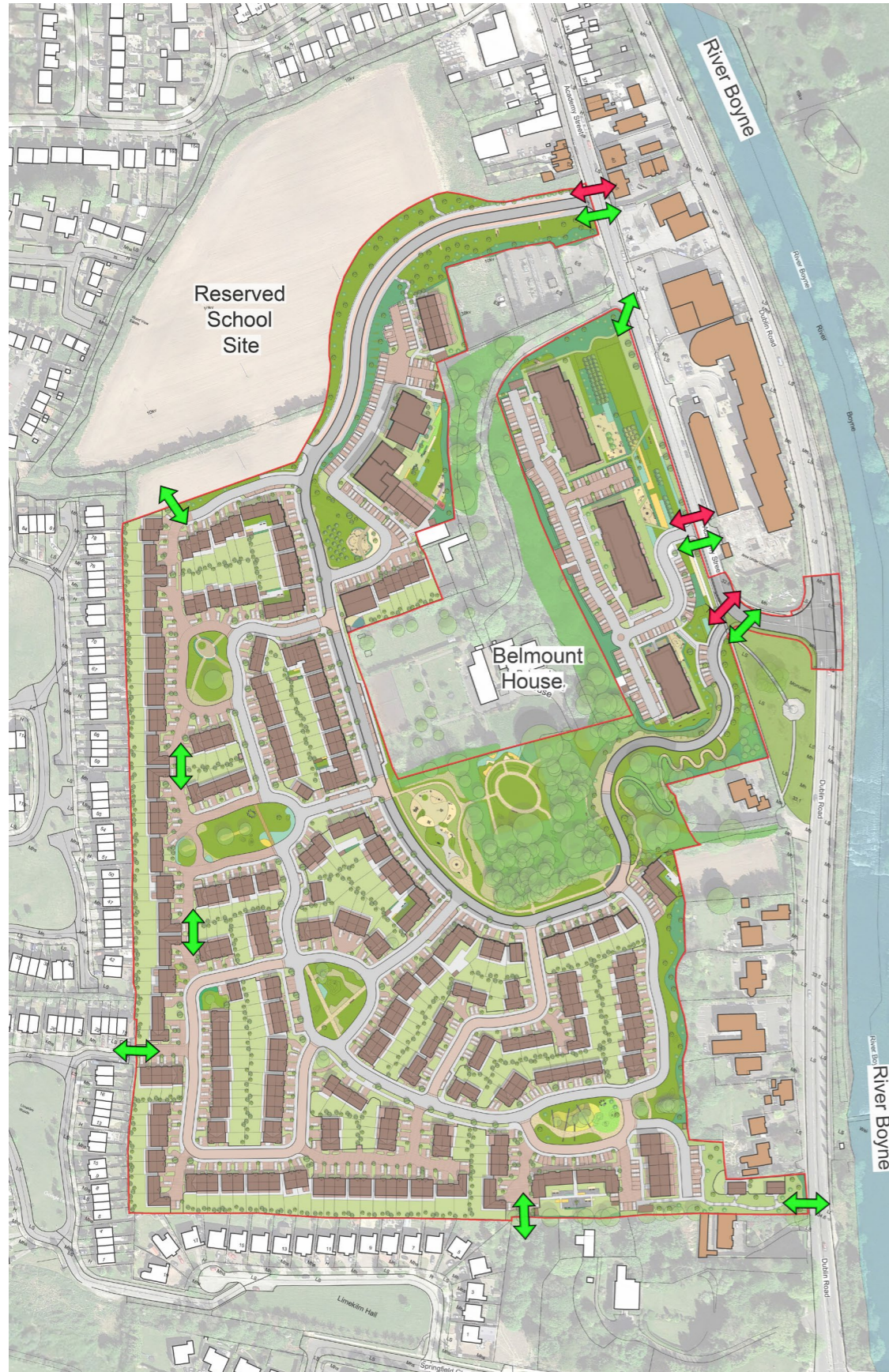
Belmont House and its historic landscape sit above a wooded escarpment overlooking Academy Street. Its driveways climb through the woodland to the site above. This is the reference point for the two sylvan access routes connecting to the lands above: The southern access gently rises through the mature woodland south of Belmont House, and the northern entrance is a gently curved wooded valley rising up to the plateau above. The two routes loop together across the site maintaining contact for the most part with the historic tree lined boundaries of Belmont.

The balance of the site is agriculture tillage land now surrounded by well established two storey houses. There are some isolated trees in field boundaries and these have been used to define local character areas tied together as a necklace of local pocket parks. The outermost edge of the site responds in kind by backing onto the rear gardens of the existing two storey housing.

Density and form change to suit local conditions – higher density apartments in the urban context closest to town, mixed duplex with two and three storey houses along the spine loop route, three storey wayfinder houses at strategic points in the green necklace, and lower building heights and density meshing with the surrounding two storey family housing around the outer site edges. This reduction in intensity and height from the core to the periphery is also reflected in the route hierarchy and so reinforcing legibility within the scheme.



Right: Site layout in context



2 Connections:

How well connected is the new neighbourhood?

The scheme forms an edge to a main route into Navan and allows for numerous local connections to the surrounding residential area, schools etc. It is essentially an infill site with existing housing backing onto the western and southern boundaries.

The scheme is accessed from Academy Street which leads into the town centre at Market Square c.750m north. The mixed use facilities of Navan are within a ten minute walk of the site entrance. The proposal enhances permeability for the surrounding areas by providing previously unavailable ways through to Academy Street and the Navan centre facilities, local bus stops, and to the recreational facilities along the Boyne. These links will best facilitate pedestrian and cycle modes.

In the southeast corner there is pedestrian access directly down to the bus stop on the R147. Here there is a further enclave of duplex units facing the open space which defines the character area. These units provide passive surveillance to this proposed pedestrian link.

Connection is made towards Railway Street to the West and the potential future reopening of the train station. There are buses on Dublin Road and additional connections facilitate access to the stops. The new connections also facilitate access to the proposed school.

Further provision is made to allow future connectivity to the existing housing at Lime Kiln Hall and to undeveloped lands to the south east which could afford a connection to Springfield Glen.

Cycle and pedestrian permeability works independently from vehicular demand. The homezones around the perimeter are all connected by cycle/pedestrian links only; the necklace of local pocket parks is connected with a street with a scooter friendly wider footpath and

larger street trees. This is the most direct route to the school for most residents.

There is an appropriate variation in density within the site graduating from high density on Academy Street, medium density along the inner loop route, and the lowest intensity bordering the existing two storey housing along the periphery.

Left :Site layout overlaid with principal connections to the existing context. Legend below

 Pedestrian/ Cycle Connection

 Vehicular Connection

3 Inclusivity:

How easily can people use and access the development?

A variety of new homes are provided – both houses and apartments, and ranging from 1 bedroom apartments to 4 bedroom houses. The design permits access for all.

Living/kitchen areas are located to the rear and are capable of extension into the rear garden. Attics in most cases are capable of conversion.

The house designs allow for adaptability. Most houses have a straight stairs facilitating a chair lift, and the ground floor is arranged to suit disabled access or impaired mobility. Large open plan kitchen / living areas allow the further possibility of the main living room to be used as a downstairs bedroom with side by side WC and utility room convertible to a disabled bathroom.

The mix of dwellings within the scheme allows residents to move to a more suitable home within their own community if or when the need arises. Apartments suitable for downsizing are closest to the town facilities and bus stops, at the bottom of the hill.

Various character areas will suit different individuals/ and age groups: urban apartments closer to town, family houses close to open space and schools. Quiet homezones, houses overlooking green spaces, or bustling urban streets, are all part of the scheme.

Open spaces are clearly defined and are designed to inform the identity and sense of place of character areas within the scheme. The main woodland park will be an attraction for residents from a wider area, and will be constantly available to all passing school goers. Local pocket parks form the local focus of housing clusters. They are arranged as a necklace of parks where the link street has a wider than normal footpath with large trees giving it importance in the local street hierarchy. All are appropriately overlooked whether it

is the urban apartments on the linear park approach to Navan, houses and duplex units overlooking the woodland park or family houses overlooking local greens where their children play. The new buildings present a positive aspect appropriate to each location.

There is a reserved school site within the scheme together with the social and community uses that it will bring with it. There is also a crèche opposite the school to simplify accompanying children of all ages as needed. Commercial and leisure facilities are located in the town and the additional population within walking distance should serve to reinforce the viability and choice of available amenities.



Right: Ease of Adaptability - Main living room can be converted to a downstairs bedroom and utility /wc into a Part M Bathroom as necessary



Above: Market Square in Navan is 800m north of the Academy Street entrance.

Below: The scheme allows access to the historic wooded gardens of Belmont House.



4 Variety:

How does the development promote a good mix of activities?

The proximity of the scheme and its new population close to the centre of Navan will enhance the viability of the amenities of the town. The densest parts of the proposal are closest to the town centre. The proposal also contains a school site and open space accessible to the wider area.

The school and the main open space within the neighbourhood are at each end of the loop route; close to the connections to Academy Street. Potential new connectivity from Woodview and Limekiln Wood estates benefit all. The uses are compatible and mutually supportive – family housing is closest to the school, crèche and open space; apartments are closest to the town and river amenities.

The proposal responds appropriately to neighbouring uses:

- A strong urban edge to Academy Street heralding the town centre.
- Strong edges to the neighbourhood woodland park and loop route
- The historic edges of Belmont Demesne are retained and the wooded garden restored.
- Adjoining back gardens of adjacent properties secured with back gardens of the proposal.
- Appropriate potential future connection points are provided to the surrounding areas.

The mix of houses and apartments provide a range of housing typologies and sizes and will facilitate different tenure opportunities. Downsizing opportunities closer to town and amenities will be available to householders as they get older.

5 Efficiency:

How does the development make appropriate use of resources, including land?

This site is infill. It is located between 800m and 1300m direct distance of the town centre. This is a ten minute or so walk to the Academy Street apartments, and up to 20 minutes to outer edges of the housing. It can avail of existing services and amenities in the town centre. It is also fully serviced and with adequate road network in place as well as a reserved site for school.

The scheme brings an infill site into sustainable use.

The open spaces preserve and enhance existing woodland and field trees, supporting biodiversity and pollinator friendly opportunities. Existing historic landscape and trees provide the setting and amenity for scheme and enhance sense of place. Pocket parks located to preserve existing field trees define character areas. Sustainable drainage systems are provided throughout.

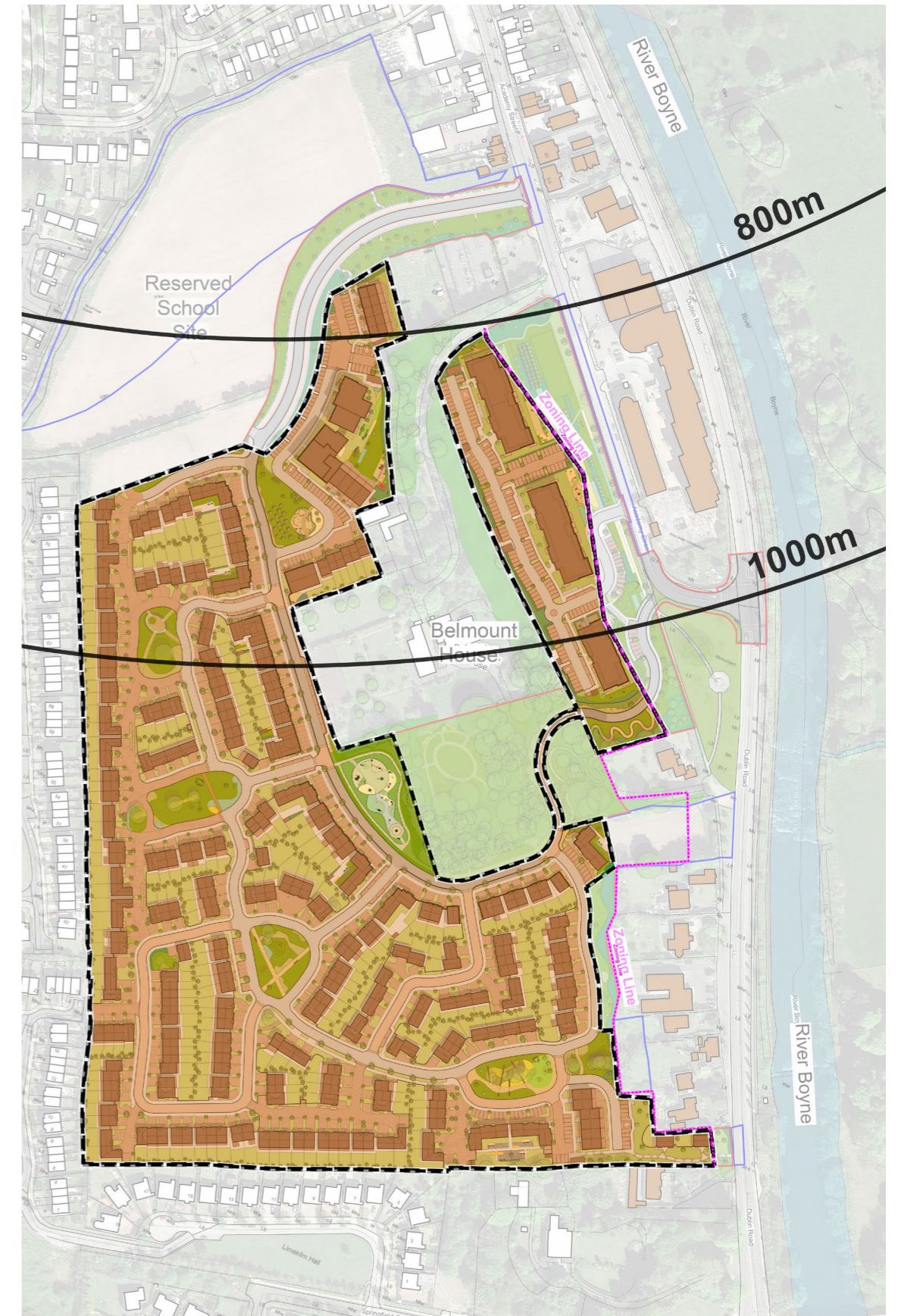
The scheme is organised to maximise good solar orientation - minimising the number of houses with North aspect gardens. The communal areas and open spaces of apartments blocks have sunny aspects.

All houses and apartments are provided with space for three bins to facilitate all kinds of waste: The regular black, green recycling and brown composting bins. Larger waste items such as furniture or electrical items can be brought to the Oxygen Recycling Centre in Navan.

