Architectural Design Statement

to accompany Part 8 Planning Application to Dublin City Council

Social Housing Bundle 3 - Housing at East Wall Road, Dublin

Report No. SHB3-BAL-AR-COA-RP003, September 2021
Contents

1.0 Introduction and Executive Summary Page 3
2.0 Site Context Page 4
3.0 Overall Site Planning Approach Page 9
4.0 Site Design Approach Page 10
5.0 Urban Design Rationale/Design Criteria Page 14
6.0 Schedule of Accommodation Page 23
7.0 Housing Quality Assessment Page 24
8.0 Energy Efficiency Strategy Page 27
9.0 Landscape Design Strategy Page 28
This report has been prepared by Seán Harrington Architects to describe the architectural design of the proposed development, which has been developed in collaboration with the multi-disciplinary project team. The report is part of an application for planning permission by Dublin City Council (DCC), for a residential development of 68 residential units at East Wall Road, Dublin to Dublin City Council Planning Authority, under Part 8 of the Planning and Development Regulations 2001 (as amended).
2.0 Site Context

2.1 Brief

The design brief for this site is for the development of 68 residential units. The brief mix as advised by Dublin City Council (DCC) is as follows:

Apartments
- 17no. 1 bed 2 person apartments (approx. 25%)
- 28no. 2 bed 4 person apartments (approx. 42%)
- 23no. 3 bed 5 person apartments (approx. 34%)

For apartments, space standards are to be as set out in the Sustainable Urban Housing - Design Standards for New Apartments 2018, Guidelines for Planning Authorities, with 10% of apartments to the National Disability Authorities’ Universal Design Standards.

2.2 Site Description

The proposed development site of c. 0.63 ha is located c. 1.5 km north of Dublin City Centre. The North Strand Fire Station (site area c. 0.30 ha) abuts the proposed development site to the west. The site’s principal frontage is to its north onto East Wall Road and faces the Tolka River. The east and south of the site are bounded by the rear gardens of 1& 2 storey housing to Hope Avenue and Leinster Avenue respectively. There is an existing vehicular entrance from East Wall Road.

The site avails of excellent transport connectivity being located close to the North Strand, a high frequency bus corridor. A bus stop is located at the Fire Station, approx. 100m west of the proposed development site. The site also avails of excellent cycle links, owing to its proximity to the North Strand and to the new cycleway connecting the North Strand to the Docklands, which runs along East Wall Road.

A district centre is located across from North Strand, at the intersection with Poplar Row. The Ballybough Community Centre is located less than 450m west of the site. A number of supermarkets are located further east on East Wall Road, just over 500m away from the site.
2.3 Site Context

The design brief anticipates that the adjacent Fire Station site, lands of which are also in DCC ownership, will be re-developed in due course. In order to ensure orderly development across both sites, the brief requires consideration of the layout for both sites (combined area c0.93Ha.) The purpose is to identify the most suitable development proposal on the proposed site to fulfil the brief, whilst also demonstrating viable future development potential of the adjacent site. It is anticipated that the boundary between both sites may be reconfigured, and that part of any lands within the proposed site not required for delivery of the brief will be developed as part of the adjacent site in due course.

Also within this report, we have used the following terminology to differentiate between the various sites and stages of development:

- The ‘proposed development site’ is site for which this Part 8 application applies. This has a maximum size of circa 0.63Ha, but is anticipated that some of this site will be transferred to the Fire Station site for completion of the ‘adjacent site’ in due course.
- The ‘overall site’ is the composite circa 0.93Ha site, formed as a combination of the proposed development site and the adjacent Fire Station site.
- The ‘adjacent site’ is the site currently occupied by the Fire Station, for which an overall site planning approach is included as per Section 3.0 of this report. This has a minimum size of circa 0.30Ha, but is anticipated that some of the ‘proposed development site’ will be transferred to the Fire Station site for completion of the ‘adjacent site’ in due course.

The development proposal which is the subject of this Part 8 has been designed so as not to prejudice the development potential of the adjoining Fire Station. Any development on that site, will be subject to full design and relevant statutory procedures. The contextual analysis provided in this report is for information purposes only purely to illustrate that the adjoining Fire Station site can be developed in a certain form, although ultimately a different form may be selected.
2.4 Site Constraints

The overall site development constraints are guided by the DCC CDP 2016-2022, and also a briefing document from DCC Planning Department with specific requirements for this site. Although full details of planning requirements are further clarified in the accompanying Planning Statement, headline items are noted below:

- **Site Zoning**: Lands are zoned Z4 ‘To provide for and improve mixed-services facilities’. Residential is a normally permissible use.
- **Density**: DCC Planning Department have indicated an overall site density of c. 140 – 150 uph.
- **Plot Ratio**: Indicative 2.0 for lands zoned Z4.
- **Site Coverage**: Indicative 80% for lands zoned Z4.
- **Building Height**: Heights of 2-6 stories are deemed to be appropriate for this site.
- **Parking**: The site is located in Zone 3 (1.5 spaces per dwelling), but in close proximity to Zone 2, where lower parking standards apply. The transportation brief provided by DCC states that if deviation in parking provision is proposed, a rationale shall be provided setting out reasons for such.
- **Cycle Parking**: 1 per unit (Additional requirements for visitor parking will be decided on a case-by-case basis).
- **Community**: It is a DCC Development Plan requirement (SN5) to provide a Community & Social Audit for all developments of over 50 units.
- **Roads & Transport**: The site avails of excellent transport connectivity being located close to the North Strand, a high frequency bus corridor. A bus stop is located at the Fire Station. DCC have suggested a site entrance close to current location.
- **Typologies**: Apartments primarily, duplexes to courtyard are permissible.
- **Flood risk**: The site is in an area of flood risk, and proposed levels have been confirmed by means of a flood risk analysis.
- **Commercial space**: 650m2 space to be provided for within the overall planned site.

In addition to the CDP constraints, the following site constraints will need to be considered within any development proposal:

- Develop a proposal for the overall site to achieve the density targets across both sites.
- Establishing whether the full 0.63 ha proposed development site area is necessary for the delivery of the accommodation brief, and whether any land may be allocated for development with the adjacent Fire Station site in due course.
- Developing an appropriate urban form to East Wall Road, that addresses the opposing scale of 2-storey housing to the east and potential 6-7 storey urban corner to the west.
- As the site will be on a raised podium for flood prevention, addressing Part M access to the development.
- As the site will feature little or no community or commercial facilities, apartments will occupy the ground floor. Adequate privacy, daylight, and high-quality amenity must be maintained.
- Provision of adequate communal open space that is well overlooked, and is not significantly overshadowed.
- Cycle and refuse storage to be similarly overlooked and immediately accessible to all residents.
- Ensuring a reasonable provision of on-site parking, that does not negatively affect the quality of the communal open space.
- Limiting overlooking and maintaining privacy of existing dwellings to eastern and southern boundaries.
2.5 Site Analysis

The principal frontage to the proposed development site is to East Wall Road to the north, with the River Tolka immediately opposite, and Fairview Park just north of the Tolka. For the extent of the site frontage, East Wall Road is reasonably narrow, with a single vehicular carriageway in each direction, and modest pavements each side. Existing vehicular access is provided midway along the frontage to the proposed development site, and this is deemed the most suitable location for any proposed access.

