DESIGN RATIONALE - LANDSCAPE ARCHITECTURE

Project: **ST. MICHAEL'S, DUN LAOGHAIRE, DUBLIN**

Project no.: **Fi.05**

Prepared on behalf of: **FITZWILLIAM DL LTD.**

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1 Introduction

The objective of this report is to describe the proposed landscape and external works as part of the proposed development at St. Michael's Hospital car park, Dun Laoghaire. This report should be read in conjunction with documents issued and included in this submission by Dermot Foley Landscape Architects, Reddy Architecture + Urbanism, John Spain Associates, Muir Associates Civil & Structural Engineers, Parkbourne M&E Engineers and others.

Dermot Foley Landscape Architects visited the site on a number of occasions from August to November 2018 in order to observe conditions on site such as existing vegetation, boundaries and other items which would have a bearing on the design process.

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

No.	Scale	Size	Title
201	1:200	A1	*Landscape Plan*
210	1:200	A2	*Roof Terrace Plan*
240	varies	A2	*Landscape Sections*
250	1:20	A2	*Typical Landscape Details*

2 Landscape Appraisal

2.1 General

The development site is rectangular in shape with steep topography sloping from St. Michael's Hospital towards Crofton Road. Bound by Crofton Road to the north, the Harbour View development to the east, St. Michael's hospital to the south and Charlemont Terrace to the west, the development area constitutes c. 0.42ha.

Currently the site is a car park serving St. Michael's Hospital. A limited number of small to medium sized trees and large shrubs exist in the verges between car park spaces. There are no rare, large or historically significant tree species or specimen trees on site. There are no mature trees overhanging the site from neighbouring lands.

Figure 1 (from left to right): Typical view of the site taken from the grounds of St. Michael's Hospital looking north-west; typical view of the existing vegetation on site, located in verges between car park spaces.

2.2 Existing Boundaries

The site boundaries vary in character. The eastern boundary is a concrete wall with natural stone capping and natural stone on the western side. It accommodates a dramatic level change between a vehicular access point, part of the Harbour View development and the existing car park grounds of the subject site. The southern boundary adjoining the hospital grounds is an open boundary looking onto a number of car parking spaces and planted areas. The western boundary between the site and the existing rear gardens of dwellings along Charlemont Terrace comprises an existing building, concrete block wall with render finish and stone wall with capping. A concrete block wall with render finish extends further north along the boundary and separates the site from open space to the front of Charlemont Terrace. The northern boundary is a low wall and railing with an opening currently serving as the entrance to the car park for St. Michael's Hospital.

Figure 2 (clockwise from top left): The existing eastern boundary to Harbour View – concrete wall with natural stone on the inside; existing open boundary to St. Michael's Hospital; existing western boundary with various treatments – existing structure, wall with render finish and stone wall with capping; the existing low wall with railing to northern boundary with Crofton Road.

3 Proposed Landscape Strategy

3.1 General

The landscape strategy for the site is integrated with the building design. It takes into account the variation of building use and main characteristics of the existing site and context. The proposed overall site strategy has been formulated by Reddy Architecture + Urbanism with input from Dermot Foley Landscape Architects. It is in accordance with Dun Laoghaire-Rathdown County Development Plan and in line with the 'potential development' status within Dun Laoghaire Urban Framework Plan. The site acts as a key node in the local townscape and has the potential to deliver an appropriate transition point along Crofton Road between the residential garden character to the west and the seafront quarter to the east. The landscape design maximizes the use of space and orientation to deliver both attractive public open space and usable shared-private space for the residents.

There are several components making up the overall landscape strategy:

- Four primary character areas within the development- Public Plaza, Public Pedestrian Route, Vehicular Route, Shared-Private Courtyard (refer to figure 4),
- Clear legibility between public and private open space, ensuring a provision of a safe environment which is available to future residents but is also a positive addition to the public realm;
- Integration of functional landscape and external works such as cycle parking, pedestrian access to St. Michael's Hospital and defensible space within the overall strategy;
- Planting strategy to provide optimum external spaces and to integrate the development into the surrounding context.