An average density of 44.5/Ha is achieved, graduated according to urban proximity. Apartments on Academy Street provide the highest density appropriately close to the town. Within the scheme higher density typologies, mainly duplex, are located along the main loop route reinforcing its place in the route hierarchy, while the lowest density occurs backing onto the gardens of existing two storey houses along the periphery. The main area of housing is close to the

school and in an environment that does not require crossing busy roads to get there.

Right :Site layout overlaid with 800 and 1000 metre isocrones (originating at Market Square)





6 Distinctiveness:

How does the proposal create a sense of place?

The scheme relies on recognisable features to form identity – the access from Academy Street, the sloped and wooded approach sequences, the mature wooded central park, individual mature trees in smaller local open space forming the pivot in character areas.

The key features that identify the place at scale of district are its location close the Boyne, its position as a gateway to Navan on Academy Street, and the rising topography and wooded escarpment between the upper and lower character areas.

Existing features are retained and strengthened to become integral to the design and structure of the new place. The historic wooded setting of Belmont defines the atmosphere and is to be retained.

The urban edge to Academy Street reinforces the predominance of Navan centre beyond, the mature woodland forms the focal point in the inner housing area, retained trees in pocket parks define local character areas.

Roads are orientated to frame views of local landmarks: The two spires, the viaduct and castle. This integrates the site with the town and reaffirms its proximity.

Left: Connection Visually with Navan

● ● ● ● ● View to the steeple of St. Mary's Church along Belmont Avenue

● ● ● ● ● View to St. Mary's Church from Park

Far Left: The scheme allows access to the historic wooded gardens of Belmont House.

6.1 Character Areas

There are a number of character areas within the scheme. These enhance of sense of local identity and community. These character areas are arranged to provide a sense of coherence and legibility as individual but sibling parts of the same neighbourhood.

6.1.1 Academy Street

Academy Street is the old southern approach to Navan. The Railway bridge acts like a town gate announcing entry. The application site is a transition between the river context of the Boyne and the urban street section of the town. It makes this transition with a linear park edged by four to five storey plus penthouse apartments. This park is urban in nature with a north-south movement pattern and the building line maintains a constant edge reflecting its streetside town context. There is an escarpment with mature trees parallel and behind the buildings. Car parking is hidden between the buildings and the bank, while the open space forms part of the public realm of Navan.


6.1.2 School Hill & Belmont Avenue North

The town context: The northern end of Belmont Avenue rises slowly from Academy Street close to the town in a gently curved valley with wooded sides emulating the southern access. The street is contained and overlooked by apartment and duplex homes to the east. The school entrance is at the top of the hill. Desire lines to the town, the school, and potentially the railway station to the north west all meet at this end.

School Hill is the nearest part of the upper site to the town. It is consequently denser with a mix of apartments, duplex and houses. Higher buildings with living rooms on all levels improves passive surveillance on Belmont Avenue as it enters into cut on its way down to Academy Street. The area has a small entrance park which the crèche fronts onto. There are parallel drop off spaces on Belmont Avenue, and parking at the building.

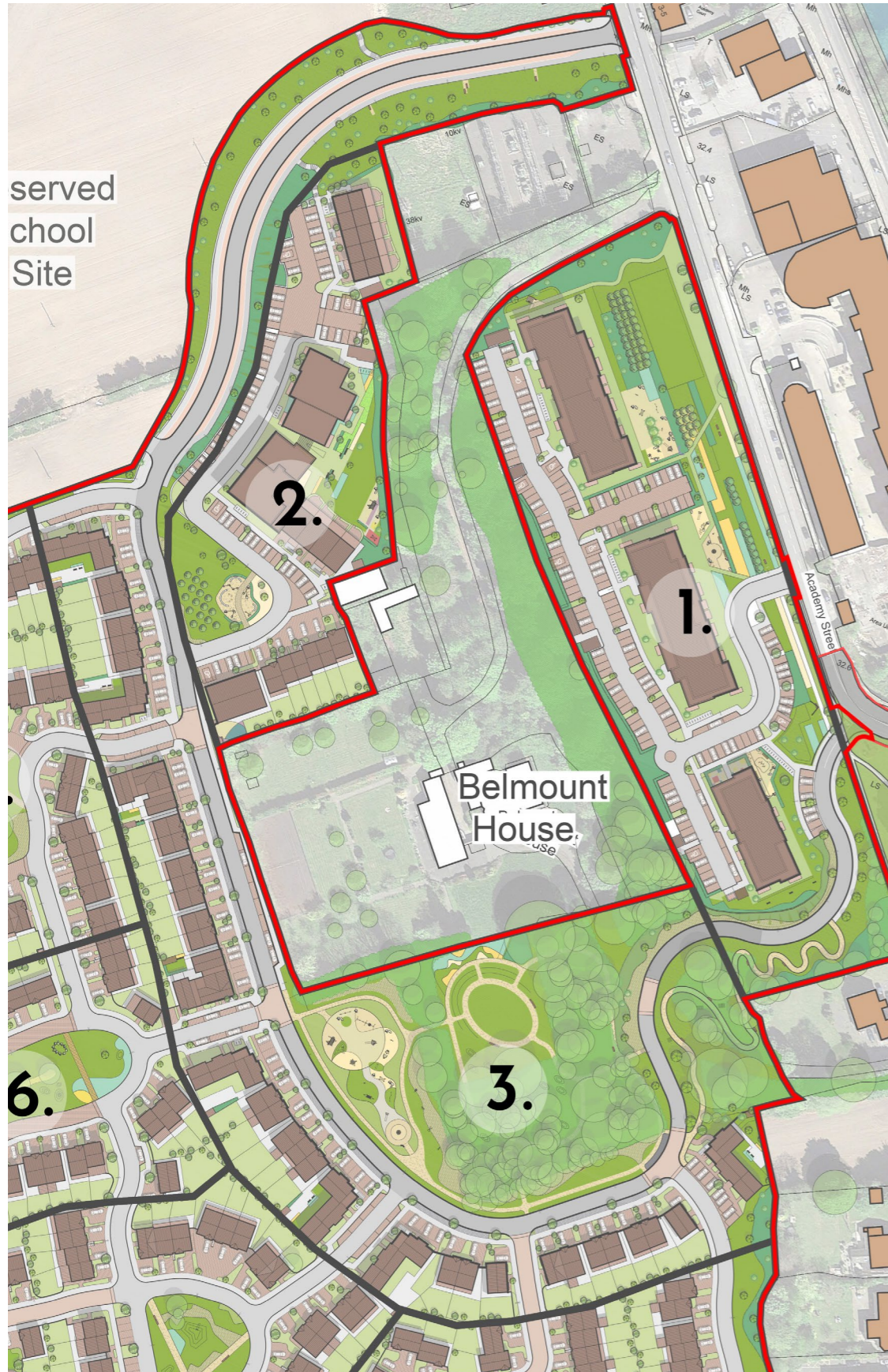
6.1.3 Belmont Avenue South and the woodland park.

The sylvan context: The southern end of Belmont Avenue enters at the beginning of Academy Street within sight of the Boyne. It rises gently in a serpentine way into and through the existing woodland to emerge above and then follows the boundary of Belmont demesne around and picking up sequential views of the town spires and railway bridge as it meets the northern leg. The outer edge of the curve is visually dominant and is planted in an avenue of trees. This allows a wider path for scooters etc. on the school approach. The built edge is a mixture of houses and three storey duplex buildings, the latter marking the corners of entrances to the various local character areas. The inner edge is the woodland park, and the wooded rear boundary of Belmont House. The tree planted avenue and contained park with mature trees sets the context and identity of the scheme as a whole. This is the emerging view as each local character area rejoins Belmont Avenue.

- | | | | |
|--|----------------------------------|---|---------------------------|
|  | Academy Street |  | School Hill |
|  | Belmont Avenue South |  | South Park and Boyne Link |
|  | High Park and Limekiln Hill Link |  | The Ashes |
|  | Oval Park | | |

Right :Site layout overlaid with colours denoting character areas. Legend above





Above: 1. Apartments to Academy Street Provide an Urban Edge



Above: 2. Apartments and Duplexes in School Hill Provide Density and a mix of unit types to this character area appropriate to the proximity of Navan town centre



Above: 3. Elevation to Belmont Avenue. Scale of this character area steps down yet corner turning units announce the entrance into the more intimate character areas of the scheme

6.1.4 South Park and the Boyne link.

This is the first character area met on Belmont Avenue southern approach. The entrance is along the top of the wooded escarpment behind existing houses on Dublin Road and proceeds to meet the first pocket park which contains a spine of existing trees. The space is overlooked by three storey duplex and by houses. A tree lined avenue, Middle Avenue, connects northwards from South Park to the next character area. A block of duplex homes take up the level change in the south east corner and watch over a link down to Dublin Road. Two houses are located along the route for passive surveillance. There is also a minor street linking back to Belmont Avenue.

The duplex blocks at the green contain wide fronted units at garden level, and these face wide fronted houses on the other side of the green. This sets the character of the enclosure. Materials inside Belmont Avenue will be a mixture of brick and render particular to this area. Slate roofs and common detailing maintain a common theme with the neighbourhood. Western periphery streets all interconnect with pedestrian/cycle only links.

6.1.5 High Park and the Limekiln Woods link.

The entrance is opposite the woodland park. Framed by a pair of duplex blocks, it leads into a pocket park which orientates the character area. A terrace of three storey houses face into the park, and there are framed views back out to the woodland park. The tree lined Middle Avenue connects to the pocket parks on either side giving legibility to the scheme. A mews loop circulates behind and rejoins the park. This also allows for potential cycle/pedestrian connection to Limekiln Woods estate.

The space is essentially triangular and the enclosure is defined by the three storey terrace facing the entrance, with the two flanking sides at two storey. Existing trees are located at its northern and southern corners. Other mature trees form a small punctuation on mews loop suggesting the way through to Limekiln Woods.

The necklace of parks:

The character areas to the west and south of Belmont Avenue are all connected to each other in a descending hierarchy of streets:

- Firstly, of course, along Belmont Avenue itself,
- Secondly along an internal secondary avenue connecting from pocket park to pocket park (See *diagram on right*). This avenue is tree lined again along the outer visually dominant side of the street, and it forms a more local connection between adjoining housing cells
- Finally, homezones along the southern and western periphery all interconnect with pedestrian/cycle only links.

Each character area has a direct link from Belmont Avenue to the pocket park which forms the identity of the local enclave and orientates movement. Each pocket park is distinct in its shape, enclosure and planting theme. Each is itself. Three storey houses are interspersed at pivotal positions as view closers and way markers at each space and reinforcing the connection from green to green.

The character area becomes more intimate as they get further away from the entrances. It gradates from Belmont Avenue, to the shared pocket park, to the quiet homezones behind. Road finishes adjust accordingly.

Desire lines are organised so vehicular traffic never goes through a homezone to go anywhere else, or past a pocket park unless it serves your local enclave, your home.

Materials along the length of Belmont Avenue are consistent: A soft red brick predominates with small areas of render on the duplex blocks, roofs are slate and windows are cream/white.

Right :Site layout indicating new tree lined connection between pocket parks in each character area





Above: Detail from site layout of the South Park Character Area.



Above: 4. Duplex Elevation to South Park



Above: Detail from site layout of the High Park Character Area.



Above: 5. The three storey elevation facing High Park

6.1.6 The Ashes

Again the entrance is opposite the woodland park with framed views in and out. The entrance is marked by duplex corner buildings on Belmont Avenue. This is a small housing cell and the open space is oval with a copse of mature trees at one end. Middle Avenue joins from either side near its entrance. The quiet end is a homezone.

While the entrance to the space is flanked by three storey houses, the enclosure is 2 storey giving a character distinct from its larger neighbour to the south. Again materials will be a mixture of brick and render particular to this area. Each character area has a subtly different brick while slate roofs and common detailing continue a common theme with the neighbourhood



Above: 6. Typical Street elevation of the Ashes character area



Above: 7. Two storey homezone elevation of the Oval Park character area

6.1.7 Oval Park

The entrance here is opposite the crèche and marked on Belmont Avenue by a pair of duplex buildings. It leads into a small intimate open space with a home zone on 3 sides. The pocket park accommodates existing trees. Middle Avenue ends here.

The character of the enclosure is informal and gentle, and all two storey. Finishes will follow the same palette as Middle Park.





6.2 Building Materials

The palette of building materials will have enough consistency to ensure it all appears as one neighbourhood, and enough local variation to give distinction to reinforce character. It is not intended to appear like several conjoined housing estates.

Successful character differentiation will also rely on position, existing features such as retained trees, the type of road and its place in the hierarchy, and the local detailing of the open spaces defining each place.

6.2.1 Precedent examples

Traditional neighbourhoods are often successful because they are legible and cohesive. Legibility comes from their connectedness and from consistency of building types and materials.

These areas often have clearly identified characteristics.

The distinctiveness of Ranelagh is its red brick consistency. There are many differently detailed house types, but essentially relatively few plans are deployed, which generally address the street the same way, usually with a small threshold zone, sometimes not.

The response is consistent, the materials uniform.

