

DESIGN RATIONALE - LANDSCAPE ARCHITECTURE

Project: **CAPDOO, CLANE**

Project no.: **Ar.07**

Prepared on behalf of: **ARDSTONE HOMES LTD.**

Prepared by: **DERMOT FOLEY LANDSCAPE ARCHITECTS**

Date of First Issue: **02.05.2019**

Revisions: **A 09.05.2019**

ISSUED FOR: INFORMATION/BILLING/PLANNING/TENDER/CONSTRUCTION

1 Introduction

The objective of this report is to describe the proposed landscape and external works as part of the proposed residential development at Capdoo, Clane. This report should be read in conjunction with documents issued and included in this submission by Dermot Foley Landscape Architects, McCrossan O'Rourke Manning Architects, Declan Brassil & Company, DBFL Consulting Engineers, CMK Horticulture & Arboriculture and others.

Dermot Foley Landscape Architects visited the site on several occasions from May to September 2018 in order to observe conditions on site, such as existing vegetation, conditions under foot, boundaries and other items which would have a bearing on the design process.

CMK Horticulture & Arboriculture were commissioned to carry out a Tree Survey and Arboricultural Impact Assessment in compliance with BS 5837:2012. These documents are included separately as part of this submission.

The following additional documents have been issued by Dermot Foley Landscape Architects as part of this submission:

No.	Scale	Size	Title
201	1:500	A1+	Landscape Plan 1
202	1:500	A1+	Landscape Plan 2
203	1:1000	A1	Boundary Plan
210	1:200	A1	Detail Plan
240	1:100	A1+	Landscape Sections
250	1:20	A1	Hard Landscape Details
251	1:20	A1	Typical Boundary Details
260	1:20	A1	Typical Soft Landscape Details

2 Landscape Appraisal

2.1 General

The site is generally rectangular in shape with undulating topography. Bound by low density one-off rural housing along the local roads to the north and east and a series of residential developments to the south and west, the development area constitutes c.11 hectares. It comprises grassland and formally grazing lands divided by lines of hedgerows. The site is enclosed and is not open to the public at present.

Ground conditions generally vary. The lands seem to be mostly free draining with the north-eastern corner of the site slightly wetter underfoot. An existing driveway to former stables exists along the eastern boundary from the local country road.



From left to right: typical view looking south-west from the center of the site. Typical view looking west from the eastern end of the site, hedgerows divide the site into separate fields.

2.2 Boundaries

The site boundaries vary in character. The southern boundary to Capdoo Park comprises a dense hedgerow made up of mostly hawthorn. It extends north along the western boundary. Further north, a concrete block wall forms the boundary with rear private gardens of adjacent houses. The northern boundary consists of a hedgerow with some mature trees to the north-eastern and western corners. The eastern boundary is generally made up of a mixture of garden hedges and small portions of native hedges. Access to the site is possible at the existing driveway to the former stable lands from the local road to the east.



From left to right: Image showing western site boundary consisting of hawthorn hedgerow; image showing north-western site boundary consisting of hedgerow with mature tree planting.



From left to right: Image showing eastern site boundary looking north, with existing mature trees overhanging the site from neighboring lands; Image showing eastern site boundary looking south, with existing garden hedge separating the development site and existing housing.

2.3 Existing Trees and Hedgerows

The trees located along the boundaries and within the former stables are mixes of native and non-native species, varieties representing ornamental, screening and self-seeded specimens. There is an alignment of ash trees within the main site area. The hedgerows on site and along the boundaries are primarily composed of hawthorn. According to the arboricultural assessment the quality of the trees is mixed, with over half of the trees in the low or very poor categories. The trees located at the boundaries and within the former stables form better specimens. These are proposed to be retained. Mature trees are located along the northeastern boundary, within the ownership of a neighboring dwelling. An evergreen hedge is located along the existing driveway to the former stables. A few tree clusters also exist within the site.



From left to right: Image showing existing trees along north-eastern boundary overhanging the site; image showing existing hedgerow, a portion of which is to be retained as part of proposed public open space.



From left to right: Image showing tree cluster at former stable lands, most of the trees are proposed for retention; image showing line of ash trees located within the development site.

