

# **MAYESTON HOUSING PROJECT**

## **LANDSCAPE DESIGN**

### **PART 8 DESIGN REPORT**





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Site In 2021



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# 1.0 INTRODUCTION

## Background

The proposed site for the development is located in the townland of Mayeston, Poppintree, Co Dublin. The site is bounded on the north by the M50, to the west by a large public landscaped space, to the south by Mayeston Downs houses and to the south and south-east by Mayeston Green and Mayeston Downs, and to the east by Silloge Green Lane. The proposal is for a residential development of 121 no. residential apartment units and creche, arranged in 5 buildings varying in height from 3 storeys to 6 storeys.

The FCC-owned land on which the proposed buildings are located has an extent of 1.35ha, and falls approximately 2.2m from the north-west towards the south-east. The surrounding context is characterized by perimeter block apartment buildings and terraced 2-3 storey houses. There are no existing buildings on the site apart from ground floor slabs and a road which were partially constructed circa 2008 (FCC Planning Ref: FCC 06A/1348 and F07A/1423), before the works were abandoned. Some soil heaps remain on the site as part of these works. The main part of the site to the west is fully fenced off and the eastern part of the site is overgrown grass and scrub. The soil has a high clay content and has poor penetration.

The intent is that the development will improve the amenity of adjoining areas and provide quality housing with a variety of units and communal amenity space. As a larger park and green area is located adjacent to the project area, the focus for the public realm concept will be to provide safe, local spaces for residents, to complement the existing green structure.



Site image with approximate indication of boundary



## Images of existing situation



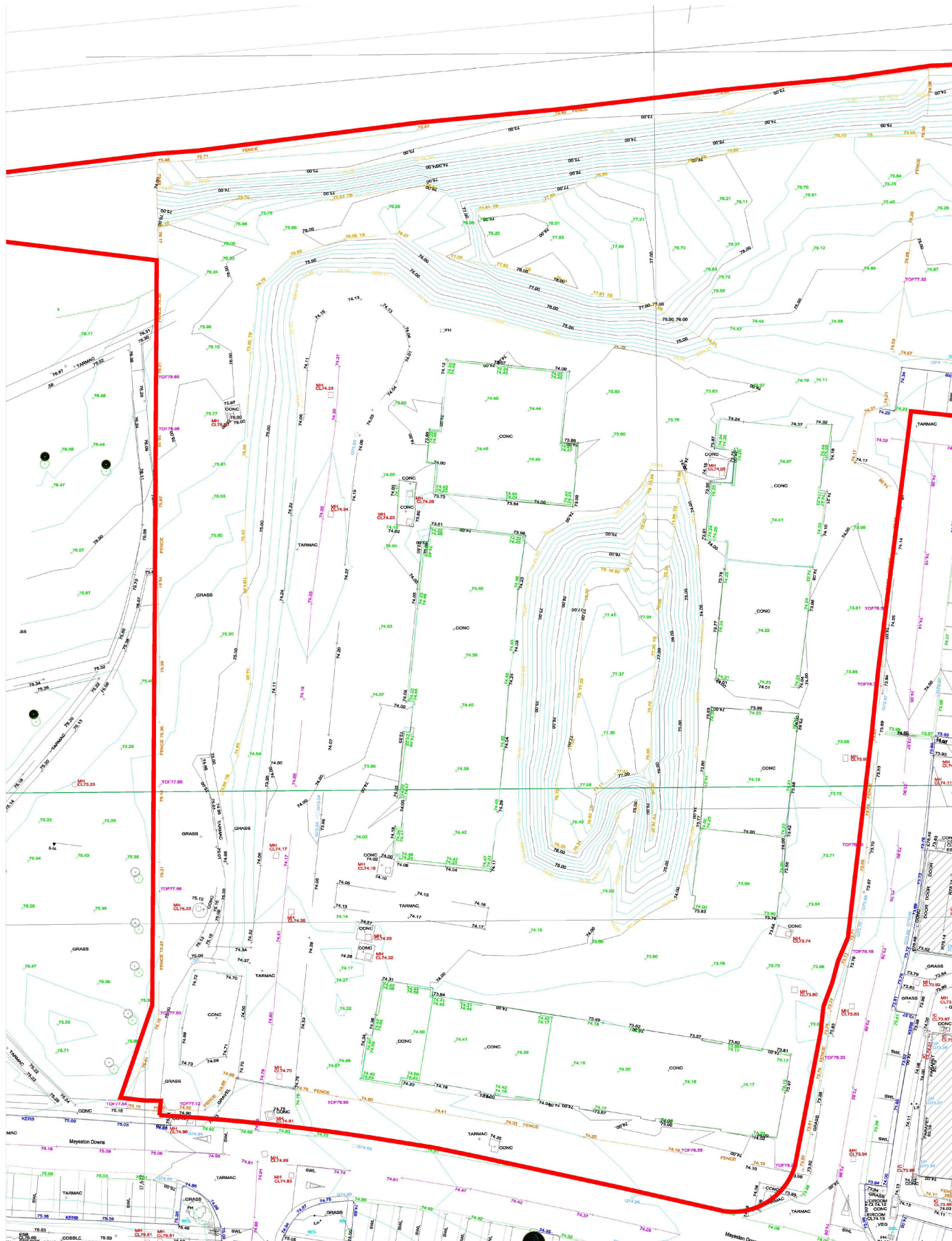
*Images showing the entrance roads and surrounding green areas to the project area.*