Left: CGI of typical House Types



Elmpark Avenue, Ranelagh



Chester Road, Ranelagh



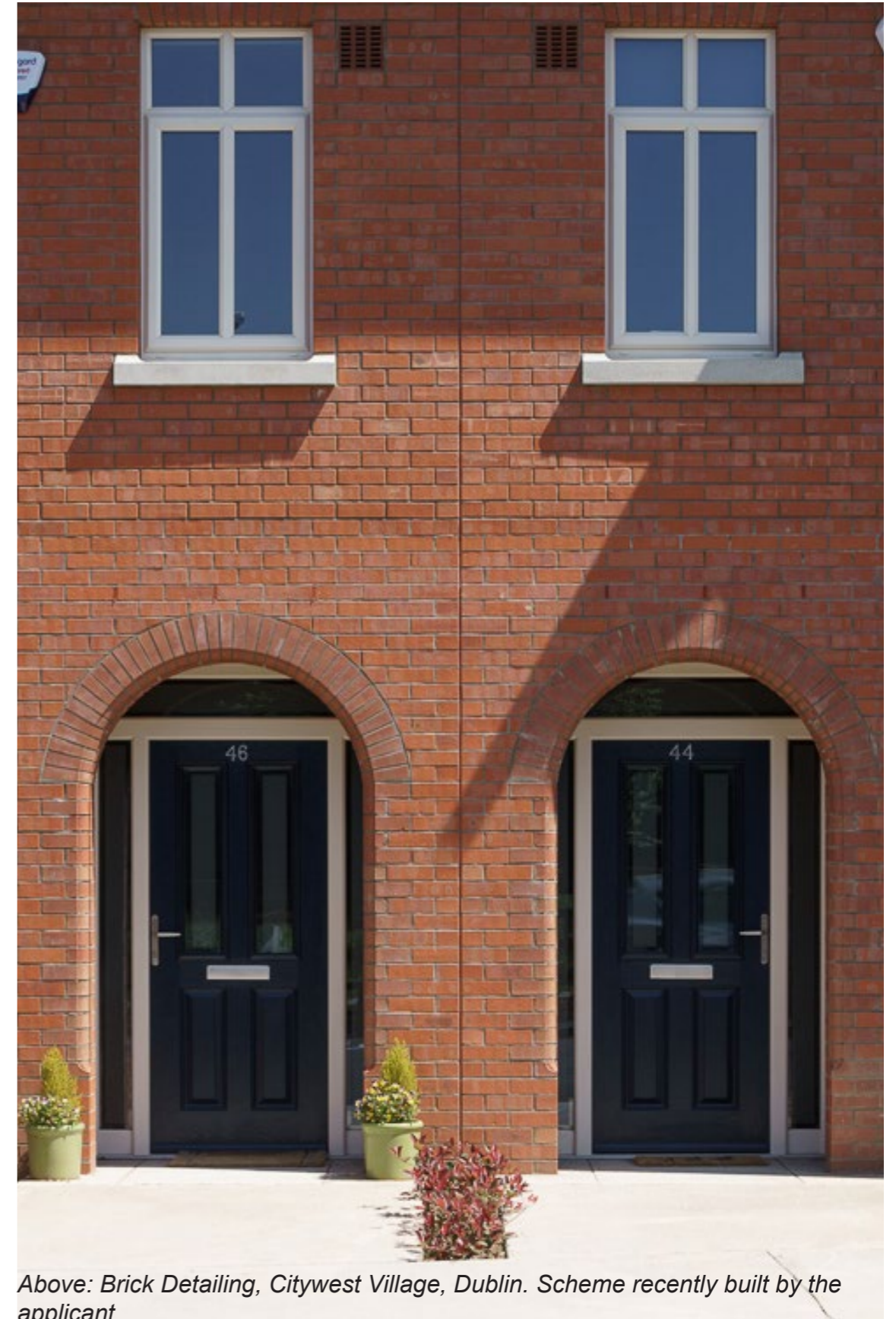
Edenvale Road, Ranelagh



Above: Hansfield, Dublin



Above: Render and brick finish - Robswall, Malahide



Above: Brick Detailing, Citywest Village, Dublin. Scheme recently built by the applicant



7 Layout:

How does the proposal create people friendly streets and spaces?

The routes forming the layout follow existing features which enhance character. Academy Street is reinforced as a primary route into Navan with a new urban park lined with a strong edge of apartments.

The primary route into and through the site makes the most of existing topography and trees to create a memorable leafy sequence along a strong curving avenue with views back to local landmarks in Navan. Secondary streets lead generally east/west directly and unambiguously to focal pocket parks which in turn are linked as a necklace by Middle Avenue. The quietest areas, homezones and mews streets are the furthest in.

Vehicular traffic goes directly into each cell with no desire lines for inappropriate short-cutting.

Pedestrian desire lines occur north/south towards the school and town. Interlinked homezones, and tree lined path on Middle Avenue make pleasing ways to move within the housing without going back to the edge on Belmont Avenue.

There is a very clear street hierarchy – graduated from busy to calm. Child friendly homezones, local greens well overlooked by surrounding housing, a strong edge to Academy Street, all offer appropriate environments according to position in the scheme.

Traffic speeds are controlled by layout and horizontal deflection, buildings are close to the street in places, and the variety of buildings and streetscape provide interest, security and sense of place.

Open spaces are all overlooked to enhance local passive security and local 'ownership'. They are the focal points curating existing trees which give a sense of permanence. Each has its own character and emphasis as explained in detail in the landscape report.

8 Public Realm:

How safe, secure and enjoyable are the public areas?

All the public open space is overlooked by development and forms an integral part of local housing character.

The public realm hierarchy for open spaces and for streets clearly overlay and are mutually supportive.

Streets are places – whether routes, edging spaces or homezones. The routes form sequences of spaces enhancing the sense of arrival and framing views.

There is a clear definition of open space as communal and distinct from private. The organisation of open spaces define character and place within the scheme.



Left: Site layout

Above: Extract from Site Layout showing a typical local park with existing trees and homezone on the quiet side

9 Adaptability:

How will the buildings cope with change?

There are opportunities for houses to extend into the rear garden for both the narrow and wide fronted house types. In some house types, space in the roof can be converted into living accommodation.

Homes are energy efficient with the majority avoiding a north aspect to the rear, where there is most glazing.

The neighbourhood provides a variety of typologies suitable for all stages of life making it easier to move home within one's community as circumstances change.

See section 3 - Inclusivity for house type adaptability.

10 Privacy and Amenity:

How does the scheme provide a decent standard of amenity?

Each house is served by an area of usable private outdoor space that meets development plan standards, and as noted, most commonly with a sunny aspect.

Apartments have integral balconies, designed to overlook the public parks in two directions at nodes along the park edge. Apartments also have communal amenity space. All are sized to meet or exceed Section 28 guideline sizes.

11 Parking:

How will the parking be secure and attractive?

Car parking is provided generally within the curtilage of the house it serves, combined with trees/shrubs to provide an attractive streetscape.

Communal car parking is also provided to terraced

houses where natural surveillance is feasible being located in front of the dwellings. Parking is broken up with tree planting.

Variety in house frontage width, and use of homezones, provide variety in the appearance of parking. Apartment parking is overground, clearly overlooked, and integrated into the landscape.

Visitor parking is located off Academy Street for those using the new parks or visiting people in the apartment blocks. The streets within the housing areas afford opportunities for on street parking for visitors.

12 Detailed Design

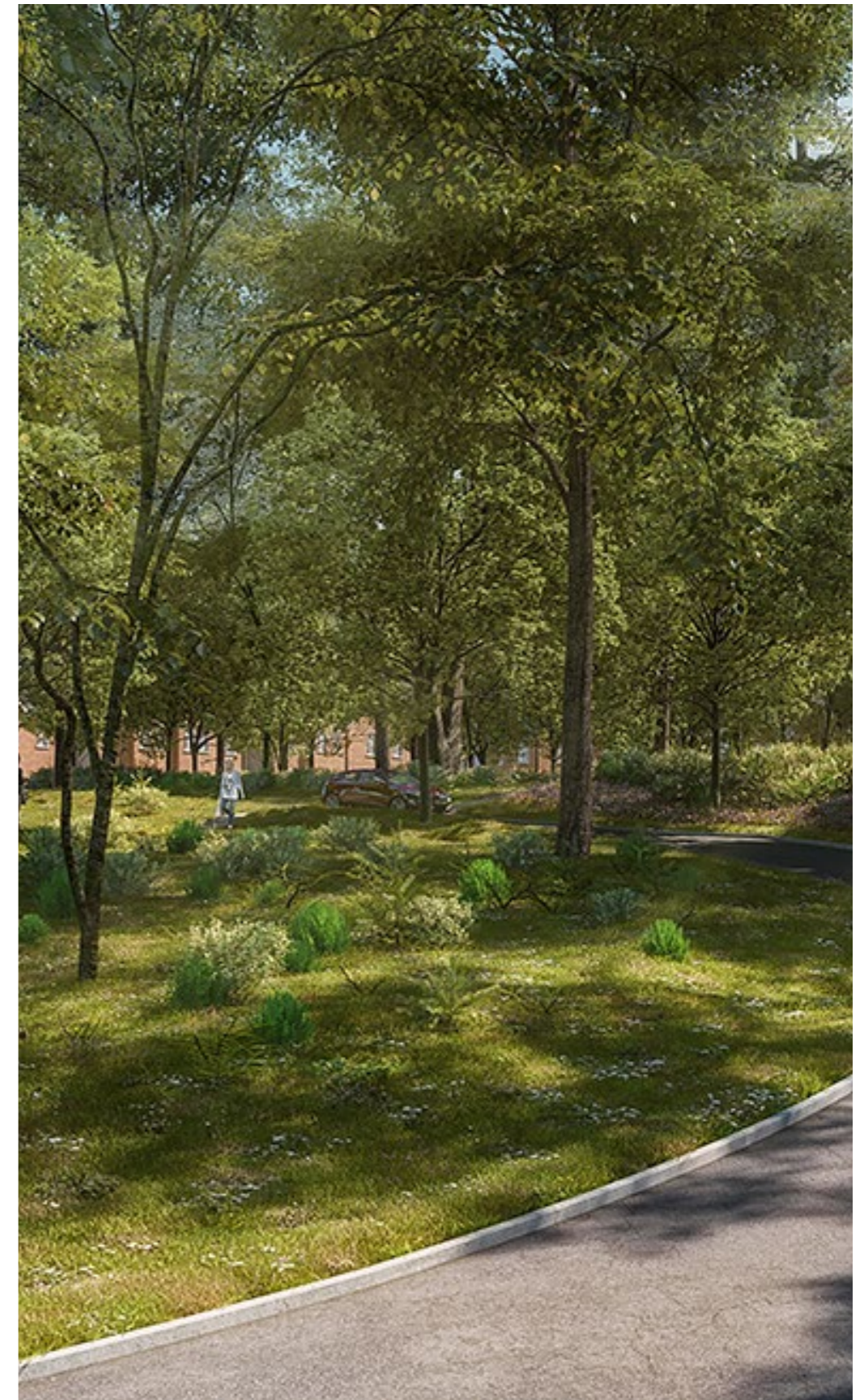
How well thought through is the building and landscape design?

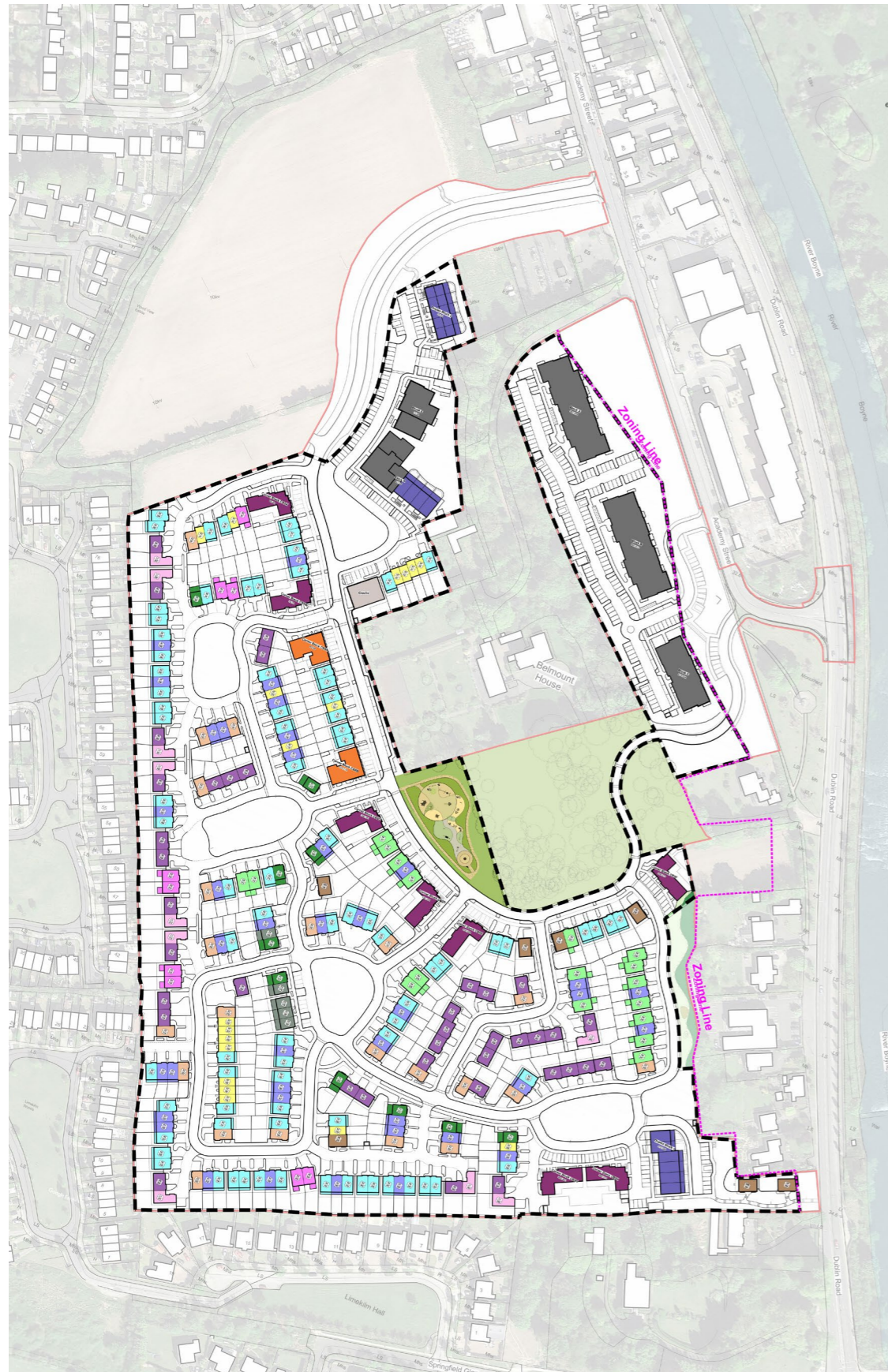
Existing landscape features informed the hierarchy of the scheme and its design. The existing woodlands have become a key feature in generating sense of entrance and place.

Local parks centred on existing trees reinforce local identity, and as a necklace of parks leading towards the school provide structure and connectivity.

The detailed house type and apartment block drawings indicate proposed elevational materials and finishes. Brick and slate predominate as traditional and durable materials which weather well and build character overtime.