The principal frontage to the adjacent Fire Station site is to North Strand to the west, one of the key arterial routes into Dublin city centre. In addition, the northern edge of the Fire Station site forms a distinct urban corner at the junction with East Wall Road, and is a strong landmark on the approach from Fairview and Annesley Bridge to the north.

To the east boundary, the rear gardens of dwellings on Hope Avenue back onto the site. The dwellings are 2-storey, terraced in nature, with quite shallow rear gardens. This will limit development potential along the eastern edge of the proposed development site, once privacy, overshadowing, and 22m back-to-back dimensions are considered.

To the south boundary, the rear gardens of dwellings on Leinster Avenue back onto the proposed development site. These are a mix of one-storey over basement and 2-storey terraced dwellings, with generous rear gardens. Whilst the 22m back-to-back dimension would be less onerous here for any proposed development along the site’s southern flank, there are possible privacy concerns as the existing levels within the proposed development site are approx. 2.5m higher than street level on Leinster Avenue.

Furthermore, the proposed development site is within a flood zone. A flood risk analysis has been completed, and the findings are included separately within this planning application. The recommendations are that the site is to be back-filled, to ensure a formation level for all dwellings of at least +4.15m. Whilst this is a modest increase relative to existing site levels of circa +3.5m, it means that accessibility from East Wall Road to the north will require careful consideration, and there is the potential for increased overlooking to existing neighbours on Hope Avenue and Leinster Avenue. Careful consideration should therefore be given to any buildings of height with windows that overlook existing housing to the south.

To the west of the proposed development site, at the Poplar Row/ North Strand/ East Wall Road junction, 2-no. 6-storey residential developments have recently received planning approval and are currently under construction, with planning approval under consideration for a third site at this junction. The intensity of taller buildings at this notable junction forms an appropriate marker or landmark, and it would be deemed equally appropriate that buildings of similar height should be proposed on the north-west corner of the overall site.

In contrast, the context immediately east of the proposed development site along East Wall Road is 2-storey residential, at an entrance level approx. 0.8-1m below formation level of the proposed site. Furthermore, existing dwellings on North Strand, just south of Leinster Avenue are similarly 2-storey. Any proposed development of the overall site will need to deliver suitable urban form, height and density, particularly along North Strand, and to much of the frontage along East Wall Road, whilst also being respectful to existing adjacent low-rise housing to the south and east of the site.

The site frontage along East Wall Road is approximately north-east in orientation. However, if we assume that the proposed building line is to be parallel to the road edge, the orientation is technically north facing, at approx. 42.5 degrees east of due north. In order to ensure that there are no strictly north-facing units, the design of apartments along this edge must be carefully considered.
2.6 Materials Analysis

The palette of materials in the wider local context is wide and varied, partly as a reflection on the layers of development over time. As a short summary, a breakdown of typology examples are included below:

- Late 1800s housing off North Strand Road to the south, south-west and north-west is typically finished in red brick, with fibre cement slate roofs. A smaller proportion of this housing is of render finish, painted in various colours.
- Housing from the 1930s – 1950s, to the east of the site, is of render finish, painted in various colours, with fibre cement slate roofing.
- The apartment building on the north side of Poplar Row, by Herbert Simms, is a mix of painted render finish, with contrasting red brick finish to projecting bays and the ground floor plinth. The contrasting materials have been used as a means of articulating the various building elements.
- Various office development on East Wall Road, to the east of the site from the 2000s, are finished in a variety of light-coloured concrete panelling, buff coloured brick cladding, and stone or concrete detailing. Dark-coloured curtain wall glazing is also a dominant feature.
- Retail developments from the 2010s further east along East Wall Road are finished in a variety of light and dark grey-coloured stone cladding in one instance, and yellow-brown coloured stone cladding in another. Both examples feature extensive dark-coloured curtain walling.

In terms of notable similar recent precedents within the immediate locality, the following two examples at Poplar Row are currently under construction:

Application reference 3601/18 at No.87 North Strand Road/ Poplar Row junction. This development is for a 6-storey apartment building, with a ground floor retail unit to North Strand. The proposed finishes are red brick generally, with zinc cladding to the sixth-floor roof setback. A charcoal grey brick is proposed at ground floor along Poplar Row. Balconies are finished in vertical metal railings.

Application reference 3900/18 at No.3 Poplar Row. This development is for a 6-storey apartment building, with ground floor community rooms fronting the street. The development proposal is informed by the Herbert Simms apartment building immediately opposite, with a similar language of textured red-brick to the recessed planes, and render with off-white mineral paint to the projecting bays. This building has a similar language of ramps and steps integrated within the building plinth, to resolve access issues imposed by flood risk. Balconies are proposed in solid fibre-cement panelling.

There are no obvious contextual references that would strongly influence the choice of materials for the proposed development. However, the Herbert Simms Housing and the project under construction at No. 3 Poplar Row are a useful reference in terms of the use of contrasting materials for building expression. Appropriate material selection and composition for the proposed development has been explained in detail in Section 5.12 of this report.
As noted in Section 2.4, an aspect of the brief for this project is to test the development potential of both the proposed development site, and the adjacent site occupied by the Fire station. This is to ensure that proposals of suitable urban design quality and density can be delivered across both sites, and that the ultimate proposal included within this planning application does not compromise the development potential of the adjacent site.

Leading from the Project Brief, the Site Constraints and Site Analysis, the first design move is to define a strong urban frontage to both North Strand and East Wall Road. To achieve this, it is proposed that a largely continuous building block will follow the street edge from the junction with North Strand/Leinster Avenue at the south-western site corner, to the north-east corner of the site adjacent to 24 East Wall Road. The overall block is to be divided into a series of separate buildings, each with its own access core, serving typically 5-6 apartments per floor.

As a transition between the 2-storey context at the site’s south-west and north-east corners, a mannered increase in building height is proposed, building up to a 6-7 storey corner at the North Strand/East Wall Road junction. Proposed steps in building height may coincide with access core locations, to accommodate general access and to assist in the articulation of building form.

The continuous ribbon of buildings to the street edge allow for the creation of a semi-private courtyard behind the building line, shielded from activity outside the site. The site is relatively deep in a north-south direction, providing ample opportunity for communal open space and, communal facilities, with some car parking provision.

The courtyard space is not sufficiently large to allow for the development of further large apartment blocks, without undermining the quality of the courtyard space or the quality of amenity of neighbouring residents. However, there is opportunity within the courtyard for possible mews buildings of 3-storey height, as a transition between the taller main buildings along the East Wall Road frontage, and the lower scale neighbours to the east and south. This is possible without undermining the amenity of neighbouring residents or undermining the quality of the courtyard.

The requirement for 650m² commercial space as noted in the brief is modest, relative to the brief for residential development, and also relative to the overall ground floor footprint of the overall site frontage. The optimum location for the retail space is along North Strand Road, or to the North Strand/East Wall Road corner, as these locations will have the highest levels of passing trade and prominence, for commercial viability.