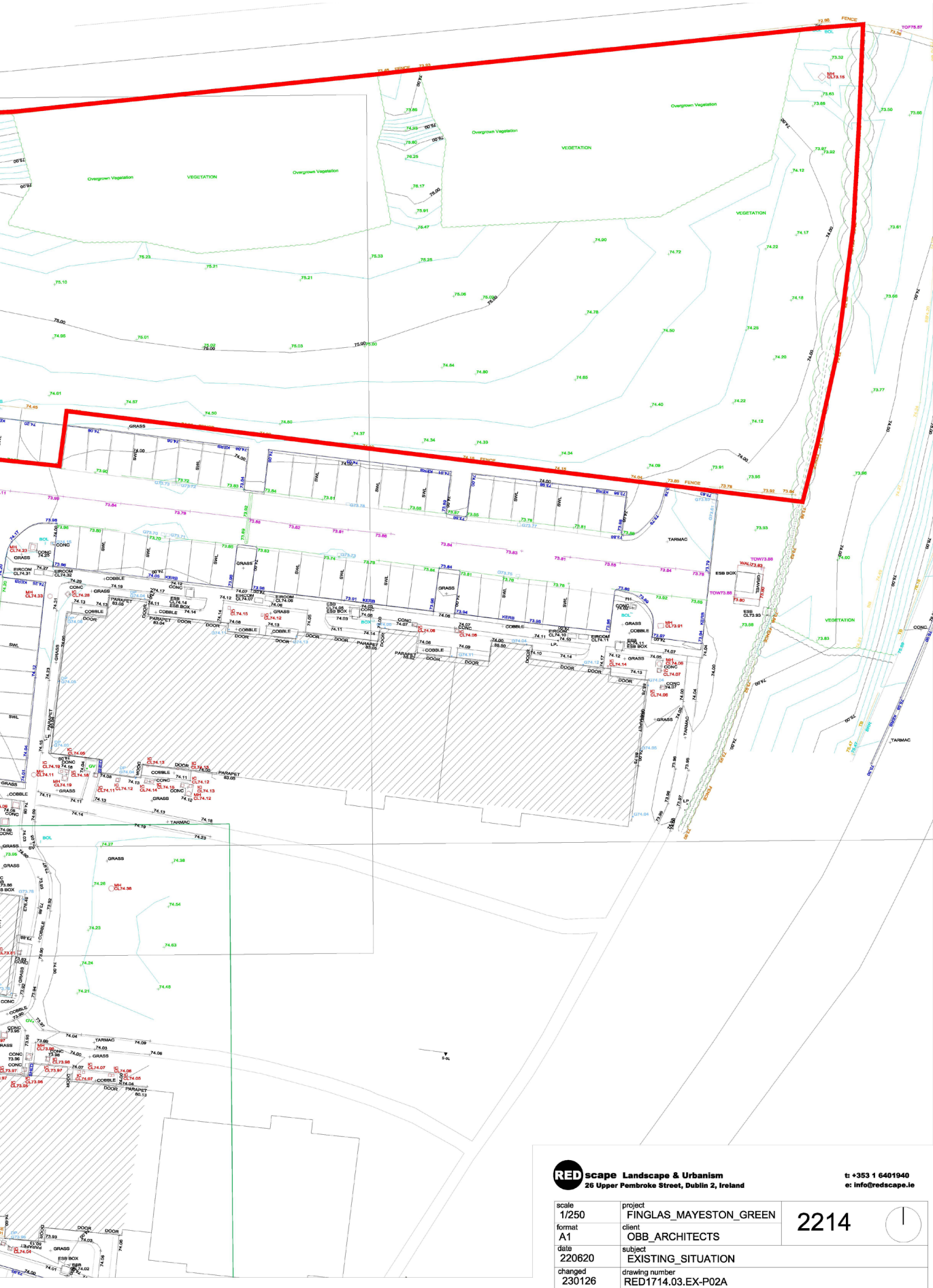






# Overall plan, existing situation





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date 220620	subject EXISTING_SITUATION		
changed 230126	drawing number RED1714.03.EX-P02A		