Right: The woodland surrounding Belmont Hall as Public Amenity





House Type E2 110.4m ²	3 bedroom	- 22
House Type N1 111.5m ²	3 bedroom	- 39
House Type N2 114.3m ²	3 bedroom	- 83
House Type N3 120.5m ²	3 bedroom	- 9
House Type N4 132.7m ²	4 bedroom	- 18
House Type N5 120.6m ²	3 bedroom	- 39
House Type N7 84.0m ²	2 bedroom	- 18
House Type N8/N8A/N8B 129.7m ²	4 bedroom	- 7
House Type L1 135.2m ²	4 bedroom	- 10
House Type F2/F3 144.0m ² /145.2m ²	4 bedroom	- 5
House Type F1 145.0m ²	4 bedroom	- 10
18 no. 2 Bed Houses		
192 no. 3 Bed Houses		
50 no. 4 Bed Houses		
TOTAL HOUSES		- 260
TOTAL RESIDENTIAL UNITS		544
Site Area 12.23Ha		44.5/ha
Total 1 bed units	- 62	- 11.4%
Total 2 bed units	- 209	- 38.4%
Total 3 bed units	- 223	- 41.0%
Total 4 bed units	- 50	- 9.2%
Total Units	- 544	- 100%

Duplex Units:	
Garden Apartments	2 bedroom - 15
Duplex Apartments	3 bedroom - 15
Total Units in Duplex Blocks	- 30
Corner Blocks:	
8 no. CB5 type Corner Blocks with 5 no. units in each block: (2 no. 3 bed maisonettes, 1 no. 2 bed maisonette, 1 no. 2 bed simplex apartment and 1 no. 1 bed simplex apartment in each block)	- 40 (8 x 5units)
2 no. CB8 type Corner Blocks with 8 no. units in each block: (4 no. 2 bed maisonettes & 4 no. 1 bed simplex apartments in each block)	- 16 (2 x 8units)
Total Units in Corner Blocks	- 56
Apartment Blocks:	
1 bed apartments	- 46
2 bed apartments	- 152
Total Apartments	- 198

4.3 Housing mix and density

The proposal provides a mix of apartments, duplex and houses. The denser elements are clustered closest to the town, while predominantly family housing is arranged in the streets behind.

There are 544 dwellings proposed:

There is a wide mix of housing typologies and sizes proposed:

- 260 Houses comprise 48% of the dwellings.
- 86 Duplex / Corner buildings comprise 16%
- 198 Apartments comprise the remaining 36%.

There is also a wide range of sizes. One and two bedroom units, are mainly, but not entirely, apartments. Three and four bedroom units more suited to families tend to be houses with gardens.

One bedroom dwelling	62	11.4%
Two bedroom dwelling	209	38.4%
Three bedroom dwelling	223	41%
Four bedroom dwelling	50	9.2%

The gross application area is 15.1Ha. This includes all of the residentially zoned land, the parks and the through access road. The Nett site area excluding land not zoned residential, principal open space, and the loop road as far as the school is 12.23Ha.

This gives rise to a nett density of 44.5/Ha.







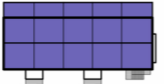

Left :Site layout overlaid with colours denoting house/apartment types. Legend above

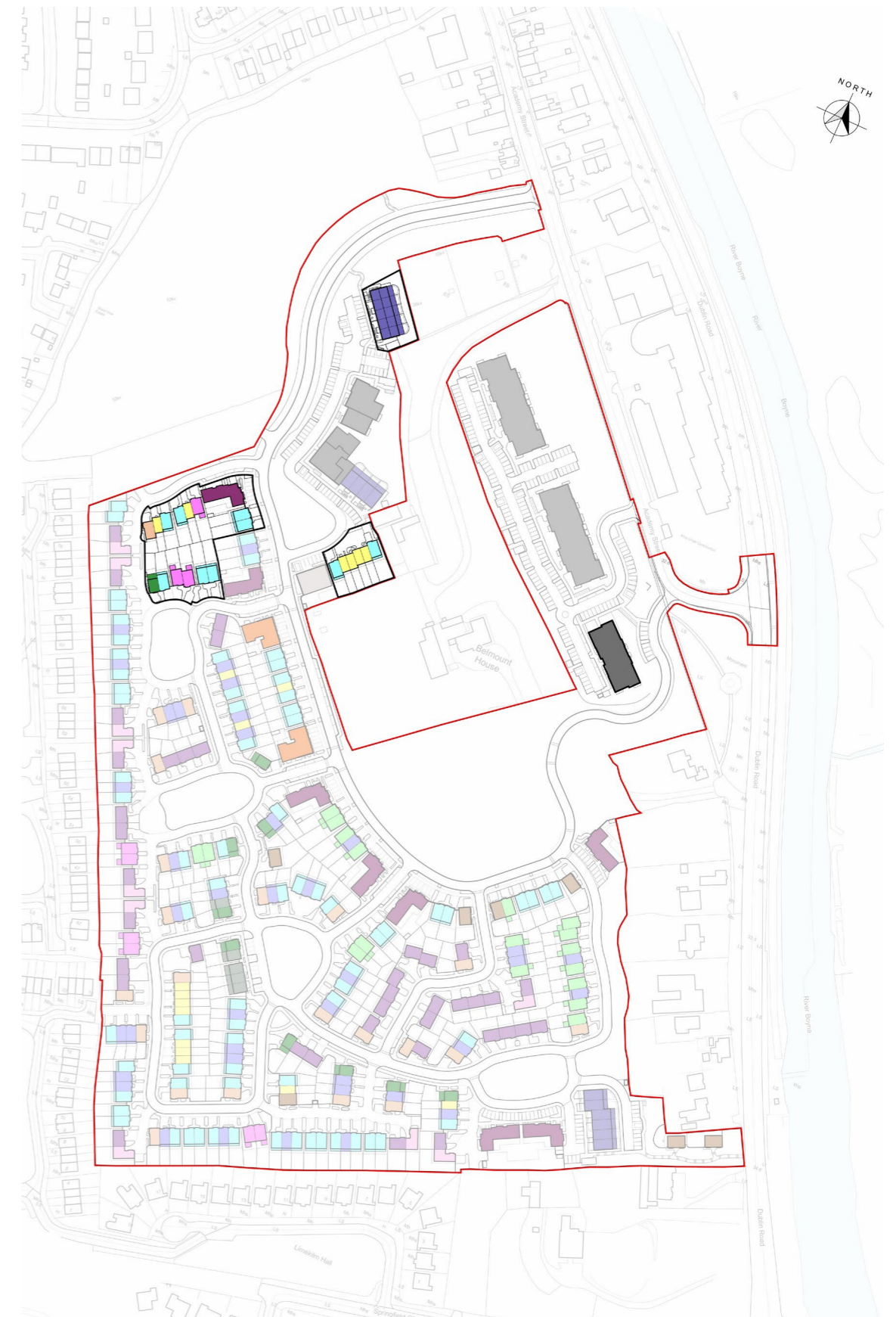
4.4 Part V Housing

4.1 Dwelling mix and quantum

The proposed development gives rise to a requirement of 54 social housing units under Part V.

- 6 no. Two bedroom houses
- 13 no. Three bedroom houses
- 1 no. Four bedroom house
- 8 no. One bedroom apartments
- 19 no. Two bedroom apartments/duplexes/maisonettes
- 7 no. Three bedroom apartments/duplexes/maisonettes

House Type E2		3 bedroom	- 1
House Type N2		3 bedroom	- 9
House Type N3		3 bedroom	- 3
House Type N7		2 bedroom	- 6
House Type F1		4 bedroom	- 1
Corner Block CB5A: (2 no. 3 bed maisonettes, 1 no. 2 bed maisonette, 1 no. 2 bed simplex apartment & 1 no. 1 bed simplex apartment)		1 bedroom 2 bedroom 3 bedroom	- 1 - 2 - 2
Duplex Units:		2 bedroom 3 bedroom	- 5 - 5
Apartment Blocks:		1 bed apartment 2 bed apartment	- 7 - 12
Total Part V Units			- 54 (10%)



Right: Location of Part V Units within the Development

5.0 DMURS

The proposed development is intended to deliver a high quality environment which will be compliant with the recommendations set out in the *Design Manual for Urban Roads and Streets* (DMURS), the stated objective of which is to achieve better street design in urban areas.

Achieving better street design in urban areas will encourage more people to choose to walk, cycle or use public transport by making the experience safer and more pleasant. It will lower traffic speeds, reduce unnecessary car use and create a built environment that promotes healthy lifestyles and responds more sympathetically to the distinctive nature of individual communities and places.

Creating a Sense of Place

Four characteristics represent the basic measures to create people-friendly streets that facilitate more sustainable neighbourhoods.

1. Connectivity

The creation of vibrant and active places requires pedestrian activity. This requires walkable street networks that can be easily navigated and are well connected. The proposed development gives pedestrians and cyclists precedence over other modes of transport, through additional pedestrian and cycle links that ensure active modes of travel are always the most direct option.

The scheme forms an edge to a main route into Navan and allows for numerous local connections to the surrounding residential area, schools etc. It is essentially an infill site with existing housing backing onto the western and southern boundaries.

2. Enclosure

A sense of enclosure spatially defines streets and creates a more intimate and supervised environment. A sense of enclosure is achieved by orientating buildings towards the street and placing them along its edge.

The use of street trees can also enhance the feeling of enclosure.

The proposed development has been designed so residential units are overlooking streets and public open spaces which provides passive surveillance. Landscaping and tree planting are provided along the roads/streets which assists in providing a sense of enclosure.

3. Active Edge

Active frontage enlivens the edge of the street creating a more interesting and engaging environment and ensures the street is overlooked by generating pedestrian activity as people come and go from buildings.

Entrances to apartment blocks and duplexes are provided directly from the street. Terraces of houses also provide continuous frontage.

4. Pedestrian Activity/Facilities

The sense of intimacy, interest and overlooking that is created by a street that is enclosed and lined with active frontages enhances a pedestrian's feeling of security and well-being.

Good pedestrian facilities (such as wide footpaths and well designed crossings) also makes walking a more convenient and pleasurable experience that will further encourage pedestrian activity.

The proposed development has been designed to provide excellent pedestrian and cycle connectivity. All urban blocks have significant active frontage, creating activity and providing surveillance to enhance pedestrians' feeling of safety and well-being.

The proposed development has been designed to reduce traffic speeds with long straight sections of road, where possible, being avoided. Road junctions incorporate raised tables which improve pedestrian crossing facilities, particularly for disabled users and people pushing prams/buggies, and serve as an additional traffic calming measure.

Key Design Principals

DMURS sets out four core design principles which designers must consider in the design of roads and streets.

1. Connected Networks

The proposed development has been carefully designed to ensure that the focus on connectivity is centred on pedestrians and cyclists, which will promote walking and cycling by making them a more attractive option than the private car.

2. Multi-Functional Streets

The proposed development includes a mix of houses, duplexes and apartments. Provision has been made for a wide range of residents. A crèche will further diversify the

range of users and activities on the streets within the proposals.

3. Pedestrian Focus

The design of the scheme has placed a particular focus on the pedestrian. Connectivity throughout the scheme is heavily weighted towards the pedestrian and away from the private car. The streetscape has been designed to provide a sense of enclosure and to be active with good passive surveillance in order to enhance pedestrians' sense of safety and well-being.

The street design incorporates well thought out pedestrian facilities such as generous footpaths, pedestrian crossings and raised tables.

4. Multi-Disciplinary Approach

The design of the proposed scheme has been developed through the design team working closely together.

DMURS Summary

The site is located in Navan, Co. Meath, which is defined as per DMURS Section 3.2. 2 "Place Context" as a neighbourhood which is intensively developed with medium to higher density housing and contains a broad mix of uses.

An active frontage is achieved with frequent entrances and openings that ensure the street is overlooked and generate pedestrian activity as people come and go from buildings.

The roads throughout the development have regular junctions and pedestrian crossings in accordance with this recommendation.

Both perpendicular and parallel on-street parking spaces are incorporated at various locations throughout the development. On-street parking separates pedestrians from the vehicle carriageway and, as per DMURS Section 4.4.9, can calm traffic by increasing driver caution, contribute to pedestrian comfort by providing a buffer between the vehicular carriageway and foot/cycle path and provide good levels of passive security.

Roads through the development have been designed with a gentle horizontal curvature, which helps to calm traffic without impeding on safe sight lines or unduly increasing walking distances for pedestrians, and is in accordance with alignment and curvature recommendations set out in DMURS Section 4.4.6.

The public areas fronting and within the proposed development have been designed by the multi-disciplinary design team to accommodate pedestrians and cyclists in accordance with the appropriate principles and guidelines set out the Design Manual for Urban Roads and Streets.

It is considered that the proposed development is fully compliant with the connectivity objectives of DMURS.

6.0 UNIVERSAL DESIGN

All the houses, apartments, duplexes, and public realm have been laid out to enable easy access by all and fully comply with Part M of the Building Regulations.

Building for Everyone: A Universal Design Approach has been used as a guideline for both external and internal environment design.

All main entrances to buildings will be fully accessible, including their approach.

The design of the public realm is based on the *Design Manual for Urban Roads and Streets (DMURS)* standards. As noted previously, priority is given to pedestrian use of the space.

All access routes will be well lit and surfaced with firm and reasonably smooth materials having the appropriate slip resistance. Drainage gratings will be flush with the surrounding surface. The footpaths will be sufficiently wide to accommodate all users, from students with bicycles, to parents with buggies, to the elderly.

Adequate dishing at kerbs and safe pedestrian crossing areas, will be provided at all junctions around the site. Tactile paving surfaces will be used where necessary.

The site landscape design includes public benches to provide resting spaces for the public. Routes within the buildings are kept simple and legible for residents of all ages and abilities. Lighting and signage will be designed to enhance the environment for all users.

All guarding and handrails will be fully compliant with Part M of the building regulations, where relevant, on access ramps.

Entrances to all buildings will be accessible. They will be easily identifiable, with level landings of 1800 mm x 1800 mm immediately in front.

The main access road is flanked by a bicycle lane and pavement each side from the school entrance to Academy Street. All are gradually sloped at 1:20 to ensure ease of use for all.

The woodland path, alongside the access road, provides a 1:20 gently sloped route through the woods. Steps are provided, shortening the looped path, to accommodate ambulant disabled movement.