Any remaining ground floor frontage will be utilised either as access to circulation cores, or as frontage to ground floor apartments. Whilst apartments above ground floor may feature private open space that overlooks the street, this would not typically provide sufficient privacy and quality for ground floor apartments. It is proposed that all ground floor apartments are to be own door access, dual aspect apartments, with private open space facing onto the courtyard.

The requirement to raise the finished floor level of all apartments to a minimum of +4.15m, for flood prevention reasons, means that ground floor apartments on East Wall Road will be approx. 0.9m above road level. Whilst this means that level access will be more difficult to achieve, it does allow the opportunity for increased privacy to ground floor apartments.

At the south-west corner of the overall site, the level change between ground floor apartments and street will be greater than at East Wall Road, at approx. 2.2-2.5m. Such a level change introduces potential for a communal open space podium to the adjacent site at approx. +4.15m, with below podium car-parking. Commercial space occupying the ground floor frontage to North Strand, with access at street level, will provide a suitable urban edge at this location, minimising need for own door apartments here.

The inclusion of separate communal open spaces, separate car-parking provision, and also the inclusion of a mews terrace within the rear courtyard will help to inform the split of the overall site planning into 2 or more parcels of development, which is an essential aspect of this brief. This will allow for the eastern portion of the site to be developed in the short term, which will ensure that the Fire Station can remain operational on the adjacent site until such times as this site is also developed. The potential implementation of development on the overall site is described in more details in Section 4.1 below.

Based on the massing strategy proposed here, the following is a schedule of approximate planning metrics for the overall site proposal:

- Site coverage: Approx 40%
- Plot ratio: Approx 2.0
- Density: Approx 172 uph, based on total of approx 160 apartments and site area of c0.93Ha
4.1 Overall Implementation

Leading from the development of an overall site design, we have identified a clear strategy for the delivery of the development brief on the proposed land, whilst maximising the development potential of both the proposed development site and the adjacent Fire Station site. The proposal included here is a full stand-alone proposal irrespective of possible future development of the adjacent fire station site.

Along the East Wall Road frontage, the development of 2no. connected buildings, each with a separate access core, will provide the majority of the brief accommodation. A courtyard will be developed immediately behind, contained by the rear boundaries of properties on Hope Avenue and Leinster Avenue. Access to this courtyard for vehicular traffic and pedestrians will be via a break between the proposed buildings on East Wall Road, which will otherwise be connected at upper levels. A small terrace of duplex dwellings will provide additional dwellings to fulfil the brief, and will help to define the western site boundary.

It is proposed that the boundary between the proposed development site and the adjacent fire Station site will be rationalised, with the transfer of some lands from the former to the latter. This is to ensure orderly development of both sites, with lands not required for the delivery of the brief on the proposed development site aiding the development potential of the adjacent site. Once the red line has been adjusted for the proposed development site to reflect all works on East Wall Road, the definitive site area for planning purposes is 0.55Ha.

Strategically, the development of the site as proposed will ensure that

- The development proposals are restricted to a defined part of the site, aiding buildability and minimising Health and Safety Risk
- The remaining site is of sufficient scale to allow for a separate, self-contained development in due course, whilst allowing for the continued operation of the existing Fire station in the interim.
4.2 Composition of Main building to East Wall Road

The primary frontage to East Wall Road is parallel to the street, and is technically north facing, at approx. 42.5 degrees east of due north. On upper floors, a repeating language of projecting bays forms the frontage to both 2 bed and 3 bed apartments, with the larger window on each floor denoting the Living space to each apartment. Each of these apartments are corner aspect, by means of a deep, approx. 3.5m recess in the façade, typically coincident with lifts shafts. Adjacent circulation cores are recessed approx. 2m relative to apartments, which provides for a semi-recessed, private balcony for each apartment, coincident with lift cores. All such apartments and their associated balconies to this façade are therefore both north and east facing. The separate articulation of lift shafts also allows for a more gradual height transition at stairwells.

At street level, the ground floor frontage follows the alignment of the circulation cores at upper levels, which is recessed approx. 2m relative to projecting bays of upper floors. This allows for the provision of both sufficient circulation space to cores at ground floor, and also for a protected front curtilage to ground-floor own-door apartments. The extent of the ground floor curtilage is defined by the alignment of the projecting bays above, which are supported by columns on the curtilage boundary.

Immediately outside the curtilage and primary façade line, an access ramp and step arrangement is integrated within the building plinth, providing Part M access to own door apartments and common cores. Outside of this, a continuous row of trees provides some greenery to the street, and helps to create a soft buffer to traffic on East Wall Road. This tree line is set approx. 3.2m off the projecting façade elements, and approx. 2m from the East Wall Road kerb edge. A minimum 1.8m wide pavement is provided outside of the tree line, which allows for compliant sight splays at the vehicular site entrance. However, the pavement width between trees is considerably more generous, at typically 4m wide, allowing for space to pass or gather.

Building height ranges from 3-4 stories at the east of the site, rising to 6 stories at the western boundary, with a measured increase in height from east to west. A 7-storey corner is possible at the North Strand corner for the overall site. Whilst the majority of the building is a minimum of 4-stories in height, the eastern end has been broken down to form a 3-storey interface with adjacent 2-storey dwellings on East Wall Road. This arrangement also helps resolve potential overlooking from balconies at this location.

Storey heights have been established to provide good natural daylight, and also to comply with the apartment design guidelines. They have been set at 2.7m for both ground floor apartments, and minimum 2.6m for upper floor apartments.
4.3 Composition of Duplex terrace

As the duplexes are located within the courtyard, the architecture and form is relatively simple compared with the East Wall Road facade. The form is driven by the spatial requirements of the 3BSP units at ground and first floor, with duplexes arranged in 2 pairs of 2.

To provide efficient access to the second floor 1B2P apartments, an external stair is proposed, shared between pairs of apartments, and providing access to separate front doors at first floor level. This stair has been semi-recessed into the façade depth of the 3BSP duplexes, and the remaining projecting element creates an efficient repetitive structure that provides support for the second-floor balcony over. The recessed nature of the stair ensures that the curtilage depth can be minimised, to the benefit of communal open space. The limited projection of the stair also ensures that passive surveillance from ground floor apartments is not compromised. All of this has been achieved with negligible impact on internal floor area targets for the 3BSP unit.

Storey heights have been established to provide good natural daylight, and have been set at 2.7m to ground floor living spaces within the 3BSP duplexes, 2.6m to first floor bedrooms etc. to the 3BSP duplex apartments, and 2.6m to second floor level 1B2P duplex apartments.
4.4 Public Realm

In addition to the public realm to the street edge as noted in Section 4.2 above, a communal courtyard is formed between the rear facade of the main building, the frontage of the duplex terrace, and the rear gardens to adjacent dwellings on Hope Avenue and Leinster Avenue. The courtyard is accessed via a double height passageway midway along the frontage of the main building, providing access for vehicular traffic and pedestrians.