Figure 3: Diagram showing the development site as a transition point along the wider Crofton Road landscape.

Figure 4: Landscape plan showing the early stages of the design development in particular the extent of the proposed development, public open space and shared-private courtyard at ground level.

3.2 Public Plaza

A particular approach to the landscape has been developed in response to the surrounding context and the proposed building uses. Similar to the building block itself, the plaza is regarded as a key node within the wider public realm of Dun Laoghaire and will provide a high-quality area of public open space. The plaza forms a fulcrum of intersecting pedestrian circulation. Located to the north of the site, just off Crofton Road, it serves as the transition point between the urban town centre and the residential character to the west. As a threshold it provides a welcoming entrance for the residents and visitors into the site and St. Michael's Hospital, further south. Furthermore, the plaza is organized as a series of sub-spaces to cater for the various functions located on the ground floor of the building. A greener character is proposed for the western side of the public space, while to the east high-quality durable paving sensitively integrates itself into the wider streetscape. A proposed large specimen tree is to be planted at the north-eastern corner of the site, as a gesture to the existing tree alignment along the Harbour View development, but also to act as a local landmark, signifying arrival at the new public plaza. This tree is also the start of the new pedestrian route linking Crofton Road with St. Michaels hospital (further described in section 3.2). A series of low walls and integrated seating form part of the northern boundary referencing the quaint front garden character of the terraces further west. Planting is also used to bridge one character to the other, creating another layer to the space with ornamental trees, dense groundcover and herbaceous planting. Space for a café terrace is nestled within a larger area of planting, creating an attractive and comfortable atmosphere for seating.