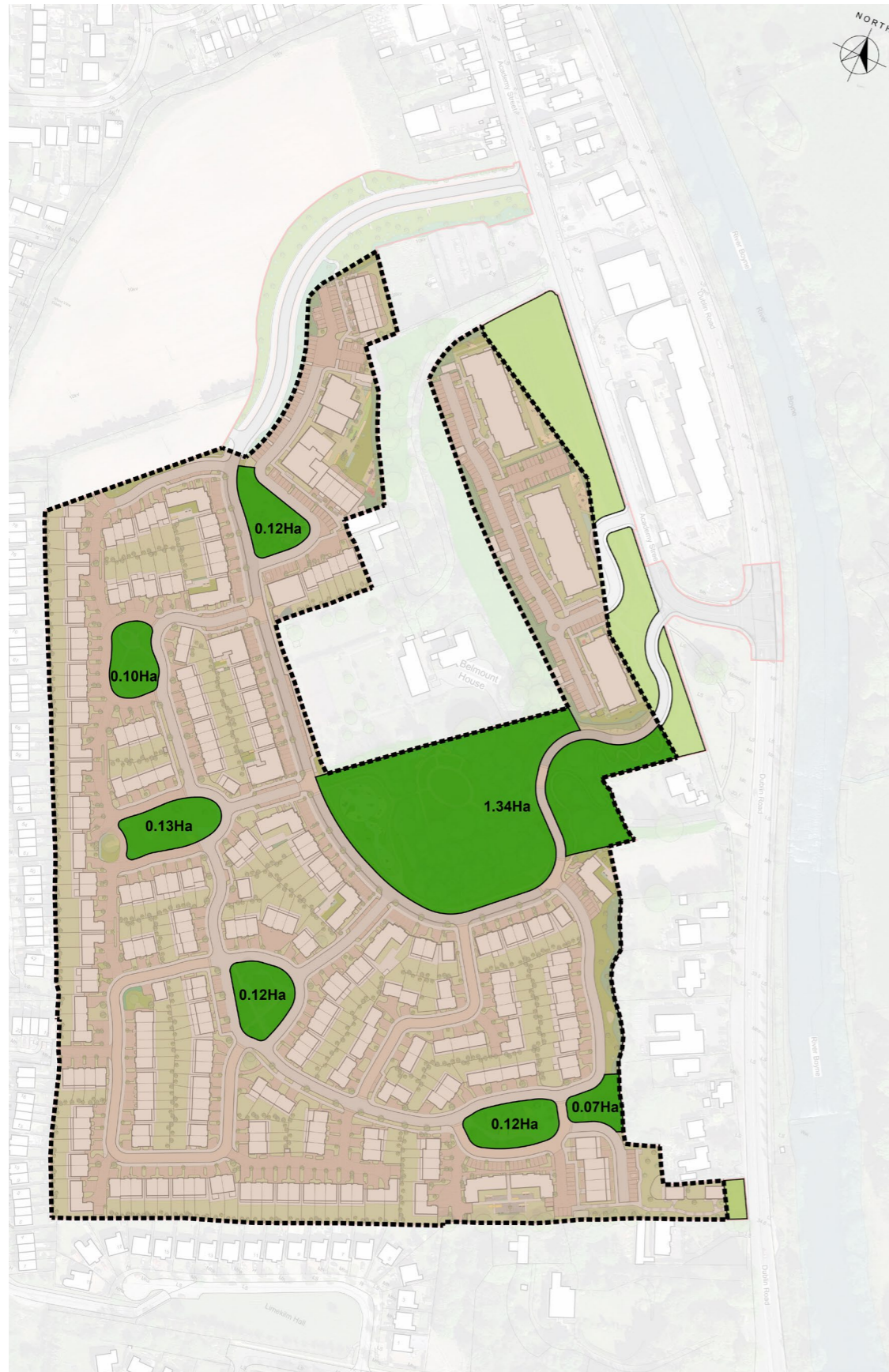
Given the existing steeply sloping topography at this point and the desire to retain as many trees as possible (preserving the historic setting of Belmont House), the proposed woodland access road itself is sloped at 1:12. The design team has spent considerable time resolving what is believed to be the best case scenario.

Alternative options, that were ultimately abandoned due to adverse impact on the existing stand of trees, may be found in appendix 1 of the Landscape Architects Report.

Additional pedestrian access (stepped) directly down to the bus stop on the R147.



7.0 LANDSCAPE AND PUBLIC OPEN SPACE



7.1 Landscape character and receiving environment

Please refer to Cunnane Stratton Reynolds Landscape Design Statement which firstly provides an appraisal of the existing landscape, trees, views, boundaries and adjoining Belmont House, and secondly outlines the landscape strategy and rationale for the design of green infrastructure, open space hierarchy and boundary treatments.

The landscape hierarchy reflects the urban design hierarchy of the scheme, both overlaying to form a legible and pleasant place to live.

7.2 Open space quantum

The open space requirement in Meath Development plan is for 15% of the residential land within the application site to be open space. This area excludes the open space zoned land along Academy Street, the school site, and the northern portion of the access road, which is from Academy Street to the school.

Residential areas for POS calculation: 13.35Ha

15% requirement is 2.0Ha

POS provided within residentially zoned lands is: **2.0Ha**

Note: There is an additional 0.65Ha POS provided on lands zoned for POS along Academy Street. This gives a total provided POS of: **2.65 Ha**



8.0 DWELLING DESIGN

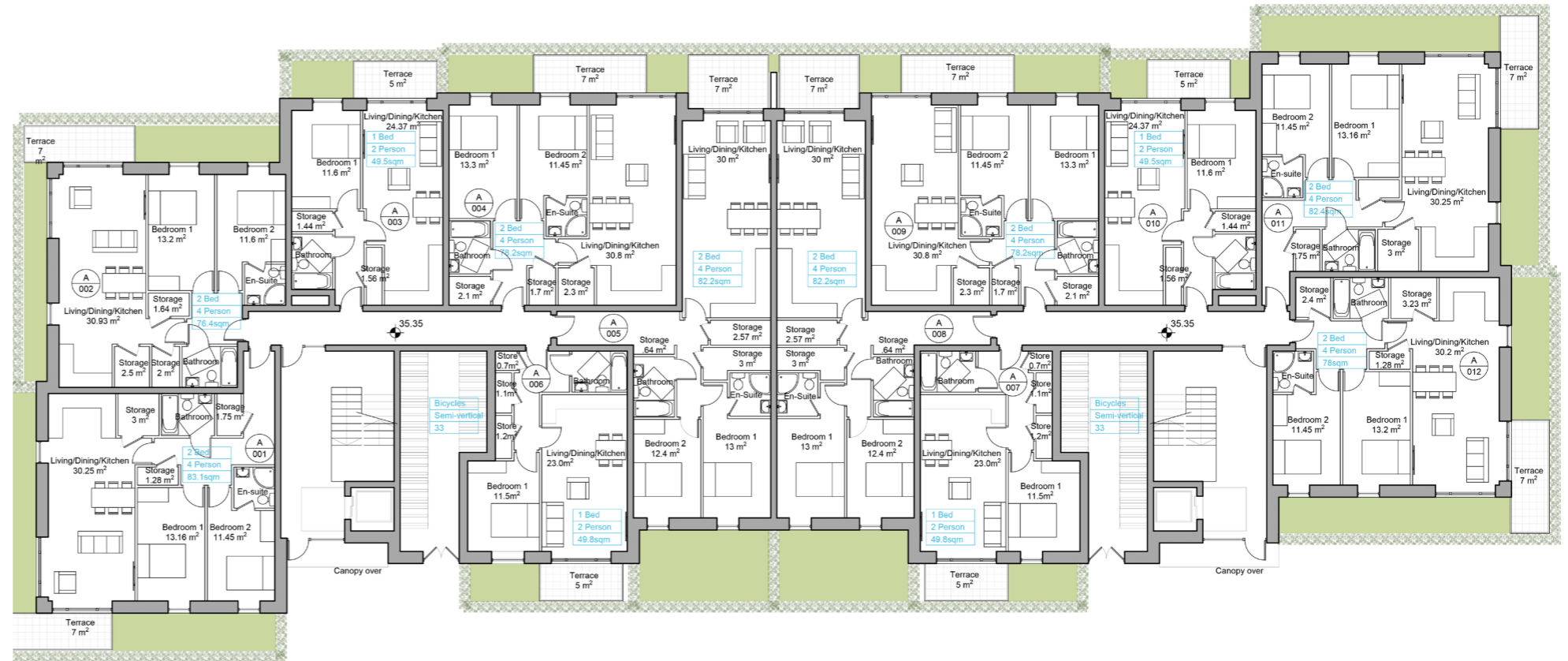
The distinctiveness of the Belmont development is its consistent design approach and palette of materials.

Brick houses with discrete render parts make recognisable traditional streetscapes, while varying use of elements such as double-height bays, single-height bays and render/brick ratios allows variety in the street composition while retaining its familiarity.

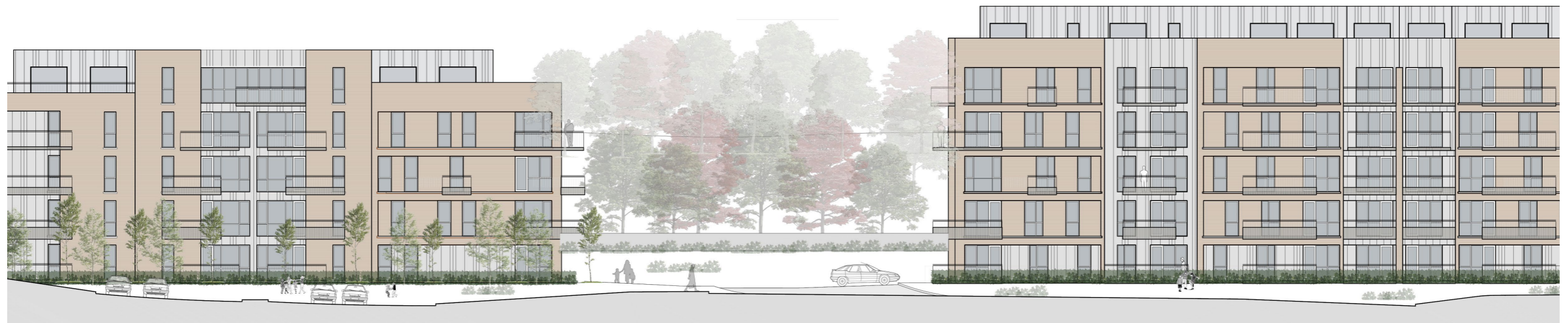
Corners are turned with double fronted houses and many houses have recessed porches, which allow for the discreet placement of electricity meters and whose brick arches evoke the familiar language of traditional houses.

8.1 Apartments

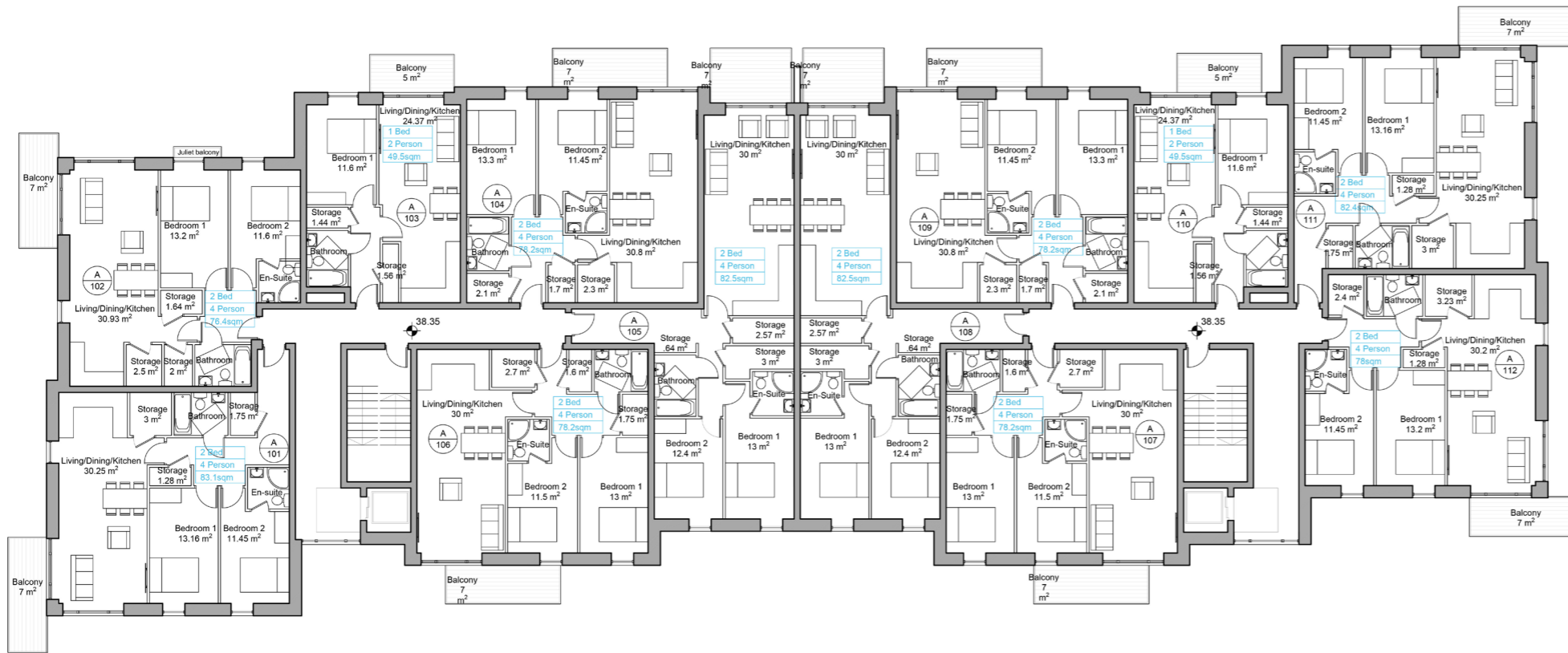
The apartment design of the blocks to Academy street has been informed by the distinct nature of the woodland on the embankment with its numerous mature trees. A base of metal cladding rises vertically to book-end brick apartments, highlighted individually with stack bonding, while the metal cladding and balcony balustrades have random vertical profiles.



Above: Academy Street, typical Ground Floor Apartment Plan



Above: Contextual Elevation of Apartments with Embankment and Mature Planting Rising Behind



Above: Academy Street, Typical Upper Floor Apartment Plan

As part of an urban gateway sequence into Navan, the apartments are scaled and detailed accordingly. The design and massing of the apartments emerges from the context.

The application site is a transition between the river context of the Boyne and the urban street section of the town.

The apartments makes the transition with a linear park edged by four and five storey plus penthouse apartments, providing an urban edge to the development.

There is an escarpment with mature trees parallel and the open space to the front forms part of the public realm of Navan.

Below: Section through apartments to Academy Street demonstrating the change in level from the apartments, through the woodlands, and into the smaller scale housing.



