PINNACLE CONSULTING ENGINEERS



Statement of Compliance with DMURS

Lands in the townlands of Commons West, Boycetown and Kilcock (adjacent of the existing Brayton Park estate), Kilcock, Co. Kildare.

Rycroft Homes Ltd.

6-Dec-19

STRUCTURAL CIVIL DUE DILIGENCE ENGINEERING MASTERPLANNING FLOOD MANAGEMENT INFRASTRUCTURE DESIGN PRE-DEVELOPMENT ENGINEERING BUILDING INFORMATION MODELLING



CONTACT DETAILS

Name	Position	Email	Telephone	Mobile
Ronan Kearns	Associate Transportation Planner	Ronan.k@iepinnacle.com	01-2311045	0876384042

APPROVALS

	Name	Signature	Position	Date
Prepared by	Ronan Kearns	E -	Associate Transport Engineer	06/12/19
Reviewed by	James Mayer	Jun	Director	06/12/19
Approved by	James Mayer	Jun	Director	06/12/19

REVISIONS

Revision By	Date	Context
1	28/09/18	Final draft issue
2	03/10/18	Planner comments
3	12/07/19	Updated with BMC Comments
4	09/09/09	Final Draft
5	13/11/12	Updated final draft
6	05/12/19	Issued for planning

ISSUES

Revision	Date	Context
0	28/09/18	Final draft issue
1	03/10/18	Planner comments
2	04/10/18	ABP Issue
6	05/12/19	Issued for planning

This document has been prepared by Pinnacle Consulting Engineers Ltd. for the titled project and should not be relied upon or used for any other project. Pinnacle Consulting Engineers Ltd accepts no responsibility or liability for the consequences of this document being used for any purpose other than

Pinnacle Consulting Engineers Limited Brayton Park– Traffic Impact Assessment Version No. 3

PINNACLE CONSULTING ENGINEERS

the purpose for which it was commissioned. Any person using or relying on the document for such other purpose agrees, and will by such use or reliance be taken to confirm his agreement to indemnify Pinnacle Consulting Engineers Ltd for all loss or resultant damage. Pinnacle Consulting Engineers Ltd accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

CONTENT

1 Introduction		3
1.1	Development	3
1.2	Local Authority Consultation	4
2 St	tatement of Compliance with DMURS	4
2.1 Introduction		6
Table	e of Figures	
Figure	1 Road Hierarchy	7



1 Introduction

1.1 **Development**

The development will consist of the following:

'345 no. residential units (69 no. Duplex Type Units, 182 no. Houses and 94 no. Apartments) ranging from 2 to 5 storeys, a standalone creche facility (approximately 466.76 sqm) with an overall height of 2 storeys, an associated external play area (approximately 277.67 sqm), associated ancillary surface car parking spaces and bicycle parking spaces, a link street, internal roads, pedestrian paths, cycle paths, public and private open spaces.

The proposed housing mix is comprised of 13 no. 1 bed units, 136 no. 2 bed units, 158 no. 3 bed units and 38 no. 4 bed units.

Out of the 345 no. residential units, 35 no. units are put forward to meet the applicant's obligations under Part V of the Planning & Development Act 2000 (as amended).

Each residential unit has associated private open space, in the form of either gardens, terraces or balconies in addition to access to the proposed public open space (including 3 no. playground areas) with hard and soft landscaping treatment.

A total of 650 no. surface car parking spaces are provided for the residential development including visitor parking. 280 no. bicycle spaces are proposed for the proposed apartments and duplexes and bicycle spaces for the proposed houses are provided on curtilage. In addition, the crèche will be provided with 34 no. surface car parking spaces and 30 no. bicycle parking spaces.

The proposed development provides for 1 no. vehicular access and associated pedestrian and cycle paths via a new link street connecting from the Brayton Park Road and 1 no. vehicular access and associated pedestrian path providing a link into the existing Brayton Park Estate.

The proposed development makes provision for future linkages to adjoining lands; including undeveloped lands to the north-west, the adjoining undeveloped educational zoned lands to the north, as part of this application land is reserved for access to a potential future pedestrian/cycle bridge over the railway line to the north-east of the site (to be delivered by others) . In addition, the proposed development provides for pedestrian and cycle paths connection to the north east of the site, as well as 4 no. pedestrian access points and 1 no. gated vehicular (for Kildare County Council maintenance use only) and pedestrian access point to the open space at Bawnogues/Commons West along the southern boundary of the site.