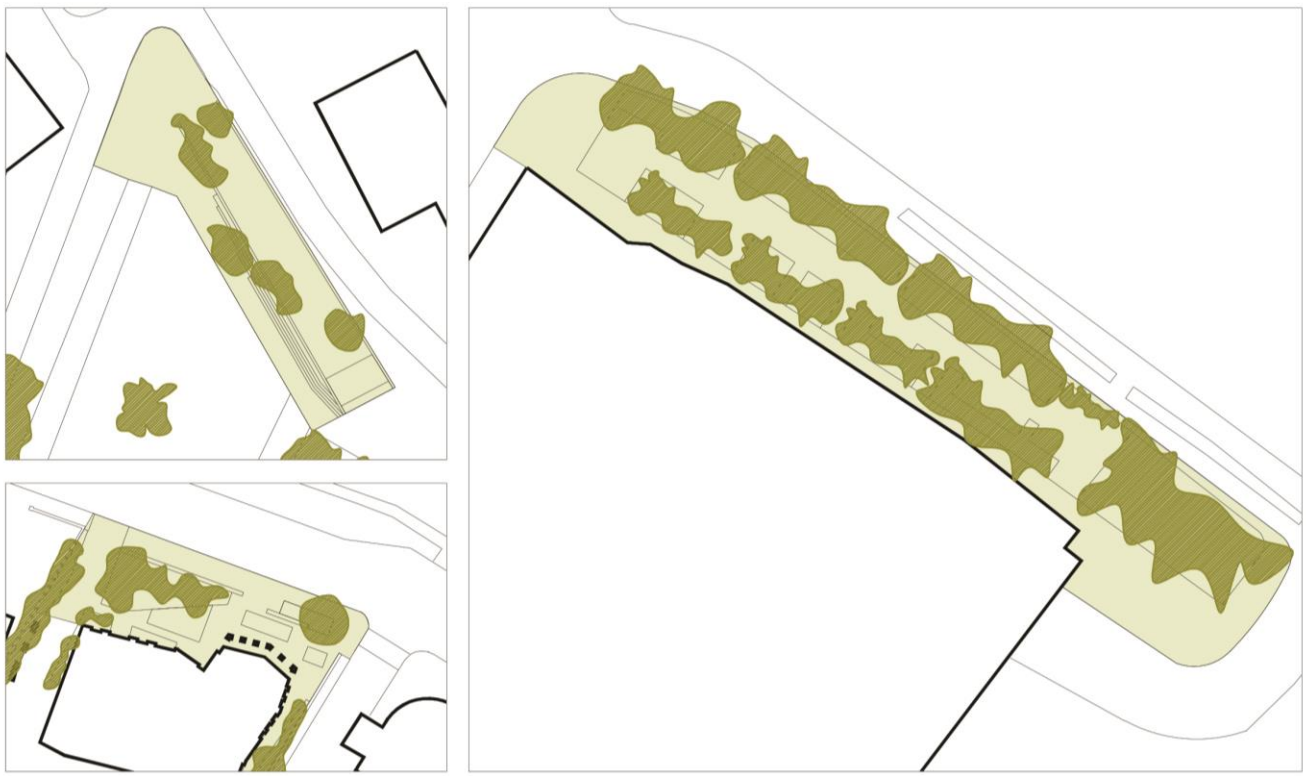

Figure 5: Scale comparison of the proposed public plaza, with existing open spaces in DLRCC shown at 1:1000 scale (clockwise from top left); extension to Peoples Park; The Metals Walkway; proposed public plaza at St. Michaels.

Figure 6: Precedent images illustrating character of proposed plaza (clockwise from top left); Sovereign Square, Leeds; New Ludgate, London; Pancras Plaza, London; the Goods Line, Sydney

3.3 New Pedestrian Route

While the public open space enables strong east-west connections, the new pedestrian route accommodates direct access to the grounds of St. Michael's hospital, adding another layer of permeability to the street network. A gently sloped path is proposed to tie in to existing levels at Crofton Road and in the St. Michaels Hospital grounds, allowing for universal access. The enhanced landscape design with areas of dense tree planting will engage the public to utilise the route. The overall scheme is linked through the use of materials. Two different formats of paving are used to carpet the plaza and the pedestrian route through the blocks, linking the spaces within the development with the streetscape at the outer edge.

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3.4 Vehicular Route

The site access points to the new development have been carefully considered to optimize the link to the wider context. The proposed site boundary off Crofton Road will be visually permeable, providing views into the site and inviting visitors to the public open space. While the entrance to the north-east brings visitors in to the hospital grounds, the north-western entrance will provide both vehicular and pedestrian access. Within the overall site strategy, vehicular access to the hospital is kept as close to the periphery as possible in order to provide a car-free experience across the rest of the site. Furthermore, a number of design measures have been implemented as traffic calming techniques for vehicles. The area is shared surface with planting meandering in and out to create a safer and calmer environment for users. The movement through the development on this side occurs under building overhangs, thresholds and subtle material changes, which help differentiate between the various character areas and at the same time unify the overall composition of open space.

Figure 7: Precedent Image from Boulogne-Billancourt, France, illustrating character of vehicular route with high specification paving and soft landscape edge

3.5 Shared-Private Open Space

The shared-private open space acts as a green courtyard nestled in the centre of the two blocks. The courtyard is discrete yet easily identifiable from the rest of the proposed landscape with multiple level changes and earthworks separating it from public areas. The change in level from the pedestrian route down to the courtyard helps to define the different zones of use within the overall scheme. A steel detail incorporated into the stairs will allow cyclists access the courtyard from the pedestrian route. The landscape within the block is designed to exploit orientation where possible and to enhance micro-climate. The landscape elements are arranged in such a way as to utilize as much of the space as possible. A cut lawn area extends from the lounge at ground floor level at building 01 and is framed by groundcover and herbaceous planting. Soft landscape and clipped hedges are proposed in external layout to provide further visual amenity in the shared-private open space.