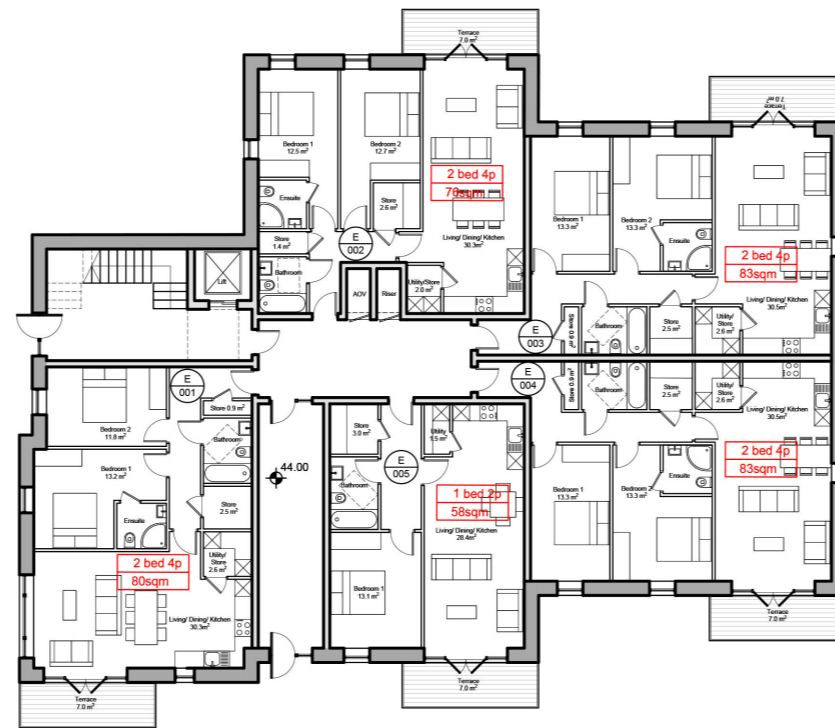
8.1 Apartments

School hill is the nearest part of the site to the town of Navan itself. Consequently it is comprised of a dense mix of apartments, duplexes, and houses.

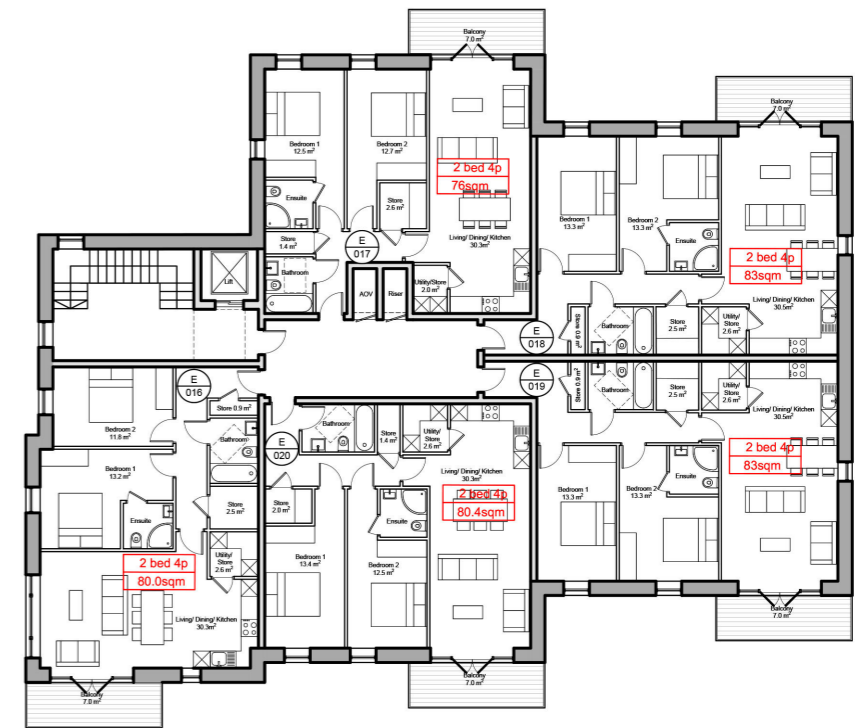
After the apartments to Academy street (the largest in the scheme, addressing its position as an urban edge), School Hill features the largest apartments in the development.

The apartment finishes take their cue from the Academy Street apartments, but the brick will be a soft red and render elements take the place of metal cladding, which will tie in with the finish to the houses along the length of Belmont Avenue immediately to the south of School Hill.

Below: A typical section through the school hill area demonstrating the higher density and mix of this portion of the site, as necessitated by the proximity of the town



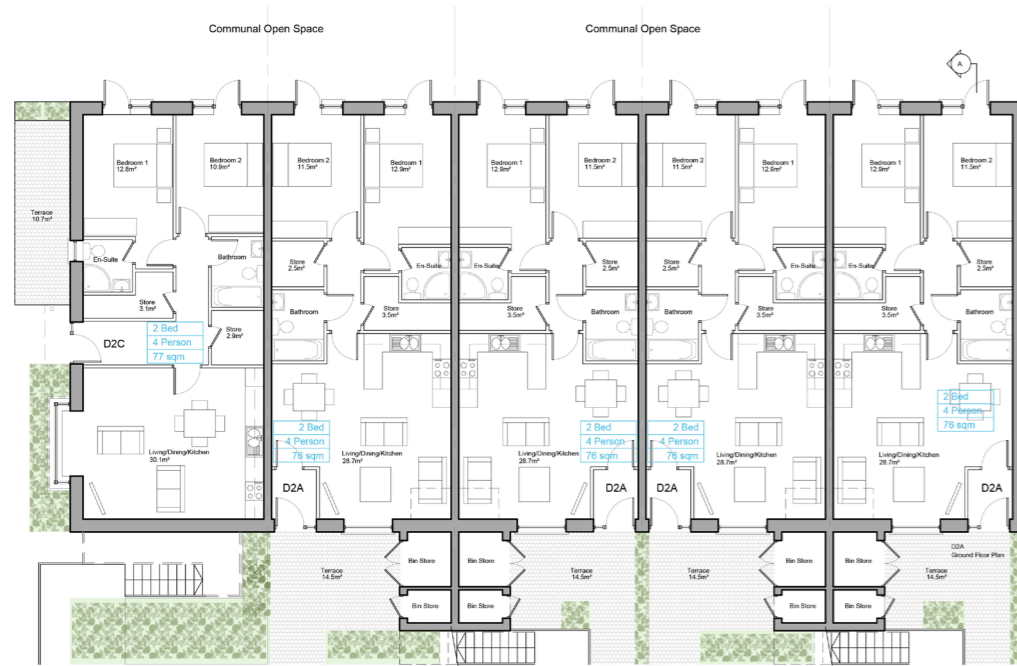
Above: School Hill, typical Ground Floor Apartment Plan



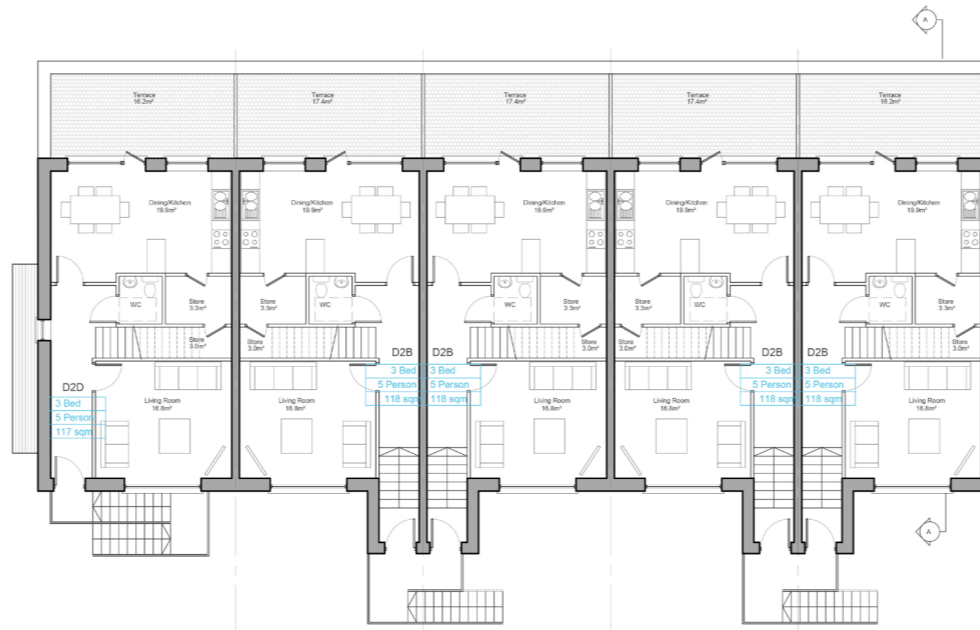
Above: School Hill, typical Upper Floor Apartment Plan



Above: School Hill, Contiguous Elevation of Apartments and Duplexes



Above: Typical Ground Floor Duplex Plan
See Below on opposite page for Contiguous elevation



Above: Typical Upper Floor Duplex Plan
See Below on opposite page for Contiguous elevation

8.2 Duplex Units

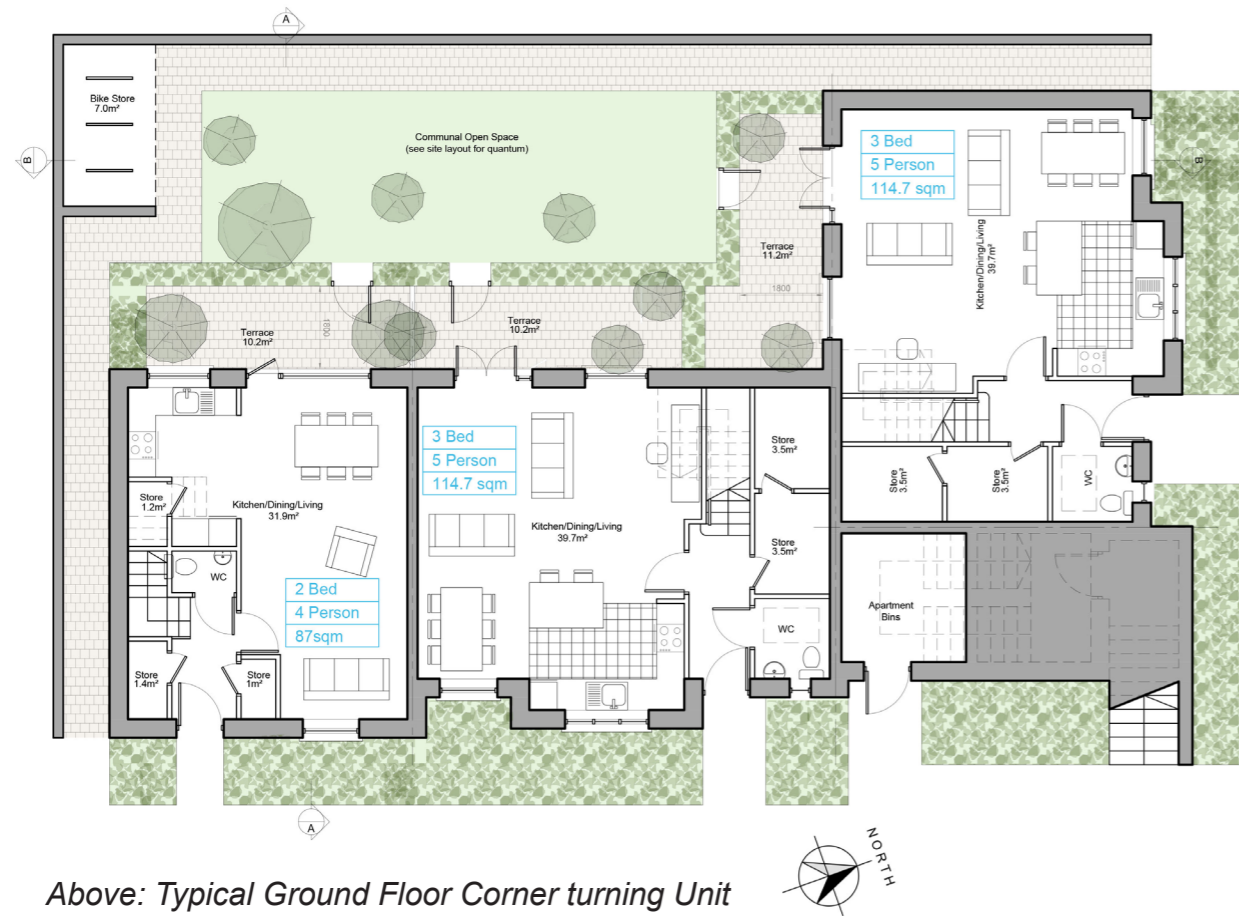
Duplex units are introduced within the scheme to mark entrances into individual character areas as well as providing increased density. In conjunction with corner turning duplexes along Belmont Avenue (the principal internal route of the scheme) these three storey units act as wayfinders to indicate more important connections and corners.



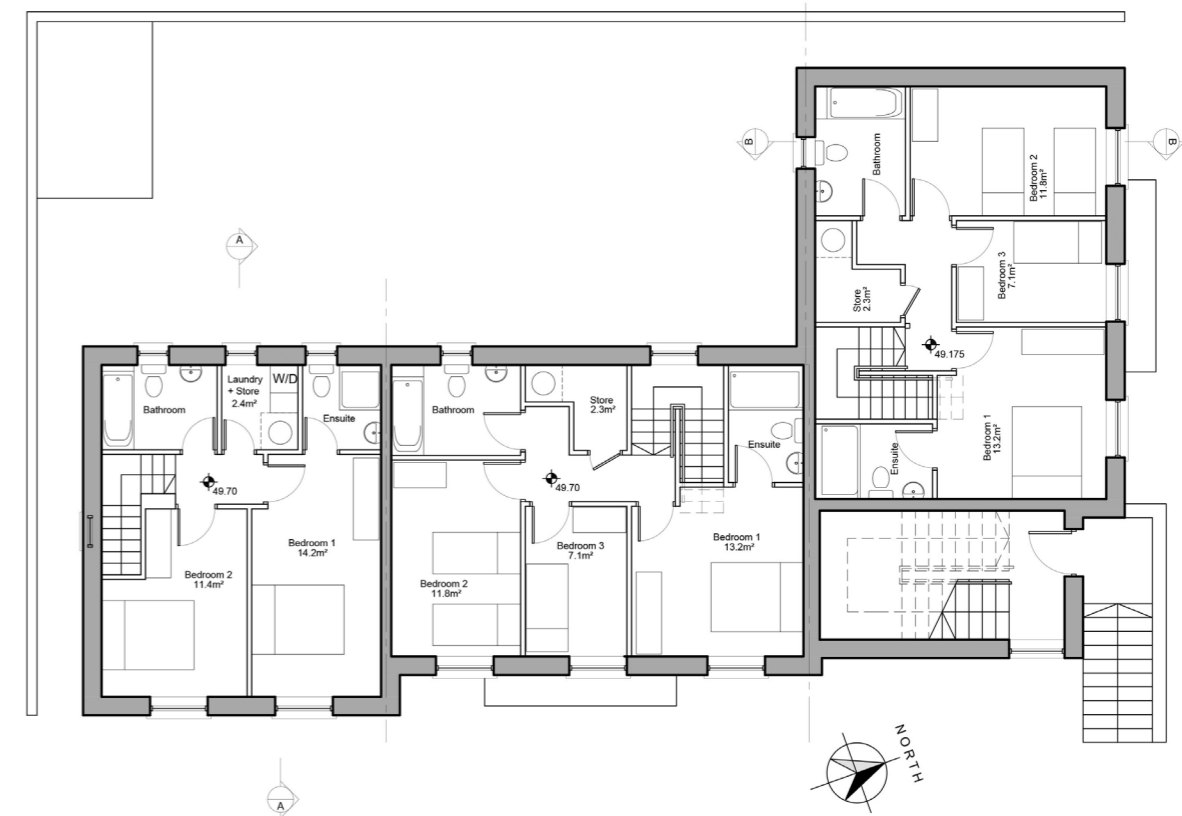
Above: Contiguous Elevation Continued from Opposite

8.3 Corner Turning Units

Corner turning units are introduced at strategic points throughout the site to aid wayfinding. The site slopes quite gently resulting in many instances where the corner turning units have to step at varying levels in order to accommodate the rise and fall of the site.