Private terraces to the ground floor apartments within the main building open onto this courtyard, with deep planting zones provided as a buffer between these private terraces and otherwise public spaces. To the duplex terrace, the courtyard gives access to front curtilages, where some buffer planting is included to ensure reasonable privacy to ground floor living spaces at these locations.

The primary feature of the courtyard is a generous communal open space, with mixed use facilities that are described further in Section 9.0 of this report. The communal open space is located within close proximity of the ground floor apartments, the duplex terrace, and the common cores. The space is divided into 2 parts, with through access to the carpark further south.

A large secure cycle store is provided to the western boundary, at the northern edge of the duplex terrace. This is designed with a perforate outer façade, and it’s location allows for significant passive surveillance from surrounding ground floor and upper floor apartments. A small area of visitor’s cycle parking is provided within the communal open space, on entrance to the courtyard. All cycle parking facilities are to feature Sheffield stands, and the proposals allow sufficient space for the setting out of such parking.

Car parking is provided along the southern boundary, with parking for 34no. cars. A large turning head to the centre of the parking area provides for fire tender turning, and also enables access to the ESB substations and switch rooms at this location.

Bin stores are accommodated close to both the cycle storage area and the car park. This provides for ease of access by residents as they leave the building, for disposal of waste and recycling. Bin stores are screened and otherwise open to the air, with planting buffers to shield the binstores from adjacent open space and apartment amenity space.
The design rationale outlined below identifies the key issues considered during the design process for the proposed residential scheme on the site under the 12 criteria set out in the Urban Design Manual – A Best Practice Guide 2009.

5.1   Context

Considerations:

- The development seems to have evolved naturally as part of its surroundings
- Appropriate increases in density respect the form of buildings and landscape around the site’s edges and the amenity enjoyed by neighbouring users
- Form, architecture and landscaping have been informed by the development’s place and time
- The development positively contributes to the character and identity of the neighbourhood
- Appropriate responses are made to the nature of specific boundary conditions

The site has a former industrial use, and the street edge is currently defined by defensive railings and hedges. The existing boundary condition is inactive, and previous functions have never really engaged with the street. The proposed new development serves to address this shortcoming, as the frontage to East Wall Road establishes a strong urban edge, animated by front doors and overlooked by balconies and apartments over. It follows best practice guidance for such urban renewal in this regard.

To ensure a sustainable development density for this key urban site, the target design densities are considerably in excess of the 2-storey dwelling landscape immediately adjacent. To address a potentially significant difference in scale at the site boundary interface, a mannered increase in height is proposed from east to west along East Wall Road. 3&4-storey buildings are proposed adjacent the existing 2-storey dwelling at No. 24 East Wall Road, rising to 6 stories at the western boundary. Care has been taken to ensure that properties to the east of the site are not significantly overshadowed by the proposed development, and that their gardens are not directly overlooked by balconies or living spaces in close proximity.

The main building along the East Wall Road site frontage is sufficiently set back from the site’s southern boundary, so as not to affect the amenity of existing dwellings on Leinster Avenue further south. A terrace of duplex dwellings has been included within the courtyard, and is of a modest 3-storey height. This terrace serves as a transition scale between the taller main apartment building and existing 2-storey dwellings to the east and south. This duplex terrace has been arranged so that balconies and living spaces do not overlook the private realm of neighbouring properties.

The design language and finishes used are simple and contemporary. The street façade to East Wall Road is ordered and repetitive, with projecting bays on upper floors forming the frontage to both 2 bed and 3 bed apartments. The projecting bays are finished in a red buff coloured clay brick, to give an appropriate colour, and also some brightness to this predominantly north facing façade. Adjacent recessed façade elements are proposed in a darker brown multi clay brick, to offer some visual contrast, and to help with the articulation and understanding of the building form. Further contrasting materials are included at main entrances and to ground floor curtilages, to give visual interest and legibility.

The proposed development serves to make a positive contribution to the existing neighbourhood. The completion of the development will establish a model for the development of the adjacent site to the west. The activation of this site will also ensure that existing dwellings on Hope Avenue and Leinster Avenue no longer back on to unused former industrial lands, providing greater security to the rear of their properties.

The site does not include any significant vegetation. New soft landscaping will be provided to streets, private curtilages, communal space with the sheltered housing building, and to the POS, as described in Section 9.0.
5.2 Connections

Considerations:

- The layout links to existing movement routes and the places people will want to get to
- Appropriate density, dependent on location, helps support efficient public transport

The development site is a modest urban infill site, with established communities on all sides. The exception to this is the Fire Station site immediately to the west, and the opportunities for this site have been explored in Section 3.0 above. Otherwise, there are no opportunities for connectivity through the site.

However, the site is located in close proximity to existing urban centres at Fairview to the north, and to Dublin city centre further south. Linking both of those locations is North Strand Road, a primary arterial route into the city that is well served by public transport, and includes a bus stop approx. 100m west of the development site.

As a result of its urban location and strong transport links, Dublin City Council have set a brief density for the overall site of 140-150uph. From the Overall Site Planning Approach in Section 3.0 above, approx. 172uph is possible across both sites, with 135uph achieved for this standalone site. The slightly lesser density on this development site is due to the pursuance of a mannered reduction in height adjacent to existing 2-storey dwellings, to benefit contextual integration, and also the amenity of adjacent residents.

5.3 Inclusivity

Considerations:

- New homes meet the aspirations of a range of people and households
- Design and layout enable easy access by all
- There is a range of public, communal and/or private amenity spaces and facilities for children of different ages, parents and the elderly
- Areas defined as public open space that have either been taken in charge or privately managed will be clearly defined, accessible and open to all.
- New buildings present a positive aspect to passers-by avoiding unnecessary physical and visual barriers

The proposed brief has been developed by Dublin City Council, based on their records of housing needs within the locality. A summary breakdown is included in Section 2.1 above. The brief includes that a minimum of 10% of the 68no. apartments (taken as 7no. minimum) are to be designed to Universal Design standards.

The proposed apartment building to East Wall Road accommodates 60no. of the 68no. total apartments. A mix of 1bed, 2bed and 3bed apartments are provided on each floor, with typically repetitive layouts on each floor. Apartments are located around a common core, with typically 6 apartments per floor per core, and with 2 cores in total. On each floor, there is a mix of single aspect south facing apartments, north-east corner aspect apartments, and north-south dual aspect apartments. This allows for a wide variety of apartment types throughout the development, which will suit a wide variety of household types.

At ground floor, the layout of the apartment building does not repeat from upper floors. As an optimal urban design response, all apartments to the East Wall Road frontage are to be own-door and dual-aspect. It is proposed that all UD apartments are to be located at ground floor, in a mix of 1bed and 3bed sizes. This ground floor location ensures ease of access from the street, generous external private terrace areas facing the courtyard, and flexibility in layout relative to the repetitive layouts of general needs apartments to levels above.
For the duplex block, 2-storey 3bed apartments are provided at ground and first floor, with access at ground level. These are arranged as a traditional maisonette, with living spaces at ground floor, and bedrooms to first floor. At second floor level, a series of 1bed apartments are accessed by means of own door entrances at first floor level. An external stair from ground floor to first floor, common to 2no apartment in each case, provides access to these own door entrances.

