

LISMORE HOMES LIMITED

Residential Development Baldoyle GA2

Roads Infrastructure Report



Table of Contents

SECTION 1: INTRODUCTION..... 1
SECTION 2: ROADS LAYOUT 3
SECTION 3: FACILITIES FOR PEDESTRIANS AND CYCLISTS 5
SECTION 4: ROAD SAFETY AUDIT 5
SECTION 5: RESPONSES TO PLANNING AUTHORITY COMMENTS..... 6

SECTION 1: INTRODUCTION

- 1.1 Lismore Homes Limited is applying for Planning Permission to An Bord Pleanala (ABP) for a Strategic Housing Development at Baldoyle in the Fingal County Council Administrative area. The proposed development corresponds to Growth Area 2 (GA2) in the Baldoyle-Stapolin LAP. This report has been prepared in support of the Planning Application.
- 1.2 Reference has been made to the following documents in the preparation of this report:
 - Fingal Development Plan 2017-2023
 - Baldoyle/Stapolin Local Area Plan 2013-2019
 - Design Manual for Urban Roads and Streets
 - Design recommendations for multi-storey and underground car parks (IStructE)
- 1.3 The proposed development consists of a Strategic Housing Development for the construction of 1,007 residential apartments (consisting of 58 no. studio units, 247 no. 1 bedroom units, 94 no. 2 bedroom 3 person units, 563 no. 2 bedroom 4 person units, and 45 no. 3 bedroom units), communal residential community rooms, and a ground floor creche in 16 no. buildings with heights varying from 4 to 12 storeys, basement and surface level car parking, secure covered bicycle parking, landscaping, water supply connection at Red Arches Road, and all ancillary site development works on a site located in the townland of Stapolin, Baldoyle, Dublin 13.

Figure 1 below shows a schematic of the location of the proposed development.



Figure 1: Location of Proposed Development
(Source: Google Maps, annotation by J.B. Barry & Partners)

- 1.4 This report addresses the following:
- Roads Layout.
 - Facilities for Pedestrians and Cyclists.
 - Road Safety Audit
 - Responses to Planning Authority comments.

SECTION 2: ROADS LAYOUT

- 2.1 Although the subject lands are generally undeveloped, roads and services infrastructure were installed more than 15 years ago in accordance with a previous planning permission. This infrastructure was never used and has now fallen into disrepair. In addition, sections of the roads and sewer infrastructure were constructed at a low elevation, facilitated by a storm water outfall which passes under the existing North Fringe Sewer before discharging to the Mayne River. The strategy for dealing with storm water disposal has changed in the intervening years and the Baldoyle/Stapolin LAP requires that the storm water outfall for Growth Area 2 (GA1 and GA3 also) passes over the North Fringe Sewer and discharges into a regional wetland in the open space area to the north. It is necessary, therefore, to raise the levels of the existing roads and sewer infrastructure to achieve this. As a consequence, it is proposed that the existing infrastructure is grubbed up, removed and rebuilt at a higher elevation to modern standards.
- 2.2 The subject site is bounded to the south by Growth Area 1 (ABP Ref. TA06F.310418), to the west by Growth Area 03 (ABP Ref. TA06F.311016), both recently granted planning permission by An Bord Pleanála, and to the east by the existing Red Arches development constructed c. 10 years ago. Clongriffin Station, on the main Dublin/Belfast rail line, is located c. 500m to the south west of the proposed development. Coast Road and its associated greenway are located c. 500m to the east of the proposed development. High amenity open space lands are present immediately to the north.
- 2.3 Vehicular access to the subject lands from the public road network is possible from the existing Red Arches development. To achieve this, it is proposed to extend Stapolin Way, which is noted as a Secondary Route in the LAP, westwards to the boundary with GA3. The permitted SHD development for GA3 shows Stapolin Way extended further to link with the northern extremity of Longfield Road (Primary Route). Stapolin Way runs in an arc generally east to west and links Red Arches Road to Longfield Road. It is categorised as a link street in accordance with DMURS and will have a carriageway width of 6.0m.
- 2.4 All other streets including the extension of Stapolin Avenue are categorised as local streets and will have a carriageway width of 5.5m to comply with DMURS. The street hierarchy is shown below in Figure 2.