## **2.0 DESIGN**

**Encouraging active use of the public realm improves the quality of life for all residents.**





Visual of inner courtyard (Source: OBBA)

## Public realm concept

Two green areas, Mayeston Park and Mayeston Green are located adjacent to the proposed development and offer significant space for outdoor activities. The principal objectives of the landscape design for the project area are to complement the existing green structure with high quality localised communal amenity spaces and to contribute to the sustainability of the proposed development for sustainable urban drainage.

## Housing area

### A central green area with a nature play feature

The main courtyard has been designed as a traffic free, large green space to facilitate excellent sunlight penetration at all times of the year, as demonstrated in the sunlight studies prepared. It is overlooked by many of the dwellings in the project. Within this space a natural play area, stepping stone bridge and informal seating areas are proposed for this eco informed setting. The setting for the courtyard can be maintained to become more extensive over time, if so desired by the residents and maintenance.

### Sustainable urban drainage

The central green area is sunken to provide a dry swales as part of the SUDS strategy. Storm water runs off via pathways and flows to a north south collector located at the centre of the green courtyard. The collector is detailed as a dry stone rill with steel edges, which curves through the inner courtyard. The intention is to raise an awareness of the drainage concept and demonstrate how suds can become a visible, valued feature in the public realm.

The (dry) swale is planted with grass and several varieties of trees (some native) for all year round visual interest, biodiversity, and occasional shade. Zones along the centre of the swale areas to be extensively maintained with zones of bioswale vegetation parallel to the collector. This vegetation can tolerate occasional inundation, as the water level can rise to 0.5m height for short periods

within the swales.

Permeable concrete pavers are proposed in the majority of the hard landscaped areas. Tree pits will also be designed to buffer water in wet periods and store water in dry ones. The tree pits are extensive, up to 20 to 25m<sup>2</sup> per trees planted in hard standing or semi permeable paving.

### Edges, privacy and social protection

It is not proposed to close off the courtyard with gates and railings but the combination of the clear thresholds to the space and the supervision by ground and upper floor dwellings will assist in creating a safe secure space. Ground level apartments have private gardens or terraces which are enclosed with hedges. These will be planted on publicly owned space, but can be privately maintained by the residents with a recommended height of 1.2m. The proposed hedges have a mixed species planting, chosen for biodiversity, security (thorns) and the ability to fix carbon. The crèche garden at the southern end of the site, will be enclosed by a beech hedge in combination with a railing.

### Green parking area

The parking area to the north of the site has been designed as a green parking area, with grasscrete parking spaces in combination with porous macadam to slow run off and buffer water. A layer of trees has been proposed for the parking areas to mitigate the effects of

particle pollution from the M50 and offer some marginal reduction in noise levels. The green concept is extended to the storage facility for bikes where stacked parking has been proposed in a secure transparent building with a sedum roof. Runoff from the roof will flow via ground level drain to swale, which flows to an attenuation basin in the nearby park.

### **Play and pleasure**

The central green area has a natural play area consisting of a felled tree, in combination with wooden play elements that bridge the collector section of the swale. Several benches for outdoor seating are located around the central courtyard. Concrete steps are integrated into the grassed slope to offer an informal gathering place for residents in one of the sunniest locations.

### **Paving for flexible spaces**

A light-coloured concrete paving with natural stone topping has been proposed to form a consistent surface throughout the project area. A similar paving also been proposed for on street parking areas to visually reduce the width of the carriageways encouraging drivers to reduce speeds. A maximum speed limit of 30kph for the entrance street to the parking area is recommended.