The UD apartments have been designed to provide for a broad spectrum of particular needs. This includes increased space standards within living spaces, a potential connection between the main bedroom and primary bathroom, and larger room sizes throughout.

The flood risk analysis for the site deems that the lowest finished floor level for all ground floor apartments is to be +4.15m. In order to make the wider site optimally accessible, it is proposed that the entire site is to be raised to approximately this level. At the street frontage, an access ramp and steps have been sensitively integrated into the architectural language of the building plinth, providing access to both the common cores and to ground floor UD apartments. The vehicular and pedestrian link from street to courtyard is also gently sloped, and there is no requirement for any other steps or ramps within the site.

The public realm is welcoming, with open and inviting public space, but well defined and enclosed front curtilages and private rear gardens and terraces. The communal open space has been designed with facilities for a wide range of interests and abilities, to ensure that it is attractive to a broad spectrum of residents.

To activate the street edge, all ground floor apartments and common cores feature front doors to the street, leading from the top of the access ramps and steps. There is good passive surveillance of both the street and the communal courtyard, particularly from upper level apartments.

5.4 Variety

Considerations:
- Activities generated by the development contribute to the quality of life in its locality
- Uses that attract the most people are in the most accessible places
- Neighbouring uses and activities are compatible with each other
- Housing types and tenure add to the choice available in the area

A social infrastructure audit has been completed for the site, which has concluded that all necessary facilities are available within both the immediate and wider area. In terms of the non-residential amenities included within the development, a communal open space is centrally located, featuring a range of activities serving various interests.

For this development, it is not anticipated that a community room for the exclusive use of residents will be required. However, it would be possible to convert one or more ground floor apartments to a community room in due course, should the need arise. A small room of approximately 20m² has been provided at ground floor level within the main building, with independent access to the East Wall Road frontage. This room is proposed as a possible caretaker’s office.

A good mix of tenure types are proposed within the development, ranging from 1bed to 3bed apartments, some of which are to UD standards. This will help to develop a mixed community, with the anticipation that larger apartments will be occupied by families.
5.5 Efficiency

Considerations:

- The proposal looks at the potential of higher density, taking into account appropriate accessibility by public transport and the objectives of good design.
- Landscaped areas are designed to provide amenity and biodiversity, protecting buildings and spaces from the elements and incorporating sustainable urban drainage systems.
- Buildings, gardens and public spaces are laid out to exploit the best solar orientation.
- The scheme brings a redundant building or derelict site back into productive use.
- Appropriate recycling facilities are provided.

The proposed site density is informed by the Dublin City Council planning brief for this site. This identifies an anticipated site density of 140-150uph to demonstrate efficient land use. The current proposals achieve a density of 135uph for the development site, but this rises to 172uph once the overall site planning approach for the adjacent Fire Station lands is considered.

As noted in Section 5.2, whilst permeability through this urban infill site is not possible, it is well connected to the wider city. North Strand Road, west of the site, is a primary arterial route into Dublin city centre. There is frequent public transport along this route, with the nearest bus stop within 100m of the site frontage. SUDS principles have been applied to control rainwater run-off from the site. These range from engineered storm attenuation systems, swales within the courtyard, to the inclusion of sedum roofing that will also enhance biodiversity.

It is proposed that combustibles will not be used for space heating or hot water generation. Instead, centralised air source heat pumps will deliver heat and hot water, with a large extent of operational energy coming from renewable electricity. At this site, there is potential for the centralised heating plant to be decommissioned in future, to be replaced with a connection to the proposed Dublin district heating network, allowing waste energy from the Dublin Waste to Energy facility. A generous provision of infrastructure will also be provided for charging of electric vehicles, and all parking spaces will be ducted to allow for the easy addition of further charging infrastructure in the future.

Apartments have been designed with modest plan depths, generous window sizes and dual aspect to the majority of units, to benefit daylight and reduce energy consumption from artificial lighting. A full daylight analysis has been completed for all apartments and is included with this submission. In addition, daylight and sunlight to open space has been considered, and also with respect to overshadowing of adjacent dwellings. Adjacent to the eastern site boundary, care has been taken to minimise roof verge heights, to ensure that neighbouring properties to the east of the development are not adversely overshadowed.

Bin storage and recycling facilities have been allowed for within the communal courtyard. These are located in areas where they are readily accessible for residents as they exit the building, whilst still ensuring that bin stores are adequately screened so as not to be a visual nuisance to adjacent apartments.

Above: Level +2 Plan, with layouts typical across floors from Level +1 to Level +5
5.6 Distinctiveness

Considerations:
- The place has recognisable features so that people can describe where they live and form an emotional attachment to the place
- The scheme is a positive addition to the identity of the locality
- The layout makes the most of the opportunities presented by existing buildings, landform and ecological features to create a memorable layout
- The proposal successfully exploits views into and out of the site
- There is a discernable focal point to the scheme, or the proposals reinforce the role of an existing centre

The proposed development aims to be much more engaging with the street, in comparison with the former industrial usage. Due to the challenges of providing sufficient privacy to balconies, whilst allowing for corner aspect to the majority of apartments, the façade to East Wall Road is very particular to its location. A repetitive order of projecting bays helps to establish a rhythm to the façade, but these step in height from east to west to provide a reasonable transition from the adjacent 2-storey context.

Deep recesses within the façade provide for a corner aspect to apartments along this façade, with balconies located within these recesses. The façade is further animated by large windows to Living Rooms, as distinct from smaller windows to bedrooms, with this order repeated across the façade. This ensures that each apartment can avail of views over the Rover Tolka towards Fairview Park further north, whilst also awaing of sunlight from the east.

At ground floor level, main entrance cores are finished in contrasting materials, and denoted by a generous projecting canopy. A line of street trees for the width of the site frontage also provides welcome greenery to this part of East Wall Road.

The development proposes high-quality urban infill on a key urban site, whilst also being sensitive to the amenity of adjacent residents. This should help to ensure that the proposed development will fit in as a good neighbour.

5.7 Layout

Considerations:
- Layout aligns routes with desire lines to create a permeable interconnected series of routes that are easy and logical to navigate around.
- The layout focuses activity on the streets by creating active frontages with front doors directly serving the street.
- The streets are designed as places instead of roads for cars, helping to create a hierarchy of space with less busy routes having surfaces shared by pedestrians, cyclists and drivers.
- Traffic speeds are controlled by design and layout rather than by speed humps.
- Block layout places some public spaces in front of building lines, and some semi-private space to the back as communal courts.

Public and private space are well defined, with clearly defined front curtilages to own-door ground floor apartments on East Wall Road. The inclusion of private curtilages and front doors helps to activate the ground-floor frontage, and assists in providing natural surveillance and overlooking of the street. Within the courtyard, private rear curtilages feature additional planted screening, to ensure sufficient privacy to private open space, and to differentiate between public and private realm.