3 Landscape Strategy

3.1 General

The proposals in this submission show a lively, innovative and durable landscape and public realm, which integrates the proposed development into the surrounding context and generates new public open spaces and routes throughout. The gently sloping lands offer an exciting challenge from the point of view of accessibility, terracing and creating usable spaces. The proposed landscape strategy has been formulated by the entire design team and client in order to integrate existing landscape features, such as trees and hedgerows, civil engineering, ecological considerations and improved circulation and accessibility.

There are several components making up the overall landscape strategy:

- a diverse range of spaces including flat open spaces, play areas and smaller spaces with native tree planting and ground flora;
- a safe environment which is available to future residents but is also a positive addition to the public realm of the wider area of Clane;
- improved permeability throughout the site for pedestrians and cyclists;
- realistic retention of existing trees and hedgerows.



Early landscape concept plan, illustrating character of proposed public open space.

3.2 Public Open Space

There are three main large areas of public open space, each of them vary in character. All of the public open spaces are centrally located and overlooked from proposed houses. Their central locations ensure that the public open space is activated and used to its maximum potential. The landscape elements are arranged in such a way as to utilise as much of the space as possible. In both the Northern Open Space and the Southern Open space, significant lengths of existing hedgerow are proposed to be retained and are one of the main drivers of the overall design of these spaces.

3.2.1 Northern Open Space (Open Space 1)

A central rectangular cut lawn area is framed by series of mainly native Irish tree species planted on a grid, meadow grasses and groundcover and herbaceous planting. A formal open space is created which encourages both passive and active forms of recreation. The existing topography is exploited to create subtle variations in the character of the landscape. On the periphery, meadow and groundcover areas under tree canopies are broken up by series of paths and access points leading to the central open space. An existing hedgerow forms the western boundary to the open space and provides an appropriate buffer to the housing units to the east. Refer to drawing 210 *Detail Area Plan* issued by Dermot Foley Landscape Architects for further details of this area.



Early landscape concept plans illustrating design development of the central public open space.



From left to right: Precedent image from Montevrain Park, France, showing tree grid and managed meadow framing open space; precedent image from Barking Riverside, London, showing public open space with informal play overlooked by housing.

3.2.2 Central Open Space (Open Space 6)

A central lawn area is framed by a monoculture of *Magnolia kobus* trees planted on a grid, meadow grasses and groundcover and herbaceous planting. A formal open space is created which encourages both passive and active forms of recreation. A play area is located to the north to take advantage of the aspect. On the north-western and south-eastern periphery, meadow and groundcover areas under tree canopies are broken up by series of paths and access points leading to the central open space. The proposed tree planting in this open space will create a distinct character for this Public Open Space in the centre of the site.

3.2.3 Southern Open Space (Open Space 2)

This open space is aligned in order to retain existing hedgerow and its geometry is a playful arrangement of linear elements, to reflect the linear nature of the hedgerow. Proposed tree planting here is mainly native species, such as *Pinus sylvestris* with *Betula pubescens*. Over time, it is envisaged that the *Pinus* will form a tall stand, with their canopies visible from across the site. A number of natural play elements are incorporated within this open space.



Landscape plan, illustrating locations and proportions of proposed public open space. The three darker green spaces located centrally are the Northern, Central and Southern Open Spaces.

3.3 Permeability

A key objective of the landscape strategy is to link the new development to the wider context of Clane. A new link road will provide permeability through the lands and act as the main access road to the development. Thus the site will act as a node between the Kilcock and Celbridge Regional Roads. It will provide important connections for vehicles, pedestrians and cyclists.

The proposed internal access roads meander through the proposed development and are broken up by raised tables with pedestrian crossing points to create a safer, calmer environment for pedestrians, cyclists and motorists. In order to differentiate the cul-de-sac areas from the residential streets which provide routes through the development, it is proposed that coloured stone mastic asphalt is used to contrast the tarmacadam surface of the main roads. These areas will help in the creation of particular character areas and will facilitate access to dwellings, parking and hammerheads/ turning circles for residents and visitors and at the same time allow for a safe and comfortable pedestrian use. All of the streetscape and open spaces are overlooked for passive surveillance.

A series of smaller pedestrian and cycle links provide routes through adjacent lands to local destinations including shops and Clane town centre.