Figure 2: Street Hierarchy

- 2.5 Road design speeds are 50km/hr for Stapolin Way and 30km/hr for all other roads. Kerb radii are restricted to a maximum of 4.5m in accordance with DMURS to encourage low speeds. Road junctions are designed to ensure adequate visibility for all road users and pedestrians. The junctions will act as traffic calming measures and provide safe crossing points for pedestrians and cyclists. Access to basement car parking is gained directly off Stapolin Way and other local streets. These will act as additional traffic calming measures.
- 2.6 Footpaths within the proposed development will generally be a minimum of 2.5m wide with the exception of a couple of locations where the width provided is 2m to facilitate apartment overlooking distances. 2.5m is the desirable width to enable two persons to pass comfortably and allows for moderate activity as noted in DMURS. Both proposed footpath widths comply with DMURS.
- 2.7 Parallel surface car parking bays are 2.4m wide and 6.0m long. The layout of the basement car parking has been designed in accordance with *Recommendations for multi-storey and underground car parks* published by the Institution of Structural Engineers. Car bay dimensions are 2.4m wide by 4.8m long to comply with Table 4.2. Minimum aisle widths are 6.95m for two way traffic and 6.0m for one way traffic for 90 degree parking angle in accordance with Table 4.3. A Car Park Management Plan is included in the Residential Travel Plan as required by Objective TM28 of the Baldoyle-Stapolin LAP. 10% of all parking bays will be fitted with electric charging facilities. Ducting will also be provided to facilitate the installation of electric charging points for the remaining parking bays.

SECTION 3: FACILITIES FOR PEDESTRIANS AND CYCLISTS

- 3.1 The proposed layout ensures a high degree of pedestrian permeability through the development. The layout also allows for a number of pedestrian connections to the high amenity open space lands to the north and this space links to the Baldoyle to Portmarnock Coast Road greenway and beyond. Pedestrian links are also provided to the existing Red Arches development to the south-east and Stapolin Haggard amenity area to the south.
- 3.2 The network of footpaths within the proposed development also link to similar facilities in the GA1 and GA3 lands to the south and west of the subject site respectively, both of which have received planning permission from An Bord Pleanála. In particular, these links will provide high quality access along Ireland's Eye Avenue to Clongriffin Station and the town centre facilities. A high quality link south to Grange Road will also be provided via Stapolin Avenue.
- 3.3 Similarly, a high degree of cyclist permeability is provided for in the proposed development. The nature of the road layout ensures that cyclists can use less trafficked streets to gain their destination. Cycle links are provided to the high amenity open space lands to the north and these will link with the Coast Road greenway and beyond.
- 3.4 The cyclist facilities within the proposed development will also link with similar facilities permitted for GA1 and GA3. These will provide high quality access to Clongriffin Station, the town centre and Grange Road.
- 3.5 A total of 1,754 secure covered cycle parking spaces for residents are provided at ground level. This equates to one space per bedroom. A further 500 secure covered bicycle parking spaces for visitors are also provided at ground level spaced throughout the development.

SECTION 4: ROAD SAFETY AUDIT

- 4.1 A Road Safety Audit has been carried out by an independent team of qualified auditors within Barry Transportation, a subsidiary company of J B Barry and Partners Limited. None of the audit team has been involved in the design of the project.
- 4.2 The audit raised a number of issues which have been accepted by the design team with one exception and revisions have been made to the design to resolve the issues raised. Reasons for the non-acceptance of one issue are contained in the feedback form. The Road Safety Audit accompanies this report as a separate document.

SECTION 5: RESPONSES TO PLANNING AUTHORITY COMMENTS

- 5.1 Both An Bord Pleanala and Fingal County Council have reviewed the documentation submitted during the pre-application consultation process. In addition, a tri-partite meeting has taken place where the details of the proposed development were discussed.

5.2 **An Bord Pleanala Opinion**

An Bord Pleanala has issued an opinion which includes Item 4 which deals with traffic and transportation matters. This states that the full application is to include:

A Traffic and Transportation Assessment including, inter alia, a rationale for the proposed car parking should be prepared, to include details of car parking management, car share schemes and a mobility management plan.

Response

A Traffic and Transportation Assessment accompanies the planning application and provides a rationale for the proposed car parking numbers. A total of 605 car parking spaces are located in the underground car parks and these will be for the sole use of the residents. Each underground car park will be controlled by a management company and the car spaces will be allocated by the management company. A further 138 car parking spaces are provided at ground level, 14 of which are for the Creche. The remaining 124 are for visitors.