*Visual of inner courtyard, looking towards the M50. (Source: OBBA)*





# Proposed situation



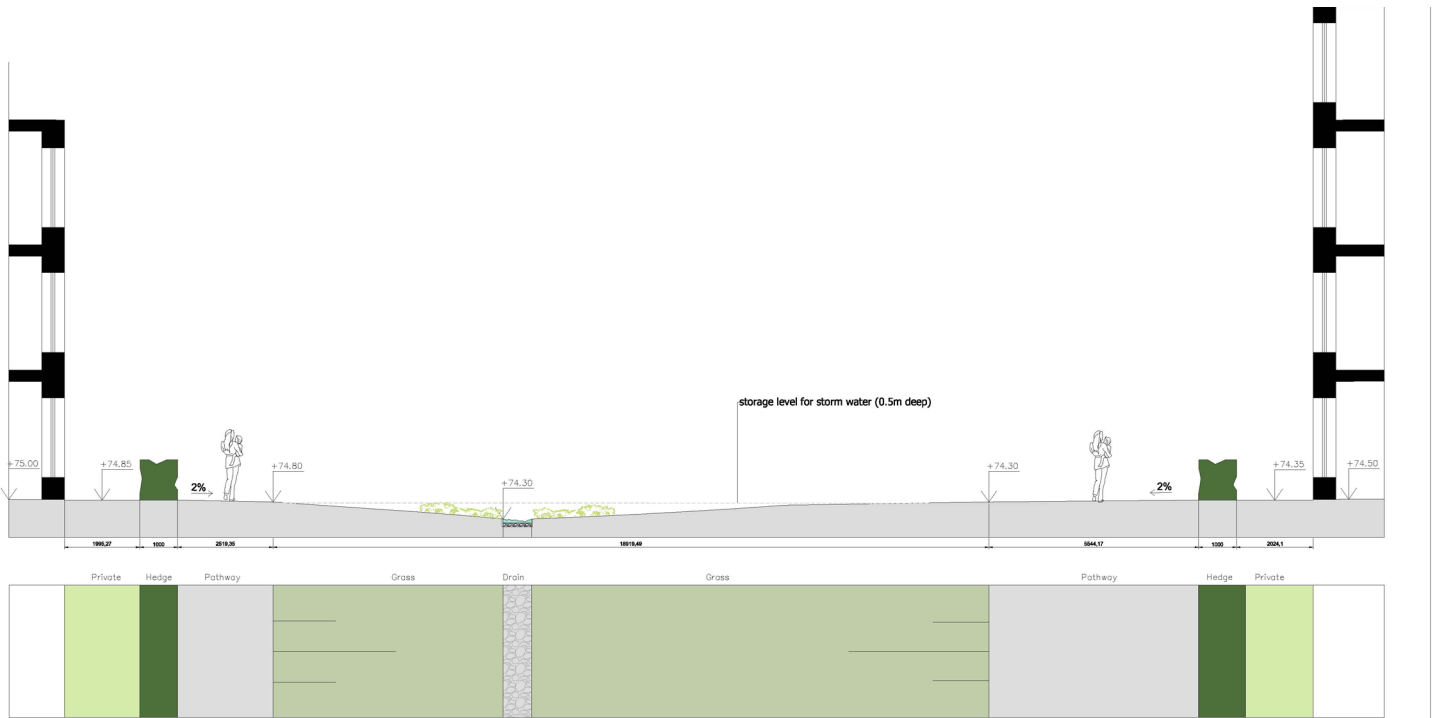


code	Specification
<b>Pavement and surfacing (to architect's and engineers specifications)</b>	
S1	Permeable vehicular street paving
S2	Permeable pedestrian paving
S3	Porous macadam
S4	Grasscrete
S5	Wood chip or sand surface
<b>Drainage (to architect's and engineers specifications)</b>	
D1	Open grid drain
D2	Surface water drain
<b>Furniture (to landscape architect's specifications)</b>	
F1	Wooden bench (with backrest)
F2	Bike stands
F3	Bollards
F4	Concrete step (for sitting)
<b>Lighting &amp; electrics</b>	
L1a	Street lighting t.b.t.
L2	Orientation Lighting
<b>Play, fitness, amenity</b>	
P1	Natural play area t.b.t.
P2	Stepping stones
P3	Adventure play area
P4	Fitness area
P5	Community garden
P6	Canopy for teenagers
<b>HEDGES</b>	
H1	Fagus sylvatica
H2	Mix (of 60% Crataegus, 20% Prunus spinosa and 20% Acer campestre)
<b>GRASSES AND PERENNIALS INCLUDING GROUND COVER</b>	
G1	Grass
G2	Slowly growing vegetation
G3	Bulbs
<b>STRUCTURAL TREES MEDIUM</b>	
T1	Acer campestre 'Elaeijk'
T2	Tilia cordata 'Worpleston'
<b>STRUCTURAL TREES MEDIUM FOR PARKS</b>	
T3	Quercus petraea
T4	Quercus robur
<b>STRUCTURAL TREES MEDIUM FOR COURTYARDS</b>	
T5	Prunus serr. 'Shirofugen'
T6	Pyrus calleryana 'Chanticleer'
T7	Malus baccata 'Street Parade'
<b>WOODLAND PLANTING</b>	
T8	Woodland planting mix of native species