Bin storage is provided either on curtilage and or in communal storage. The associated site and infrastructural works include foul and surface water drainage, attenuation tanks, SuDs arrangements, hard and soft landscaping, permeable paving, boundary walls, fences and noise buffers, 3 no. substations (approximately 20 sqm each), public lighting, a link street, internal roads, cycle paths, pedestrian paths and all associated ancillary site development works..'



The site has an area of 11.56Ha.

Refer to Pinnacle drawing P180307-P100 for a general arrangement drawing for the proposed development.

1.2 Local Authority Consultation

The Applicant has engaged in significant consultation with the Local Authority as part of the planning process as follows:

- Pre-Planning
- Section 247 Consultation
- Post Section 247 Consultation
- Pre-Application Consultation Meeting
- Pre-Application communications

Based on the above consultations the following has been agreed between the Local Authority and the Applicant:

- Proposed Link Street to be 6.5m in width;
- No direct unit access will be considered on to the above road;
- The proposed Link Street shall follow as direct a route as is practical, i.e. around the northern boundary of the Bawnogues Land, prior to heading north towards the R148 in a straight-line direction;
- Speed control measures have been included as discussed previously at the Pre-Application Consultation Meeting;
- That the Link Street can accommodate HGVs and buses;
- One inbound/outbound bus stop has been included;
- That the TTA and DMURs statement will reflect the above;
- As part of this application land has been reserved for the provision of a future pedestrian/cycle bridge over the railway line;
- Provision has been made for connections to Brayton Park, the school site and other LAP lands;
- That the TTA will include the future development of the lands to the rear of Kilcock GAA (subject to a separate application);
- Widths of footpaths and cycle tracks should be 2m;
- A cycle track on each side of the internal spine road to the proposed railway bridge should be provided;
- The LA requested that the speed tabletop ramps should be removed from the Link Street; and
- The Applicant has written to the adjacent landowner outlining the agreed roads design strategy (as outlined above) to facilitate the delivery of MTO 032.

The Applicant can confirm that the road proposals presented in the application responds to the following requirements/requests from Kildare County Council:

- The Local Authority has requested that Objective MT0 32 has been designed as an Link Street.
- The Local Authority has requested that the Link Street be capable of accommodating HGVs
- The Local Authority has requested that all speed tables be removed from the Link Street.

Pinnacle Consulting Engineers Limited Brayton Park– DMURS Version No. 6



The above items relate specifically to Traffic and Transportation. Objective MT0 32 refers to the KIIcock Local Area Plan 2015-2021.



2 Statement of Compliance with DMURS

2.1 Introduction

A hierarchy of roads have been provided as:

- 1) Link Streets;
- 2) Local Streets; and
- 3) Homezones.

The aim is to provide self-regulating streets offering low speed route choices within a highquality residential environment. While there is a hierarchy of road types, all roads through this residential development are provided as slow-moving traffic roads.

All internal estate roads have been designed with short straight elements, gentle horizontal curves from junction to junction, varying road widths (6.5m, 5.5m, 5.0m & 4.8m), smooth & gentle vertical alignments and numerous interconnections, route options & looped sections keeping speeds low to create a pleasant living environment.

Fast moving traffic is discouraged by the horizontal alignment arrangement. Speed limits of 30km/hr maximum is proposed. Home-zones such as those proposed for "local access only" and short cul de sacs shown below will have lesser speed limits applied, i.e. 10-20km/hr.



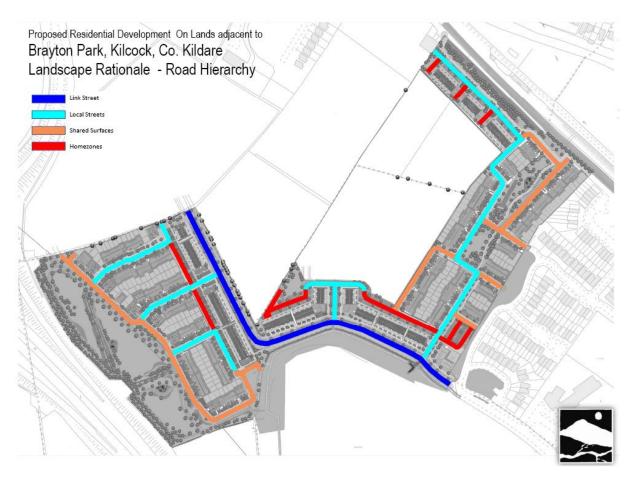


Figure 1 Road Hierarchy

Road Hierarchy:

- 1) Link Street, shaded blue;
- 2) Local Streets: shaded cyan; and
- 3) Homezones: shaded red; and
- 4) Shared surfaces: shaded orange.