A separate Residential Travel Plan (Mobility Management Plan) also accompanies the planning application and this addresses methods for reducing reliance on the private car including car sharing schemes and other more sustainable modes of transport. A Car Park Management Plan is included in the Residential Travel Plan as required by Objective TM28 of the Baldoyle-Stapolin LAP.

5.3 **Fingal County Council Opinion**

Fingal County Council has issued an opinion noting the following points with regard to transportation.

FCC Point 1

Given the scale of the development it is considered that some level of visitor parking that is properly integrated into the design and that avoids the potential for ad-hoc on-street parking that may cause issue particularly with regard to access for emergency vehicles on the narrower internal roads should be provided;

Response

Excluding 14 car parking spaces allocated to the creche, a total of 729 spaces are proposed for the development. 605 of these are in the basements and will be solely allocated to residents. A further 124 are at ground level and are fully integrated into the design. It is proposed to allocate all of these to visitors. The allocation and control of the car parking spaces in the basements will be the responsibility of the Management Company.

FCC Point 2

The applicant should be requested to provide for an adequate level of staff car parking to serve the proposed creche facility;

Response

14 car parking spaces have been provided to service the creche. This is made up of 6 long term spaces for staff and 8 short term spaces for drop off/pick up

FCC Point 3

Concern has been raised over the level of the access ramp to serve the basement car parking. The applicant should be requested to address this concern;

Response

As noted in Section 5.2.1 of the Flood Risk Assessment which accompanies this application, the minimum finished floor/top of basement ramp level is recommended to be +4.57m OD. The lowest level at the top of the access ramps to the basement car parking areas is +4.65m OD which is higher than the minimum recommended level.

FCC Point 4

The Traffic and Transport Assessment should be robust enough to ensure that the impact of the proposed development on the surrounding network is not underestimated. The TTA submitted is not considered to be adequate and needs to be amended;

Response

The Traffic and Transport Assessment has been amended to take account of the Transportation Planning Section's comments outlined in the Fingal County Council's Written Opinion.

FCC Point 5

All finishes should comply with the Council's Standard for Taking in Charge to facilitate any future unplanned plebiscites to have these areas taken in charge. Alternatively, a suitable condition excluding these areas from being taken in charge that can legally preclude a future plebiscite should be included;

Response

It is the intention that all finishes will comply with Fingal County Council's Standard for Taking in Charge.

FCC Point 6

There are no details provided of the access ramps particularly with regard to the clearance heights of the ramp (particularly for cyclists if the ramp is to be shared for bicycles and vehicles), the gradient of the ramp and the provision of any transition gradients. A dimensioned drawing of the car park layout with a swept path analysis for vehicle access to restricted parking spaces and sectional views of the ramps should be provided as part of the main application;

Response

It is the intention that all access ramps to the basement will only be for the use of cars. All bicycle parking is at ground level in secure covered enclosures. Longitudinal section drawings through the ramps are included with the application drawings. Dimensioned plans of the basement car park showing swept path analyses in restricted areas are also included with the application drawings.

FCC Point 7

Road Safety Audits should be carried out as part of the proposed development at the relevant stages as outlined in current edition of Transportation Infrastructure Ireland guidelines GE-STY-1027;

Response

A Stage 1 Road Safety Audit is included in Appendix 1. The recommendations in the Road Safety Audit have been adopted unless otherwise noted in the feedback form. Further audits will be carried out at the appropriate times in accordance with GE-STY-1027.

FCC Point 8

The basement car park should be designed in accordance with the requirements of the latest version of the Design recommendations for multi-storey and underground car parks published by the IStructE. The applicant has not submitted a swept path analysis of the basement car parking areas. The design vehicle for any swept path analysis should be 5m long. This needs to be submitted as part of any application going forward.

Response

The basement car parks have been designed in accordance with the current version (4th Edition) of *Design recommendations for multi-storey and underground car parks* published by the IStructE. A standard car bay length of 4.8m (for all uses) and a standard bay width of 2.4m (for mixed occupancy use) have been used as recommended in Table 4.2. Aisle widths are a minimum of 6.0m for one way traffic and 6.95m for two way traffic as recommended in Table 4.3.

Dimensioned plans of the basement car parks showing swept path analyses for a standard car are included with the planning application drawings.