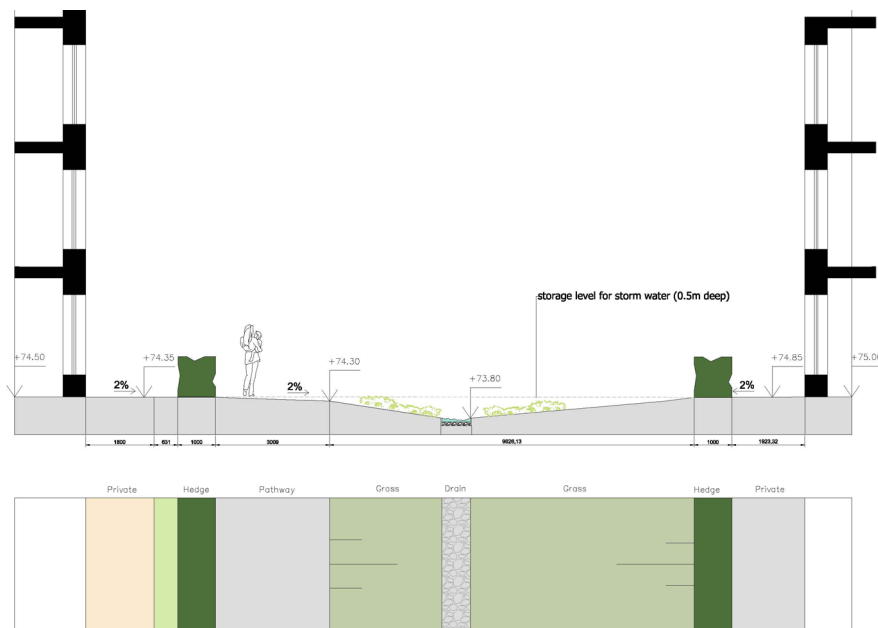
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# Sections

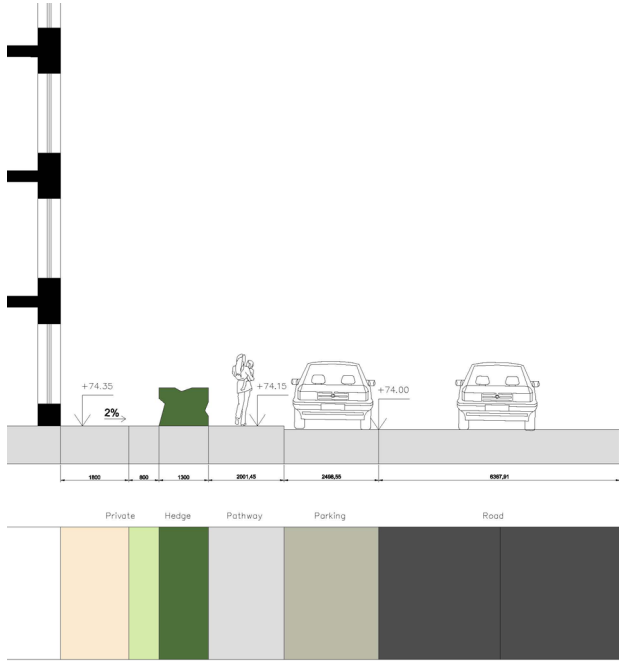
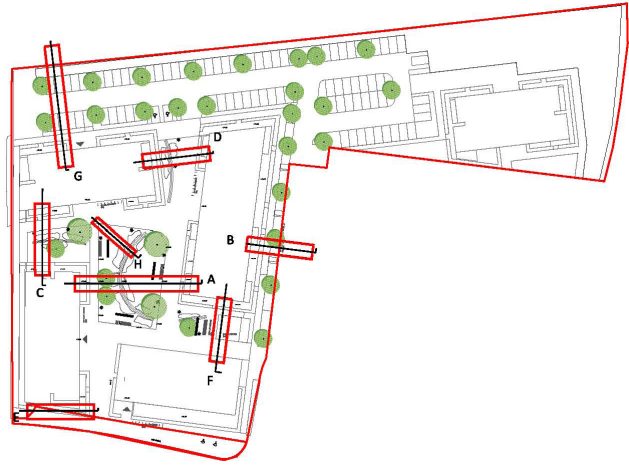