Above: Typical Ground Floor Corner turning Unit



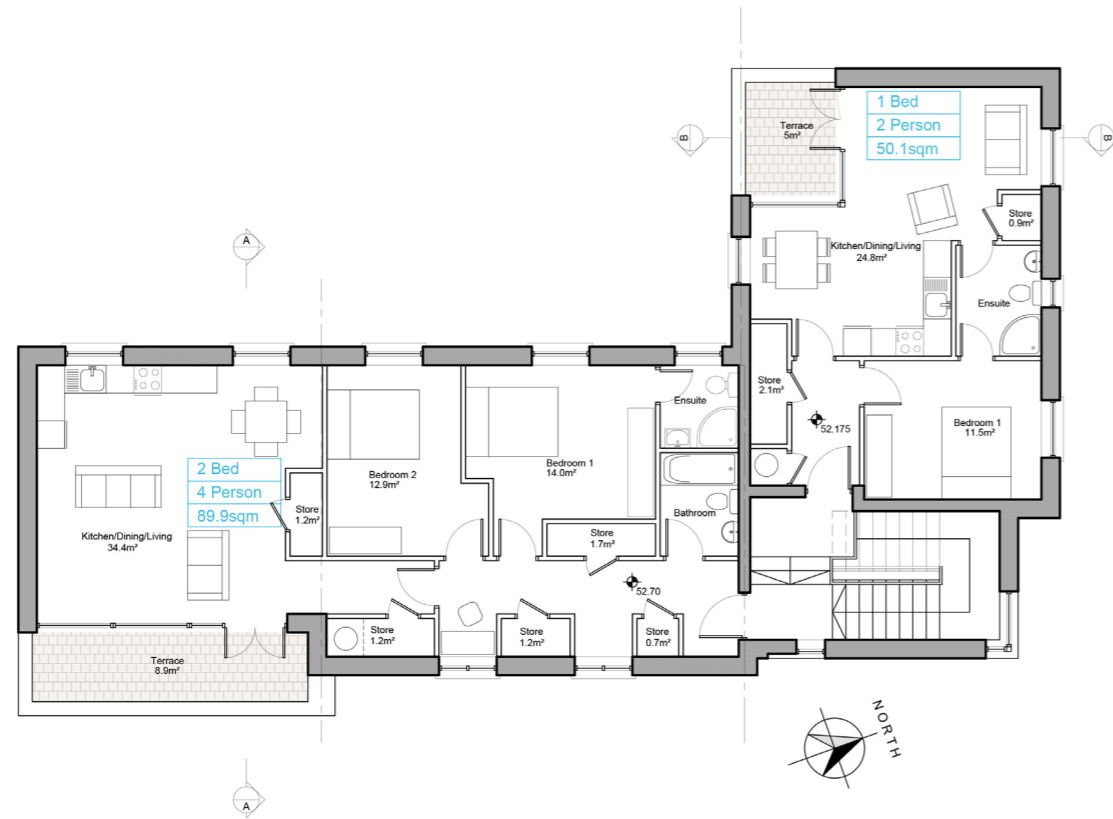
Above: Typical First Floor Corner turning Unit



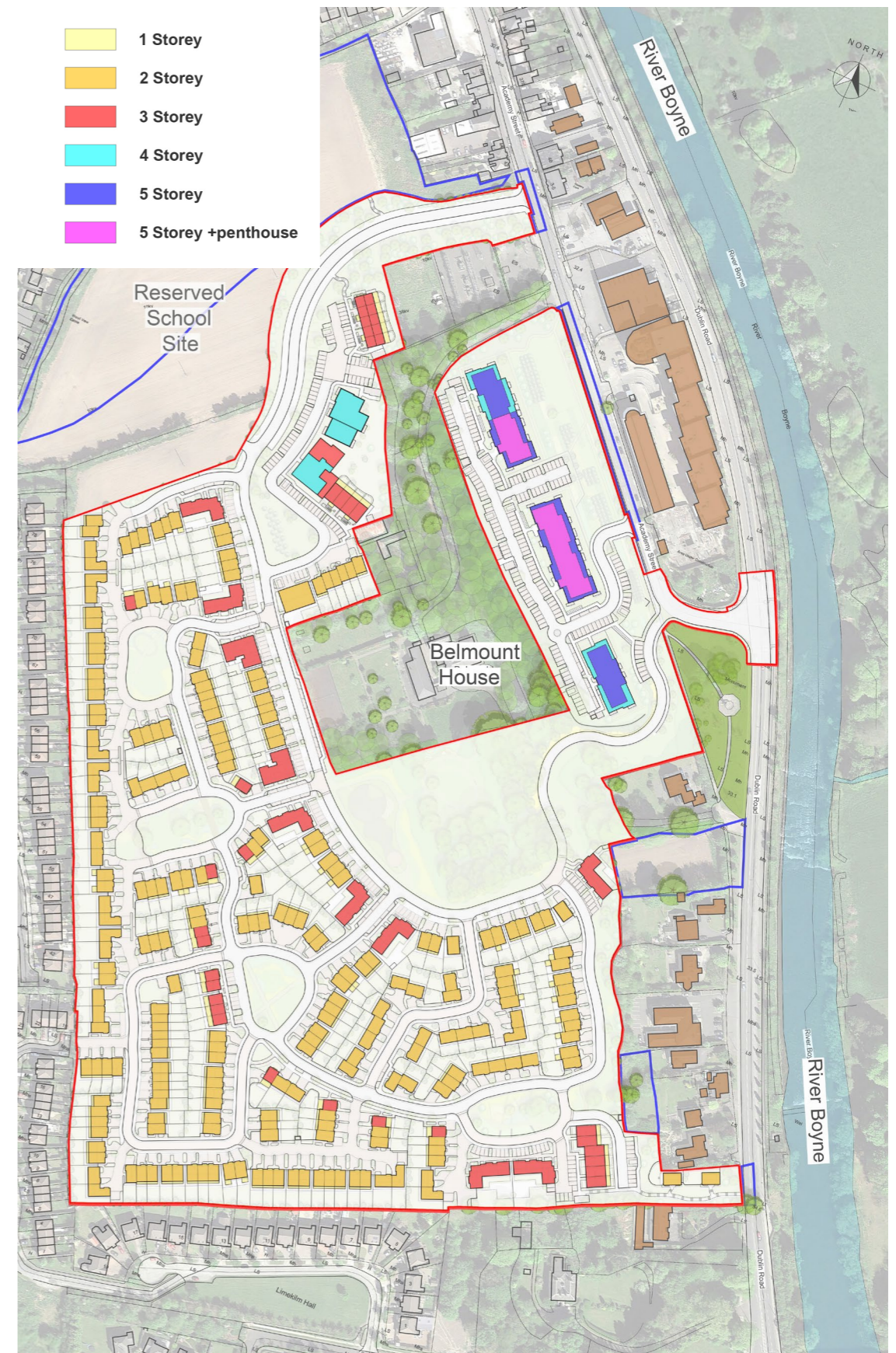
Above & Continued Opposite: Duplex Units announcing entrance to character area off Belmont avenue

8.3 Corner Turning Units

Right: Site Layout overlaid with height map. The taller duplex and corner turning units can easily be identified along the spine route and at key junctions.



Above: Typical Second Floor Corner turning Unit

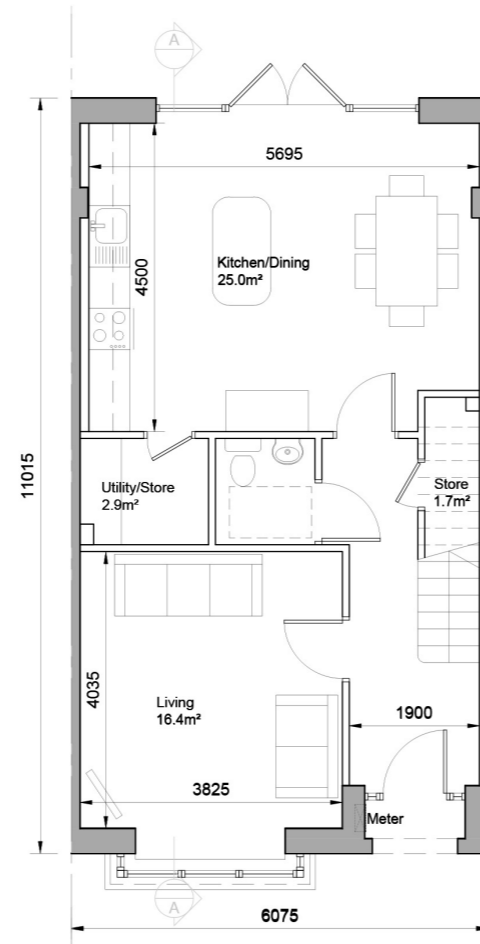


8.4 Houses

In contrast to the urban edge of academy street the interior of the site features a Sylvan context adjacent to Belmont house bounded by a tree lined avenue/ spine route off of which the interior character areas are accessed.

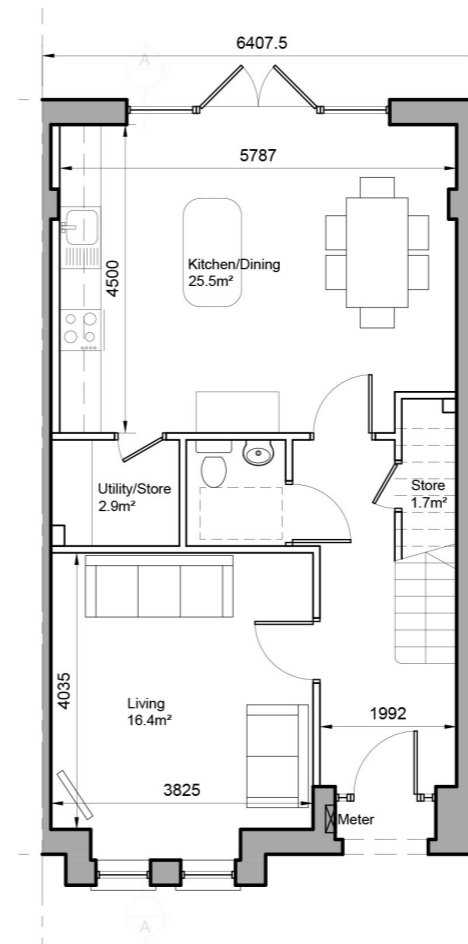
Density steps down at the southern end of the site and although higher buildings are interspersed at strategic locations the units in this area are predominately two storey houses.

There are 14 different housetypes proposed, which range from 2 to 4-bed and from 2 to 3-storey, in detached, semi-detached and terraced form. House designs include narrow-fronted units, double-fronted units, tall units, short units, L-shaped units and corner units with two street faces. In addition to variety of shape, other measures to add diversity include selective application of rendered elements viz. brick, the use of double-height bays, single-height bays and flush or recessed front doors.



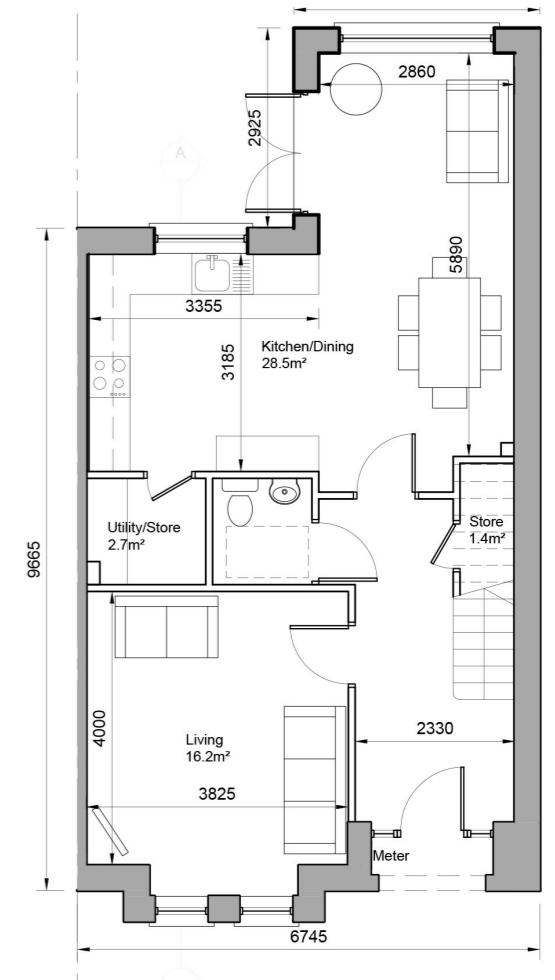
Ground Floor
59.5sqm
Total Floor Area 111.5m²