The numerous T-Junctions will assist in frequently stopping the flow of traffic when travelling through the development, which will create quiet side streets used for access by locals only. Home-zones promote shared surface uses and are primarily proposed where there is no possibility of "through vehicular traffic".

The route from Brayton Park to zoned lands to the north-west has been agreed with Kildare County Council during the pre-planning discussions.

In consultation with Kildare County Council the Link Street has been designed to accommodate HGVs and buses.

Internal routes (Local Streets and Homezones, footpaths and cycle paths) have been designed in accordance with DMURS with steps taken to discourage HGVs and other large vehicles using Local Streets and Homezones.



The joining of the Link Street with the extension of the adjacent zoned lands has been coordinated with the adjacent landowner to ensure a seamless transition exists at the site boundary.

Within the subject site, place-enhancement and movement management are influenced by introducing measures to reduce driver speeds such as:

- a) roads with close proximity to buildings;
- b) tighter corner radii provided where appropriate;
- c) shared surfacing in home-zones;
- d) reduced visibility splays;
- e) on street parking where appropriate;
- f) horizontal deflections; and
- g) pedestrian activity with numerous interlinking footpaths and crossing points.

The proposed Link Street (between Brayton Park and adjacent zoned lands) is provided with a cycle lane both sides to encourage cyclist permeability and connectivity with the greater Kilcock area and future zoned lands.

All roads are provided with adjacent footpaths allowing pedestrian interconnectivity throughout this development and connection with the Brayton Park Estate, the adjacent zoned lands and further connection with the wider network of paths.

The kerb corner radii have been designed through computer programme "swept path" analysis considering traffic safety and practical turning arcs while also considering the guidelines set out within the Design Manual for Urban Roads & Streets.

Large vehicles such as waste collection trucks and furniture lorries are allowed for in the design, their frequency of passage is considered most infrequent in comparison to passenger cars. Therefore, the swept paths for these larger vehicles have been analysed to ensure circulation is achievable without overdesigning the kerb radii. Overdesign would result in the negative effect of encouraging car drivers to travel at higher than desired speeds thus defeating the purpose of applying other DMURS standards.

In general, the kerb radii dimensions are between 3m to 6m. There are locations where kerb radii dimensions are larger for road safety considerations. Typically, the radii to the primary roads are larger than those set out for secondary access roads. Horizontal alignment can have large radii to facilitate the placing of adjacent dwellings however junctions set out on these alignments will incorporate small radius bends.

In addition to kerb radii considerations, the road network throughout the development consists of many interlinked looped routes, the road hierarchy has been considered with appropriately located STOP sign positions. With the numerous stoppage locations, traffic speeds are reduced overall to an acceptable level for driver, pedestrian and cyclist safety.

With reference to carparking, the proposed development incorporates:

a) Own door carparking within the curtilage of the private dwelling plots;



- b) Off street parking for visitors;
- c) Parallel parking along the Link Street (broken up with regular planting/landscaping); and
- d) Carparking within the homezones which harmonize with the domestic environment that they exist within.

The above is in compliance with DMURS guidelines whereby Link Streets are provided with on-street parking spaces located in a series of bays that are parallel to the vehicular carriageway. Otherwise, within the low speed access roads, perpendicular spaces are provided.

Road surface finishes will be standard tarmacadam with home zone areas being finished in coloured tarmacadam as per Architect's design proposals. The design has avoided permeable paving to the areas that are envisaged to be taken in charge by the local authority as such paving is not acceptable for taking in charge. Also, Irish Water do not accept their drainage network located below permeable paving hence the use of conventional tarmacadam. Permeable paving surfacing is however proposed for the carparking bays within the private front gardens and homezone's carparking areas.

NORWICH

Pinnacle House 3 Meridian Way Norwich NR7 OTA

PHONE 01603 327 170

EMAIL norwich@ukpinnacle.com | welwyn@ukpinnacle.com

WELWYN GARDEN CITY

Mercury House **Broadwater Road** Welwyn Garden City AL7 3BQ

PHONE 01707 527 630

EMAIL

LONDON

Woolverstone House 61 Berners Street London W1T 3NJ

PHONE 0207 043 3410 EMAIL london@ukpinnacle.com

BRISTOL

Prudential Buildings 11-19 Wine Street Bristol BS1 2PH

PHONE 0117 214 0860

EMAIL

DUBLIN

Grosvenor Court 67a Patrick Street Dun Laoghaire Co Dublin

PHONE +353 1231 1041 EMAIL

bristol@ukpinnacle.com dublin@iepinnacle.com

www.pinnacleconsultingengineers.com