Section A

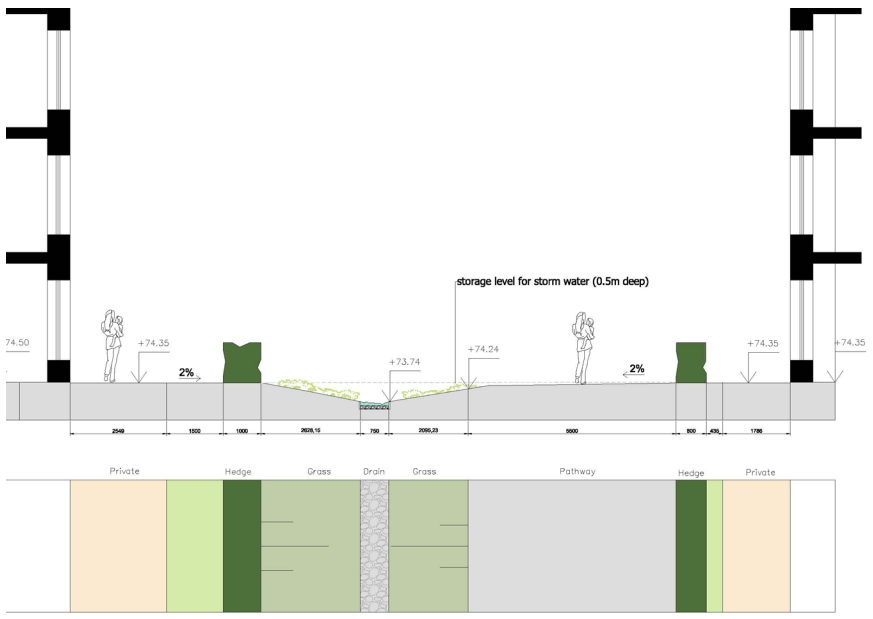


Section C



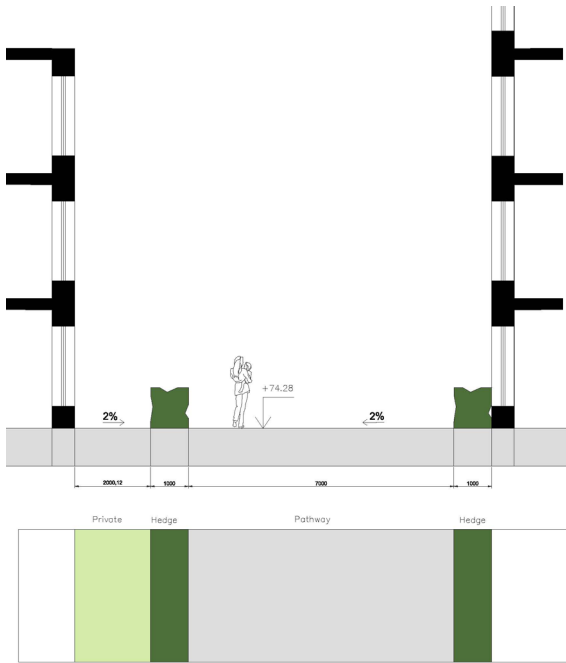


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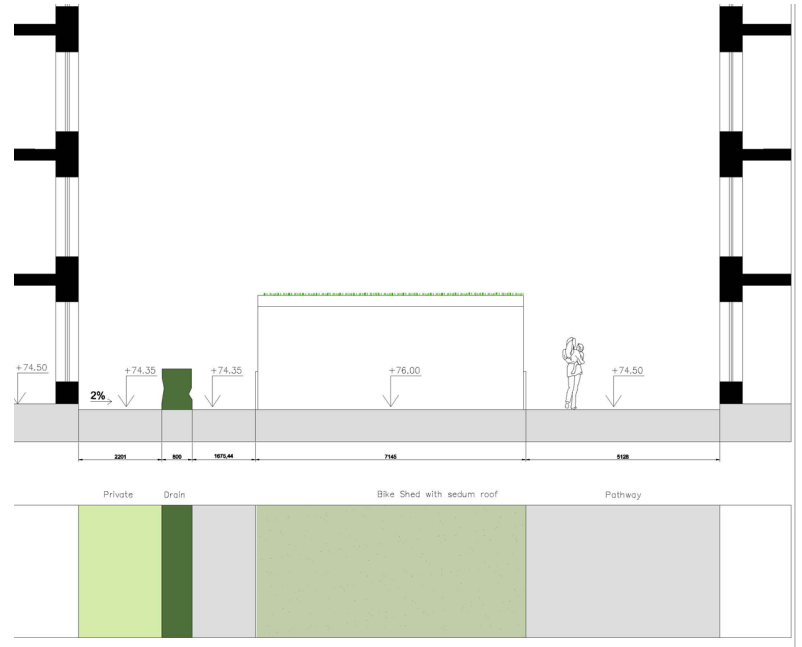