3.4 Play

Dedicated play areas are located in areas of public open space on site. They comprise of areas of natural play which are integrated into meadow areas. Play equipment includes a climbing structure, trails of timber logs and balancing equipment. The proposed play equipment will be designed and manufactured in accordance with standards EN 1176 and EN 1177. Impact absorbing surface for specific fall heights from play equipment is proposed to mimic bark and is located where it is required and within the secure play area for 0-5 years. Furthermore the large flat lawn area to the centre of the site can be used for a wide range of informal sports and play. Play equipment is outlined as part of drawing *201 and 202 Landscape Plan 1 and 2* prepared by Dermot Foley Landscape Architects, included in this submission.



Clockwise from top left: Proposed Climbing Structure; proposed timber logs; proposed jackstraw see-saw; proposed rotating balance beam.

3.5 Proposed Boundaries

Drawing 203 *Boundary Plan* prepared by Dermot Foley Landscape Architects, included as part of this submission illustrates sections of proposed and existing boundaries. The general boundaries strategy involves the retention of existing boundaries where possible and their modification to render them more appropriate to the proposed use. Where the existing boundary is formed by a hedgerow, the design has integrated this existing hedgerow where possible. Proposed hedgerows are shown to selected boundaries to fill gaps along lengths of boundary and to complement the existing character of boundaries. Where proposed private open space adjoins open boundaries, the existing boundary is proposed to be in-filled with concrete post and timber panel fencing. Boundaries to public open space are proposed to be secured using simple mesh fences constructed with minimal point foundations and without the need for strip foundations in order to protect and retain as much existing hedgerow as possible. Where existing hedgerow vegetation is thin along the boundary, this will be supplemented with additional appropriate planting.

4 Planting

Drawing 201 and 202 Landscape Plan 1 and 2 prepared by Dermot Foley Landscape Architects includes a detailed schedule of proposed planting and illustrates the location and extent of mown grass, managed meadow, reinforced grass, bulb, low groundcover, hedge and tree planting as well as existing ground flora and trees to be retained and managed.

4.1 Tree planting

New trees are proposed in order to compensate for the removal of existing trees. They will also improve the species mix on site. The proposed tree species are selected for longevity, suitability to local soil conditions and microclimate, biodiversity (native species) and where required suitability to close proximity to residential buildings. Proposed tree sizes range from semi-mature (40-45cm girth) specimen trees to multi-stemmed and native forestry transplants and whip planting. A native corridor has been proposed along the new link road across the site. This will provide a total area of approximately 4000m² of new habitat. Typical tree species are illustrated on the following pages.



Selection of proposed tree species, clockwise from top left: Hawthorn (*Crataegus monogyna*), Wild Cherry (*Prunus avium*) Hazel (*Corylus avellana*), Oak (*Quercus spp.*).

4.2 . Hedge, Groundcover and Bulb Planting

Low planting is utilized to make and reinforce sub-spaces within the larger landscape spaces, for visual screening, defensible space, visual interest, ecological purposes and to guide or direct people's movement. The low planting is conceived as subtle layering of greens within the open spaces. The planting is layered as follows; lowest - bulb planting, groundcover planting, highest - clipped hedge planting.



Typical species for low clipped vegetation, or boundary treatment with fencing, from left to right: *Fagus sylvatica* (beech), *Caprinus betulus* (hornbeam), *Crataegus monogyna* (hawthorn).



From left to right: typical groundcover under tree canopy; species for shade groundcover – native & exotic including *Darnera*, *Luzula*, *Dryopteris* and *Asplenium*.



Typical groundcover species, from left to right: *Helleborus spp.*, *Hemerocalis sp*, *Asplenium scolopendrium* and *Luzula sylvatica*.

5 Hard Landscape Materials and Finishes

The selection of paving and other landscape materials is determined by proposed function, longevity and durability. The extent of materials and the locations where a transition is made from one material to another are determined by drainage and other sustainability issues. Paving materials where practical are proposed to be constructed in a way which is sensitively integrated with lawn and soft landscape, in order to minimise the impact of hard landscape surfaces. Primary vehicular, pedestrian and cycle circulation is proposed as a durable, limited range of neutral materials with robust construction. The secondary vehicular routes are designed to 'play-down' the impact of the road infrastructure in the landscape setting. Secondary pedestrian routes and private spaces are proposed to be of 'flexible' construction and in some cases a mix of paving and lawn.



A range of paving details, clockwise from top left: brushed finished concrete and permeable block paving; natural stone kerb and sett threshold and bituminous macadam detail; reinforced grass using 'Checker Block' concrete modular product; panels of brushed finished concrete within lawn, showing integration of paving and soft landscape.

END