Whilst access to the communal courtyard is possible to passers-by, there is no through route. As a result, the courtyard will likely only be accessed by visitors with a clear purpose. However, the approach to the courtyard, by means of the double height vehicular and pedestrian accessway can be clearly read from the street. Furthermore, from the street, clear views of the generous, south facing courtyard should make this approach appear inviting to visitors.

As the building is an urban infill development, with no through routes, any new streets are limited to access roads to the communal courtyard carparking. Shared surfaces are proposed throughout the courtyard, to assist with speed control, and horizontal deflection is also employed on the link road that runs the short length from the courtyard entrance to the carparking area. Cars are located at the southern end of the courtyard, with communal open space adjacent to duplexes and apartments. This will ensure that car parking and car movements have minimal effect on residents’ enjoyment of the courtyard’s amenity spaces.

Above: Balcony Detail within recess to East Wall Road elevation
5.8 Public Realm

Considerations:

- All public open space is overlooked by surrounding homes so that this amenity is owned by the residents and safe to use
- The public realm is considered as a usable integrated element in the design of the development.
- Children’s play areas are sited where they will be overlooked, safe and contribute to the amenities of the neighbourhood.
- There is a clear definition between public, semi-private, and private space.
- Roads and parking areas are considered as an integral landscaped element in the design of the public realm.

The main public space to this development is formed on the street side, with a layered development of tree planting, access ramps and steps, and private curtilages, as described in Section 4.2. The layered nature of this element of public realm, both in its depth from the street, and terraced nature from street level to entrance level ensures that there is a very clear definition of transition from public to private space. Ground floor curtilages are separate and distinct from the public realm, by means of a gate on the curtilage boundary. All public realm on the street side is well overlooked from both ground floor and upper levels. The inclusion of street trees and tree pits improves the public realm, and aids SUDs and biodiversity.

Within the courtyard, the public realm is of a semi-public nature, and is likely to only be experienced by residents or visitors to the site. Here, the double height accessway through the East Wall Road apartment building serves as a clear threshold, distinguishing between public and semi-public realms.

The communal open spaces within the courtyard provide for a mix of amenities, with a bench seat area, children’s play area, and some mown grass areas. A mix of trees and low-level planting are included, with dense planting for both visual interest and screening purposes. Swales have also been included within the landscaping, for biodiversity and SUDS gains. All amenities, including the children’s play area are centrally located, and well overlooked from apartments on all levels.

Car-parking spaces are located to the south of the courtyard. These are so located to ensure that parked cars are not an immediate nuisance to the amenity of residents as they exit the building. However, the car-parking areas can be overlooked for safety and security from all apartments at a reasonable distance. Trees and low planting also help to offer some controlled screening of car parking.

5.9 Adaptability

Considerations:

- Designs exploit good practice lessons, such as the knowledge that certain house types are proven to be ideal for adaptation.
- The homes are energy-efficient and equipped for challenges anticipated from a changing climate.

The building provides for a range of apartment types, ranging from 1 bed 2 person to 3 bed 5 person apartments. As the apartments are not for private sale, and are to be rented to residents of DCC’s housing list, this gives some flexibility should a resident have changing needs and wish to be relocated within the same community. 7no. Ground floor apartments to the main building have been designed to Universal Design Standards. This will allow for more flexibility for longer term changing needs of those residents in situ.

All of the new apartments will be energy efficient, and equipped for challenges anticipated from a changing climate. The majority of apartments are dual aspect, with at least one, and sometimes 2 facades benefiting from a south, south east or south west aspect to benefit solar gain. Window openings are large enough for sufficient daylight provision, without being too large to the detriment of heat loss or solar overheating.
5.10 Privacy and Amenity

Considerations:

- Each home has access to an area of usable private outdoor space.
- The design maximises the number of homes enjoying dual aspect.
- Homes are designed to prevent sound transmission by appropriate acoustic insulation or layout.
- Windows are sited to avoid views into the home from other houses or the street and adequate privacy is afforded to ground floor units.
- The homes are designed to provide adequate storage including space within the home for the sorting and storage of recyclables.

For the main apartment building, ground floor apartments feature a private terrace, which opens onto the communal courtyard. Upper-level apartments feature a generous balcony opening off the living space, which overlooks either East Wall Road or the south facing courtyard, depending on orientation. Balconies to East Wall Road are deeply recessed within the façade, to enable residents to use the balcony in relative privacy. Balconies facing the courtyard are not projecting, with a series of dividing panels between adjacent balconies. Balconies adjacent to the east and west boundaries feature extended gable wall ‘blinkers’, to restrict views towards adjacent properties. The proposed balustrade treatment for all balconies utilises a series of vertical fins, that allow direct views out from the balcony and adjacent living space, but ensure that oblique views into the balcony are restricted, for improved privacy.

For the duplex terrace, private amenity for ground floor apartments is provided by means of a terrace on the western, private façade, opening off the Kitchen/Dining space. This terrace is significantly in excess of minimum area standards. Upper floor duplex apartments feature a balcony that overlooks the courtyard.

The majority of all apartments are dual or corner aspect, and there are no strictly north facing apartments. Single aspect apartments are all south facing, with single aspect largely limited to one bed apartments.

All routes to access stairs and lifts within the scheme have been carefully configured to ensure that the amenity of adjacent residents is not undermined. This includes clear definition of curtilage treatments along the East Wall Road façade, and sufficient buffer screening to private terraces on the courtyard façade.

The site frontage is not deemed to generate any significant traffic or airborne noise, and there are no other notable sources of noise pollution immediately adjacent. Apartments are arranged to be consistent over each storey as much as possible, with living spaces and bedroom spaces located beside similar space within adjacent apartments. This will reduce the requirement for any special acoustic requirements at party wall locations. Apartment floors and flanking structure will be detailed in accordance with building regulations and best practice, to ensure that potential for noise nuisance between floors is minimised.

All apartments for the development feature generous storage provision, spread throughout the unit. All storage is arranged to be useful and accessible, and of good proportions.

5.11 Parking

Considerations:

- Appropriate car parking is on street or within easy reach of the home’s front door.
- Parked cars are overlooked by houses, pedestrians and traffic, or stored securely, with a choice of parking appropriate to the situation.
- Parking is provided communally to maximise efficiency and accommodate visitors without the need to provide additional dedicated spaces.
- Materials used for parking areas are of similar quality to the rest of the development.
- Adequate secure facilities are provided for bicycle storage.

Car parking is provided to the rear of the communal courtyard, with access and sight splays at East Wall Road designed to DMURS standards. There is parking for 34no. cars, at a rate of 0.5 spaces per apartment, with 2no. centrally located accessible spaces.

Parking is well overlooked from all west and south facing apartments and duplexes, with natural passive surveillance of both car parking and routes to car parking. However, some screening, by means of trees and low shrub planting is included as a buffer between parking and communal open space. This will reduce any potential nuisance that car parking may have on resident’s amenity, and will also minimise the impact of car parking generally.

Parking surface materials are to be distinct from the adjacent street surfaces, and will be finished in asphalt. This means that the parking elements of the public realm are clearly defined, and the separate delineation helps with speed control on the adjacent carriageway.