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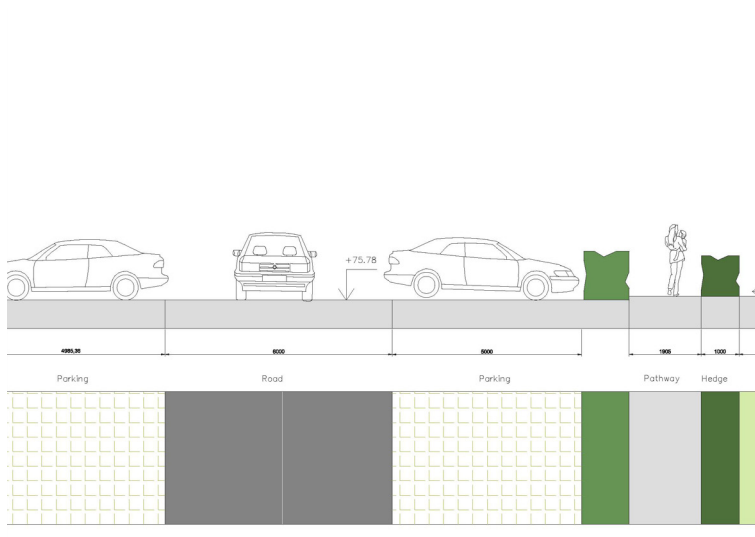
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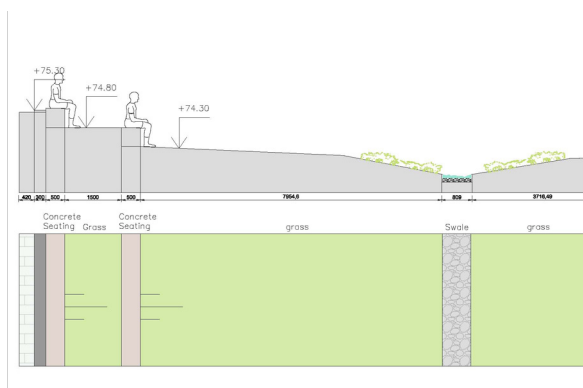
Section E



Section F



Section G



Section H

# Public realm precedents

## Wadi or swale

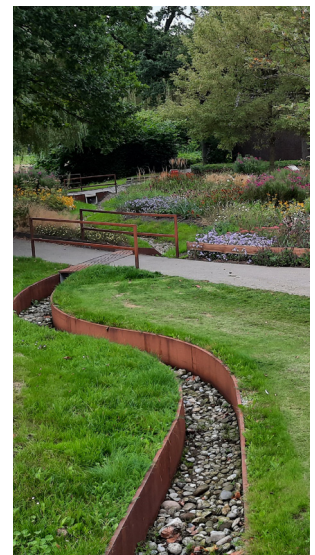
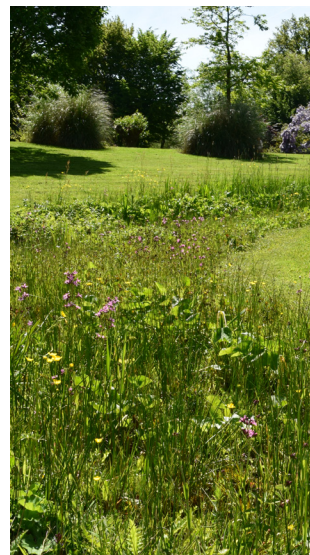
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The (dry) swale is planted with grass and several varieties

of trees ( some native) for all your round visual interest, biodiversity, and occasional shade. Zones along the centre of the swale areas to be extensively maintained with zones of bioswale vegetation parallel to the collector. This vegetation can tolerate occasional inundation, as the water level can rise to 0.5m height for short periods within the swales.



G2 Wadi with bioswale vegetation



D1, gravel drain with steel edges will be filled with a fine grade grit.



Temporary ponding in wadi



## Natural play

The swale area has a natural play area consisting of a felled tree in combination with wooden play elements laid over the collector section of the swale. Several benches for outdoor searing are located around the central courtyard to enjoy the sunniest spots. Concrete steps are integrated into the grassed slope to offer an informal gathering place for residents in one of the sunniest spots.



P1, Natural play

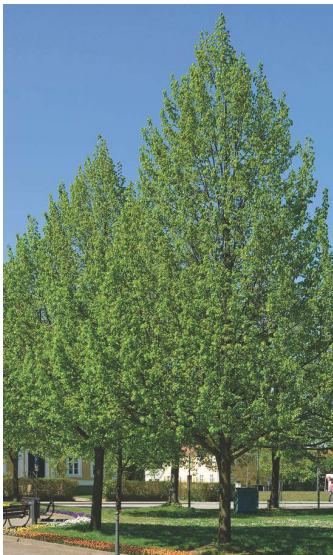


Examples for natural play elements



## Trees

A palette of trees have been selected to offer year round colour and diversity. Larger formal trees have been selected for the entrance road to match the scale of the buildings. In the internal courtyards, smaller trees, with seasonal colour are proposed. Tree pits with 20m<sup>3</sup> of structural soil and at least 1 aeration and water inlet are possibly required for medium trees planted in half open or hardstanding. A check in the next phase will be carried out in line with the Fingal Tree Strategy, to establish the need for tree pits.