Figure 8: Precedent images illustrating character of semi-private open space (clockwise from top left); Market Street courtyard, San Francisco; Cycle ramp on steps; Pedestrian ramp at Airfield Estate, Dundrum by Dermot Foley Landscape Architects; Le Jardin Clair-Obscur, France

3.6 Communal roof gardens and terraces

Three ‘intensive’ shared-private roof gardens are proposed as part of the scheme, one at Level 5 and one at Level 8 of Block 01 as well as one at Level 8 of Block 02. The proposed roof gardens provide a bright and visually rich environment for the residents. They incorporate opportunities for group activities, with large communal table in Block 01 on Level 8, table tennis on level 8 of Block 02 as well as a range of seating and lounging opportunities throughout all terraces. The terraces are also sub-divided for quieter areas and individual uses. This roof garden accommodates informal movable seating as well as built-in benches, allocated throughout the various sub-spaces. The seating provides a range of experience for different users, for example the communal table can be used as an outdoor working space during summer months.

Fig.9: Screens and planting as measures to help shelter against wind at a roof garden in London.

Wind mitigation, using vegetation along with glass as well as perforated screens is one of the main aspects of design in order to achieve a pleasant microclimate and enable users to spend time on roof terraces. All three terraces benefit of sunlight, Level 8 terrace on Block 01 being south facing while Level 5 terrace on same block is south-west facing. Level 8 terrace on Block 02 is also south-west facing.

In addition to the ‘intensive’ roof gardens ‘extensive’ green roofs are also proposed. ‘Extensive’ green roofs are not intended for human use, but assist with energy efficiency and storm water management. They can also contribute to biodiversity. Refer to architect’s documentation for further detail on extensive green roofs

4 Proposed Planting

Drawing 201 *Landscape Plan*, prepared by Dermot Foley Landscape Architects, includes a schedule of proposed planting and illustrates the location and extent of lawn, groundcover, hedge and tree planting.

4.1 Tree Planting

Tree species are selected for longevity, suitability to local soil conditions and microclimate, biodiversity (native species) and where required, proximity to boundaries and the proposed building. Proposed tree sizes range from semi-mature (35-40cm girth), to extra heavy standards and multi-stemmed trees. A grid of Holm Oak trees is proposed as a unifying soft landscape element on site, which will provide green canopy and thrive in the coastal conditions. A total of 133 new individual trees are proposed in order to improve the species mix and the proportion of native species. Typical species proposed are illustrated below:

Figure 9: Selection of proposed native tree species (from left to right): Betula pendula (Birch), Arbutus unedo (Strawberry tree), Crataegus monogyna (Hawthorn)

Figure 10: Selection of proposed specimen and ornamental tree species (from left to right): Quercus ilex (Holm Oak) Pyrus chanticleer (Pear), Prunus ‘Accolade’ *(Cherry)*

4.2 Hedge, Climber and Groundcover 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.

Figure 11: Typical species for low clipped vegetation (from left to right):
Fagus sylvatica (beech), Carpinus betulus (hornbeam), Crataegus monogyna (hawthorn).

Figure 12: Precedent images showing groundcover planting (from left to right): groundcover under tree canopy; species for shade groundcover – native & exotic including Darmera spp., Luzula spp., Dryopteris spp. and Asplenium scolopendrium.

Figure 13: Typical groundcover species (from left to right): Helleborus spp, Hemerocalis sp., Asplenium scolopendrium and Luzula sylvatica.

5.0 Proposed Hard Landscape Materials and Finishes

The selection of paving and other landscape materials is determined by proposed function, longevity and durability. 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 and pedestrian circulation is proposed as a durable, high spec range of natural stone, designed to 'play-down' the impact of the vehicular route 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.

Figure 14: A range of paving details (clockwise from top left): Small format natural stone cubes, streetscape detail with large and small format natural stone paving, raised steel planters and soft landscape sensitively integrated with hard landscape

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