The communal courtyard will feature an enclosed cycle parking pavilion, with spaces at the rate of 1 per bedspace, plus some visitor parking. The parking pavilion is located so that it is well overlooked from ground and upper floor apartments. In addition to the main parking pavilion, an additional visitors parking area is included at the entrance to the courtyard, for convenient short stay parking. All cycle parking spaces will feature Sheffield stands, with spacing set out to follow best practice.
5.12 Detailed Design

Considerations:

- The materials and external design make a positive contribution to the locality
- The landscape design facilitates the use of the public spaces from the outset
- Design of the buildings and public space will facilitate easy and regular maintenance
- Open car parking areas are considered as an integral element within the public realm design and are treated accordingly
- Care has been taken over the siting of flues, vents and bin stores

The site abuts a stretch of the River Tolka that is designated as an Architectural Conservation Area within the DCC Development Plan. As a result, the proposed development must comply with the Development Plan objectives as described in CHC4 from the Development Plan, namely that ‘the development will not:

1. Harm buildings, spaces, original street patterns or other features which contribute positively to the special interest of the Conservation Area
2. Involve the loss of traditional, historic or important building forms, features, and detailing including roof-scapes, shop-fronts, doors, windows and other decorative detail
3. Introduce design details and materials, such as uPVC, aluminium and inappropriately designed or dimensioned timber windows and doors
4. Harm the setting of a Conservation Area
5. Constitute a visually obtrusive or dominant form.’

We have addressed the above objectives in our design proposals, which is explained in further detail below.

Generally, materials to both the public realm and buildings have been proposed to strike a reasonable balance between aesthetics, cost effectiveness and long-term maintenance. For example, the north façade to East Wall Road features higher quality materials and detail articulation, with more cost-effective proposals on facades within the courtyard.

The street façade to East Wall Road has a layered depth to its composition, and features a series of repetitive forms. The dominant form is a series of projecting bays on upper floors, which forms the frontage to the majority of apartments on this façade. These projecting bays are proposed to be finished in a red-buff coloured clay brick with off-white mortar. The red toned brick gives a robust finish with an appropriate colour, similar to the late 19th century brick housing within the area. However, the lighter tones, in particular when combined with a light-coloured mortar pointing, give some brightness to this predominantly north facing façade.

The remainder of the street façade forms a backdrop to the projecting bays. This façade, primarily to lift and stair cores, is set back from the main frontage. To mark this contrast and provide sufficient intelligibility and articulation to the design, it is proposed that these elements will be finished in a dark brown multi clay brick with off-white mortar.

At ground floor level, the walls immediately adjacent to the entrances to common cores are finished in a bold statement of colour, and also feature a generous canopy to help denote the importance of these entrances. These walls are to be rendered, and finished with a high-quality mineral paint. Given the accessible location, this treatment gives a reasonably robust and durable finish, which can be re-touched in future if required.

The ground floor curtilages are typically in the same plane as the stair cores, and therefore are overshadowed by the projecting bays of the floors above. In order to differentiate these overshadowed own door curtilages from other building elements, they are to be finished in a white coloured clay brick, with grey mortar. It should be noted that these elements are within the private domain of the ground floor apartments, so they will be protected from access by the general public.

Balconies are to be drained, with a perforate balustrade to the street edge, finished with PPC vertical metal railings. The vertical balcony railings are to have a deep profile and an approx.100mm spacing. This will offer screening for privacy when viewed obliquely, while also allowing direct views out from the balcony to the street below.

Other façade finish materials, including windows, window reveal trims, doors, rainwater goods and parapet cappings, will be of either aluminium or alu-clad, with a painted or PPC coating for longevity and to minimize maintenance. Windows to East Wall Road are to feature slim sill to head height opening casements, in one piece, with additional guarding requirements provided to the inside of the window frame as required. Window head and reveal trims are proposed as an expressed item, composite with the window sill. These
will project beyond the building facade by approximately 25-50mm on all 4 sides. They will typically be 15-25mm thick when viewed in elevation (and thicker for the sill element as required), and may feature a shadow trim or similar where the trims return to abut the brickwork. The exception to this are the windows to the proposed Living spaces within each apartment, where a more generous reveal projection is proposed of 100-150mm, with other detailing similar to the other windows on this facade.

Parapets are proposed in 2 forms, with a minimal functional capping being provided generally. The exception is to parapets on the 4no. projecting feature bays to East Wall Road, which propose a stepped feature parapet.

The canopies to main entrance doors will feature a flat roof, with alu-clad fascias to visible edges (including soffits), and with a membrane or metal capping to the upper surface. Canopies to ground floor own door apartments are typically below the projecting storey above, so additional canopies are not required.

The rear facade of the main building, facing the courtyard, is of a simpler and more cost-effective composition. Generally, the finish is to be rendered, with an off-white paint finish. Select brick features are proposed, which will be in dark brown multi clay brick with off-white mortar. The language of balconies, canopies and feature walls at entrances is to be as per the East Wall Road facade. However, all parapet cappings will be a minimally function capping in all locations, of aluminium construction with a painted or PPC coating, with no feature cappings proposed. Also, windows are to be PPC coated alu-clad, but with a simpler fenestration detail, with all openings at 800mm above sill level. Special aluminium reveals are not proposed to courtyard elevations.

The duplex terrace is to feature a similar level of finish as the rear facade of the main building. All proposed window frame, window reveal, balcony and rainwater goods treatments are consistent across both elements. The main exceptions are the ground floor frontage to the duplex terrace, and the recessed 2-storey void that accommodates the external stair. These are all to be finished in the dark brown multi clay brick with off-white mortar. Also, the parapets to this building are to have a feature detail, as per the 4no. projecting bays at East Wall Road.

As it is proposed that all apartments will require centralised plant for space and water heating, it is not anticipated that there will be a requirement for any plant within the private open space or curtilage of each apartment. The majority of plant will be at roof level, and sufficient plant storage space and high parapet walls have been included to ensure that the visual impact of any plant will be minimised. The flat roofs will be finished in with a sedum cover. In zones where plant is are required, these areas will have a single-ply membrane finish.

Other built forms within the courtyard include a cycle store, which is to be finished in a robust perforated mesh for security, but that allows for visible permeability to ensure the safety of all users. The structure is to be covered in a flat roof, with PPC aluminium edge treatments. Communal open bin stores are also located within the courtyard, and these are to feature a brick screen wall, with concrete capping. ESB substations and switch rooms are to be enclosed in a matching detail.