T1



T2



T3



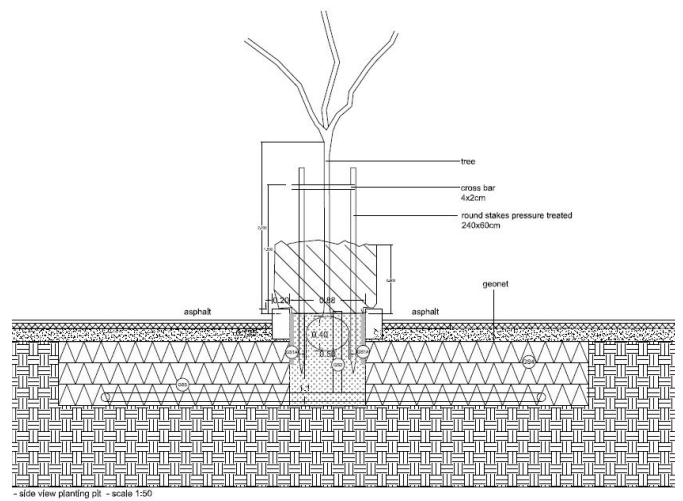
T4



T5



T6



Tree pit detail with 20m<sup>3</sup> of structural soil for trees in half open and in hard standing.



## Hedges

Ground level apartments have private gardens or terraces which are enclosed with hedges. These will be planted on publicly owned space, but can be privately maintained by the residents with a recommended height of 1.2m. The proposed hedges have a mixed species planting, chosen for biodiversity, security (thorns) and the ability to fix carbon. The crèche garden at the southern end of the site, will be enclosed by a beech hedge in combination with a railing. The western boundary may possibly require a low railing in combination with the proposed hedge and will be worked out in the detailed design.



H1



H1



H2



H2

## Bulbs

Perennial bulbs mixes can be planted into existing turf and have been proposed to enhance seasonal colour in the park. They are low in maintenance.



G3



## Green parking

The parking area to the north of the site has been designed as a green parking area, with grasscrete parking spaces in combination with porous macadam to slow run off and buffer water. A layer of trees has been proposed for the parking areas to mitigate the effects of particle pollution from the M50 and offer some marginal reduction in noise levels.



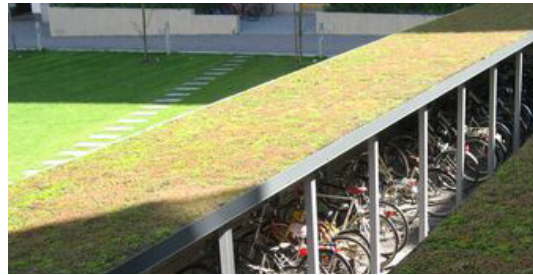
S4, grasscrete



S3, porous macadam

## Sedum roof

The green concept is extended to the storage facility for bikes where stacked parking has been proposed in a secure transparent building with a sedum roof. Runoff from the roof will flow via ground level drain to swale, which flows to an attenuation basin in the nearby park.



G3, sedum roof



Example of stacked bike parking

## Lighting

Orientation lighting is proposed for the internal courtyard, in addition to functional light posts as shown on the lighting plan by others.





## Surface Materials

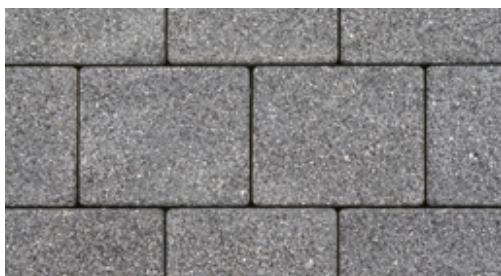
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S1, Concrete street pavers, light grey



S2, Concrete pedestrian pavers, light grey



S1, Concrete street pavers, dark grey

## Furniture

A series of elements for the public realm have been selected to be robust and low maintenance. Wooden benches will offer a comfortable place to sit and encourage social interaction. Bike stands offer a no nonsense easy way to park. Bollards will keep vehicles out of traffic free areas.



F1, bench



F2, bike stands



F3, bollards