Above: House type N1



Ground Floor
60.5sqm
Total Floor Area 114.3m²

Above: House type N2

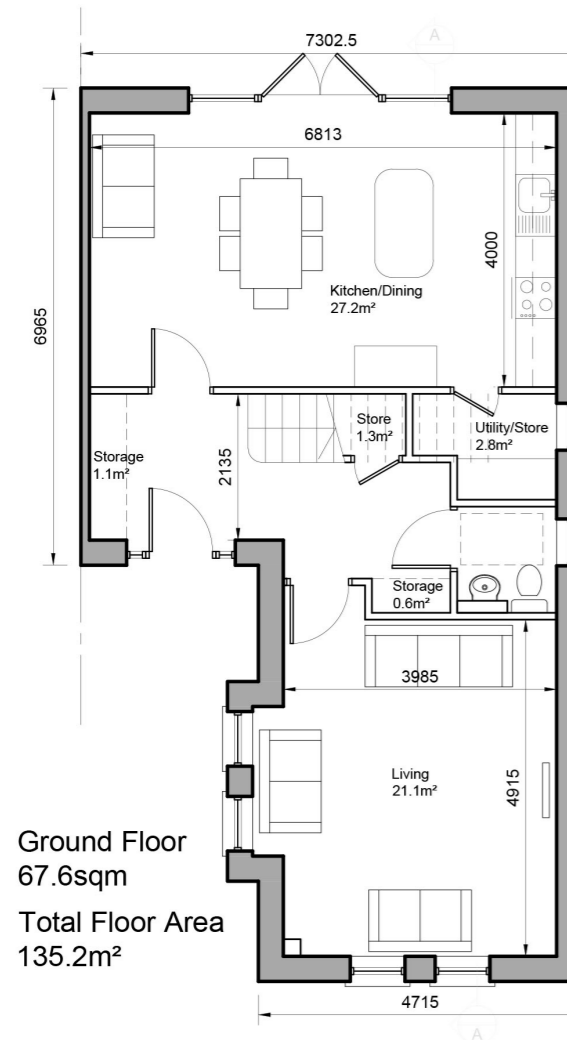


Ground Floor
63.7sqm
Total Floor Area 120.5m²

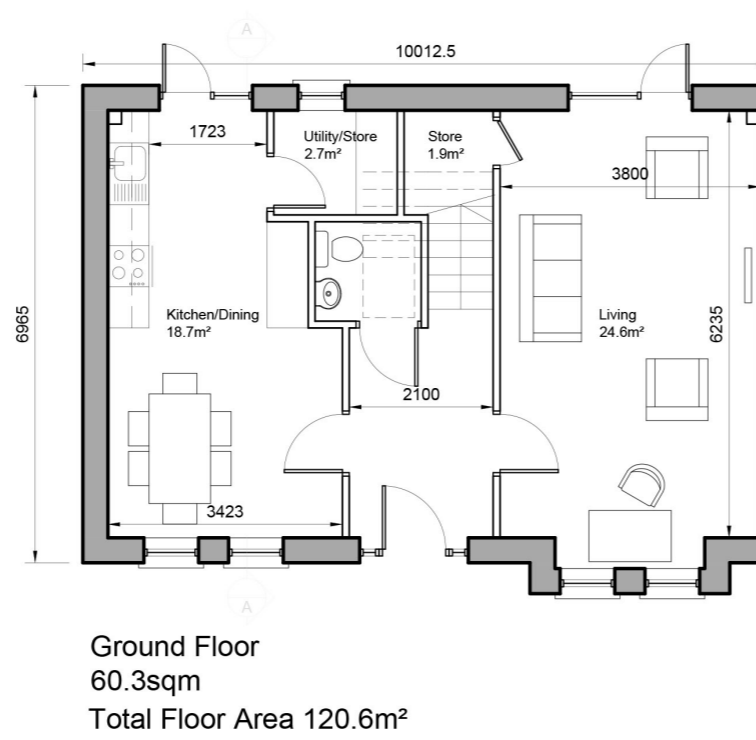
Above: House type N3



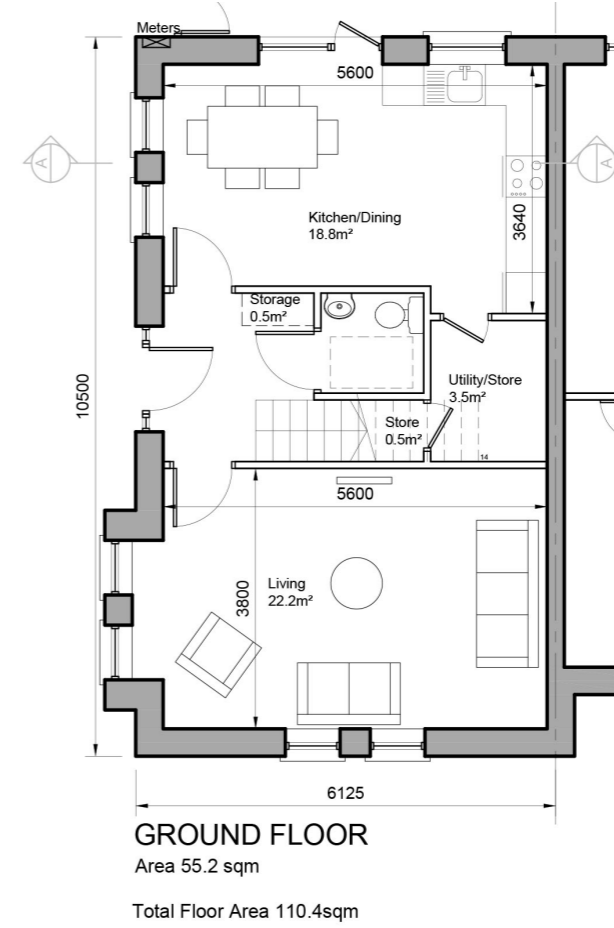
Above: Contextual Elevation of House types



Above: House type L1



Above: House type N5



Above: House type E2



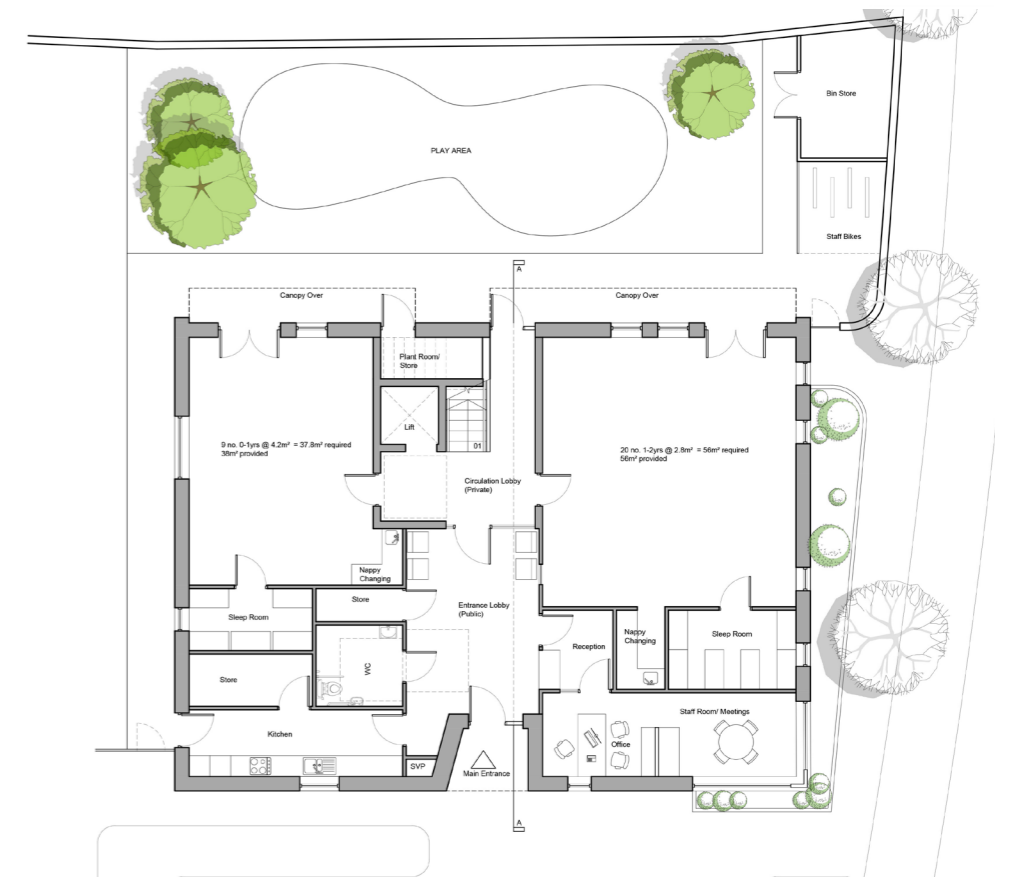
Housetype N2 Housetype N1 Housetype N2 Housetype N2 Housetype N2 Housetype N5 Housetype L1 Housetype L1 Housetype N5 Housetype N2 Housetype N2

9.0 CHILDCARE FACILITIES

Two crèches are provided within the scheme, one on the main loop route and close to the school, and the other on Academy Street in the base of one of the apartment blocks, providing for 89 and 41 children respectively.



NORTH ELEVATION (FRONT)

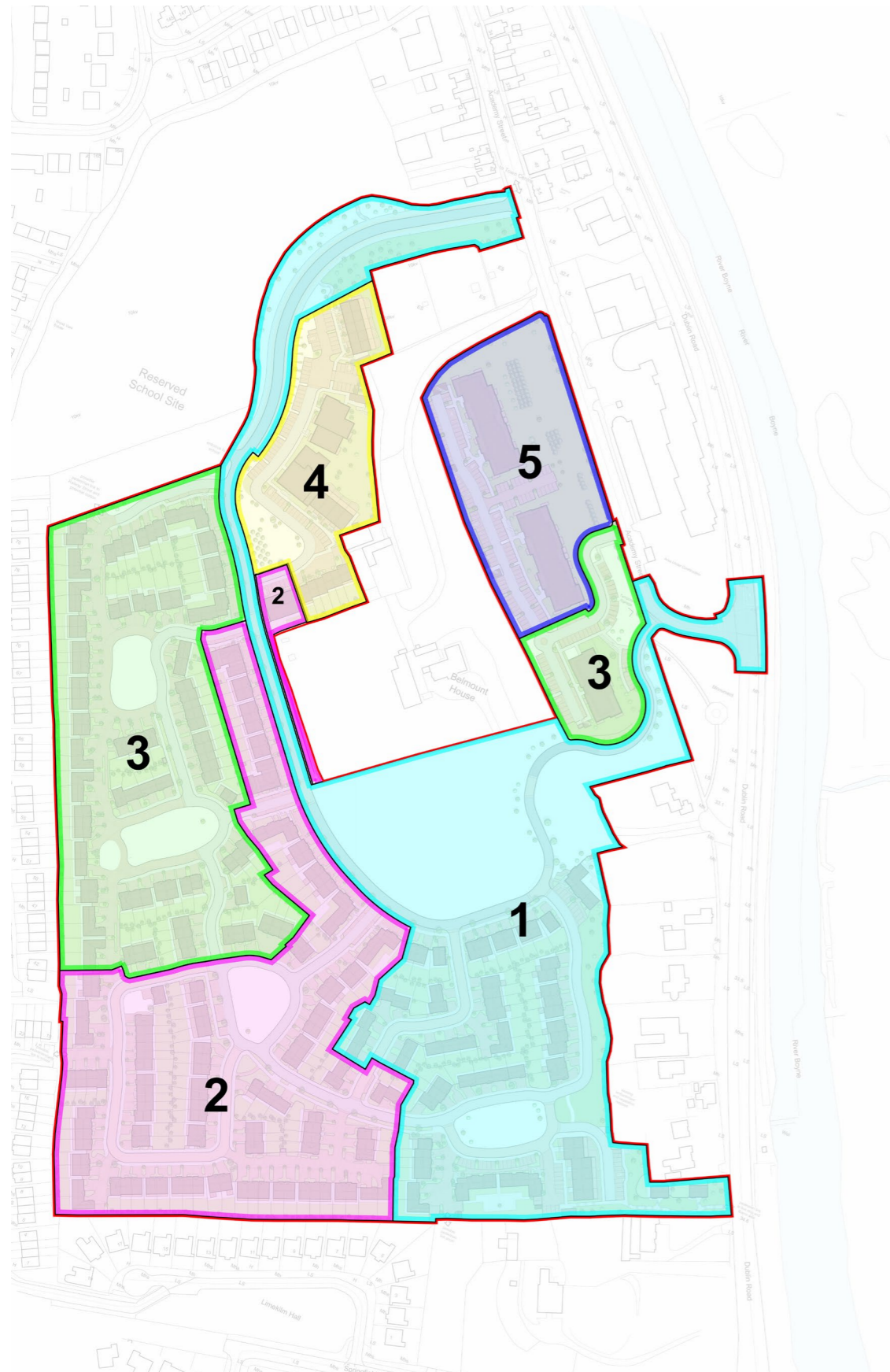


EAST ELEVATION (SIDE)



WEST ELEVATION (STREET)

10.0 PHASING



Phase 1

Duplex Apartments:
 6 x 2 bed garden apartments
 6 x 3 bed duplex apartments

Corner Blocks:
 (3 no. 5 units blocks):
 1 bed - 3
 2 bed - 6
 3 bed - 6

Houses:
 E2 (3 bed) - 3
 F1 (4 bed) - 1
 L1 (4 bed) - 2
 N1 (3 bed) - 6
 N2 (3 bed) - 8
 N4 (3 bed) - 10
 N5 (3 bed) - 17
 N7 (2 bed) - 1
 N8 (4 bed) - 4
 N8A (4 bed) - 1

3 x 1 bed units
 13 x 2 bed units
 56 x 3 bed units
 8 x 4 bed units

80 Units Total

Phase 2

Corner Blocks:
 (3 no. 5 units blocks
 and 2 no. 8 units
 blocks):

1 bed - 11
 2 bed - 14
 3 bed - 6

Houses:
 E2 (3 bed) - 12
 F1 (4 bed) - 4
 F2 (4 bed) - 1
 F3 (4 bed) - 3
 N1 (3 bed) - 17
 N2 (3 bed) - 40
 N3 (3 bed) - 4
 N4 (3 bed) - 6
 N5 (3 bed) - 9
 N7 (2 bed) - 9
 N8 (4 bed) - 1
 L1 (4 bed) - 2
 Creche

11 x 1 bed units
 23 x 2 bed units
 94 x 3 bed units
 11 x 4 bed units

139 Units Total

Phase 3

Aartments:
 15 x 1 bed apartments
 17 x 2 bed apartments

Corner Blocks:
 (2 no. 5 units blocks):
 1 bed - 2
 2 bed - 4
 3 bed - 4

Houses:
 E2 (3 bed) - 7
 F1 (4 bed) - 5
 F2 (4 bed) - 1
 L1 (4 bed) - 6
 N1 (3 bed) - 16
 N2 (3 bed) - 33
 N3 (3 bed) - 5
 N4 (3 bed) - 2
 N5 (3 bed) - 13
 N7 (2 bed) - 4
 N8 (4 bed) - 1

17 x 1 bed units
 25 x 2 bed units
 80 x 3 bed units
 13 x 4 bed units

135 Units Total

Phase 4

Apartments:
 8 x 1 bed apartments
 32 x 2 bed apartments

Duplex Apartments:
 9 x 2 bed garden apartments
 9 x 3 bed duplex apartments

Houses:
 N2 (3 bed) - 2
 N7 (2 bed) - 4

8 x 1 bed units
 45 x 2 bed units
 11 x 3 bed units

64 Units Total

Phase 5

Aartments:
 23 x 1 bed apartments
 103 x 2 bed apartments

126 apartments total
126 Units Total

Left: Proposed phasing plan for the development.