To the street edge, all plinth walls are to be finished in the proposed dark brown multi clay brick with off-white mortar, topped with galvanised mild steel railings. All boundary conditions are included in further detail in the proposed Boundary Wall Treatment Plan. For
The proposed brief has been developed by Dublin City Council, based on their records of housing needs within the locality. The proposed brief includes a broad mix of typologies, and this variety should assist in forming a balanced, sustainable community. A summary breakdown is included below:

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<thead>
<tr>
<th>Current Brief - Schedule of accommodation</th>
<th></th>
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<tbody>
<tr>
<td><strong>Apartments</strong> No.</td>
<td>Area (m²)</td>
</tr>
<tr>
<td>1B2P (typical) 10</td>
<td>51</td>
</tr>
<tr>
<td>2B4P (typical) 26</td>
<td>80-81</td>
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<tr>
<td>2B4P (atypical) 2</td>
<td>88.5</td>
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<tr>
<td>3B5P (typical) 14</td>
<td>95.7-101.5</td>
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<tr>
<td>3B5P (atypical) 3</td>
<td>105.4</td>
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<tr>
<td><strong>Total apartments</strong> 53</td>
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<tr>
<td><strong>UD Apartments</strong> No.</td>
<td>Area (m²)</td>
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<tr>
<td>1B2P UD 3</td>
<td>54.7-64.9</td>
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<td>3B5P UD 4</td>
<td>99.5-112.7</td>
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<tr>
<td><strong>Total apartments</strong> 7</td>
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<tr>
<td><strong>Duplexes</strong> No.</td>
<td>Area (m²)</td>
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<tr>
<td>3B5P (g/f &amp; 1/f) 4</td>
<td>104</td>
</tr>
<tr>
<td><strong>Total duplexes</strong> 8</td>
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Housing Quality Assessment

The proposed scheme has been developed in a manner which employs best practice in urban design and having regard to the following policy documents:

- Quality Housing for Sustainable Communities 2007
- Sustainable Residential Development in Urban areas (Cities, Towns & Villages) 2009 - Guidelines for Planning Authorities
- S.I. 604 2006: Child Care (Pre-school Services) (No.2) Regulations 2006 and (Amendment) Regulations 2006
- Design Manual for Urban Roads and Streets (DMURS)
- Council Development Plans, LAPs and AAPs

Within Appendix A of this report, we have included a detailed Housing Quality Assessment (HQA) for each apartment. For the purposes for clarity, the HQA has been presented to include a full breakdown of the variable parameters within each unit, including:

- The unit number identifier, which corresponds with the unit numbering included on the site layout drawing
- The accommodation type (dwelling or apartment), and typology (number of beds and persons)
- The Gross Internal Area (GIA) for each unit
- The target floor area for each unit
- For apartments, the +10% allowance, and whether the unit complies as a +10% unit.
- The predominant orientation or aspect of the unit
- Clarification as to whether the unit is single or dual aspect
- The private open space provision for each unit
- Whether the apartment or dwelling is designed to UD standards

The above table summarises the total number of apartments and dwellings, in terms of

- A breakdown of mix
- A summary of dual aspect vs single aspect provision
- A summary of compliance with the +10% requirements
- A summary of compliance with communal open space requirements

For each unit, a reference is included to a further series of drawings and schedules, where a full breakdown of each typology is included. This summaries:

- Plans as relevant for each apartment, and a schedule including
- A breakdown of individual living space areas, and the combined living space area
- A breakdown of individual bedroom areas, and the combined bedroom area
- A breakdown of individual storage areas, and the combined storage area
- Combined circulation areas
- Plant areas

In conclusion, the Housing Quality Assessment indicates that all units meet the design standards outlined in the documents listed above. A majority of the units exceed these standards. This provides the flexibility and adaptability which are key components of sustainable development. The layout of the site also means that the number of single aspect north facing units which do not overlook an amenity is eliminated, and the majority of units enjoying a dual aspect. Additionally for apartments, the majority of the units are 10% above the minimum areas described in the Design Standards for new Apartments.
## General Schedule of Accommodation

### 366HB

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<th>Unit Number</th>
<th>Unit Type</th>
<th>Floor Area</th>
<th>Min. Target Area</th>
<th>10% GFA</th>
<th>Floor Area &gt; 10%</th>
<th>Aspect</th>
<th>Orientation</th>
<th>Private Outdoor Space</th>
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Above (and continued next page): Excerpt from Housing Quality Assessment, refer to Drawing SHB3-EAW-AR-COA-DR-0110 for original schedule. Please also refer to Drawings SHB3-EAW-AR-COA-DR-0100 & 0101 for Apartment Type Detail Plans and Schedules, which should be read with this Housing Quality Assessment.
## General Schedule of Accommodation

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### Duplex Level +0 & +1

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**Duplex GF & 1F Total Net**

| GF & 1F Total Net | 415.97 sq m |

**Duplex Unit Level +2**

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### Duplex 2F Total Net

| 2F Total Net | 273.87 sq m |

**Total Net Area**

| Total Net Area | 5545.085 |

**Total Gross Floor Area**

| Total Gross Floor Area | 6348.33 |

*Note: Upper floor area of 2B Duplex dwellings included in this figure*

**Overall Unit Numbers**

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**Apartment Aspect Ratio**

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**Apartment 10% Ratio**

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<td>Total &gt;= 10% Total</td>
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Above: Except from Housing Quality Assessment, refer to Drawing SHE/EA/AR-CD14-DR-00110 for original schedule. Please also refer to drawings SHE/EA/AR-CD14-0100M/010 for Apartment Type Detail Plans and Schedules, which should be read with this Housing Quality Assessment.
The strategy to deliver sustainable, energy efficient design and low cost of use in response to climate change includes the following measures and is further elaborated in the Energy Strategy by Semple & McKillop Ltd submitted with this planning application:

- All units have been designed to have a compact and efficient form.
- The external envelope to all units is highly insulated to reduce heat loss.
- Windows are sized appropriately to balance heat loss and potential solar gain.
- The detail design will consider the most efficient and appropriate heating system, including heat pumps combined with demand control ventilation.
- Provision for PV panels on each roof has been included.
- Materials with long life and low embodied energy are preferred to reduce impact on the environment.
- The energy performance of each house will comply with the requirements of the building regulations, achieving NZEB with a BER of A2 or better.
- The detailed design will consider water saving measures including water saving devices and water butts for garden water use.
- SUDs compliant tree pits, the use of planted swales and permeable paving.
- Storm water is attenuated on site before discharge at limited flow rate to the public sewer management as described in the civil engineering report.
- The landscape proposals have been designed by Mitchell Associates to contribute to the sustainability of the design.
- Proposed new tree planting and variety of new planting to support greater biodiversity.
The landscape scheme is approximately 60 meters in length by 18 meters, tapering down to a 14m width in the south-east end. To the north-west, bin stores and bicycle parking have been integrated and set within shrub and tree planting while informal communal seating space sits adjacent to a 73m² play area.

To the south-east a grassed lawn area is flanked with tree, shrub and wildflower planting for seasonal interest, habitat value and informal play opportunity. Spring bulbs will be planted into the grass to provide additional seasonal colour. Further to the south-east is a grass space with a small-scale goal post to initiate kick-abouts and informal play.

Street and Carpark trees

Street tree planting will consist of species with fastigiate or neat forms suitable to the scale of Eastwall road streetscape and those which will thrive in a streetscape environment. Street tree planting is located to avoid impacts with street lighting. Street trees will be planted into a minimum of 1.2m³ topsoil (or to the requirements of the local authority parks department, whichever is greater), with the use of urban tree soils and topsoil loaded rootcells to increase rooting areas outside the main tree pit area as necessary.