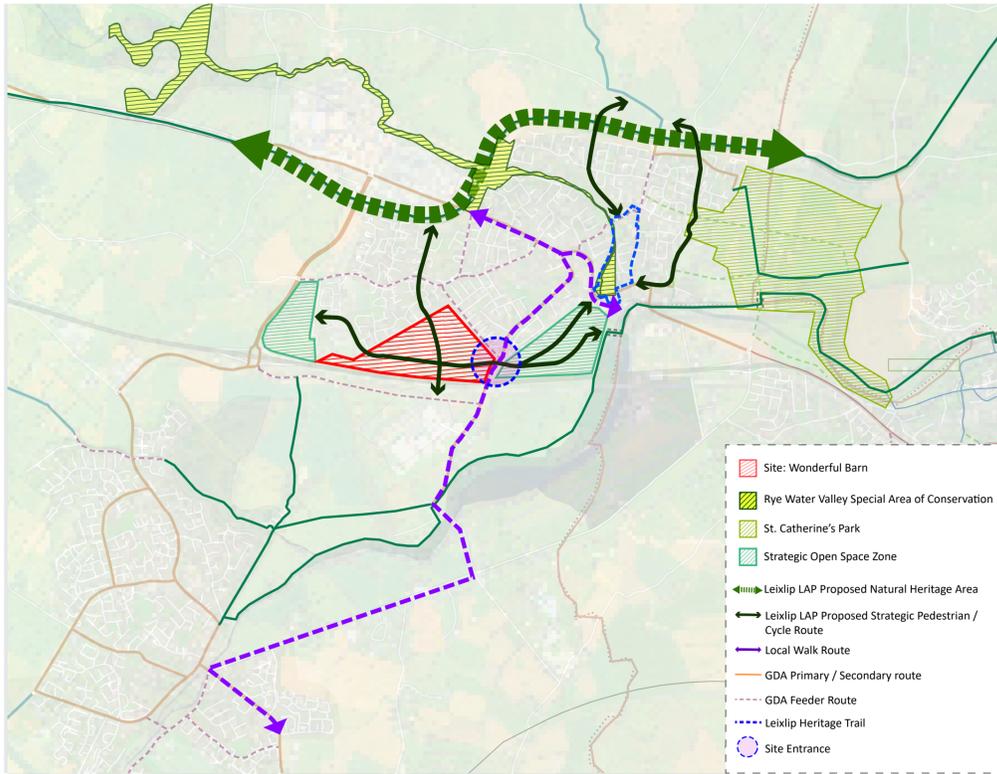


# Site Analysis

## The Wonderful Barn & Park

The existing conditions on-site were analysed - the historical context, the circulation, existing tree planting, topography and key views in order to shape our conceptual design of the site.



### Landscape Designations of surrounding landscapes

The site is surrounded by a number of designated landscapes of which the site is to have links and connections to including continuing existing and proposed cycle routes, pathway links, connections to trails and green open spaces, green corridors and networks.

The site provides a key green space that connects these designations.

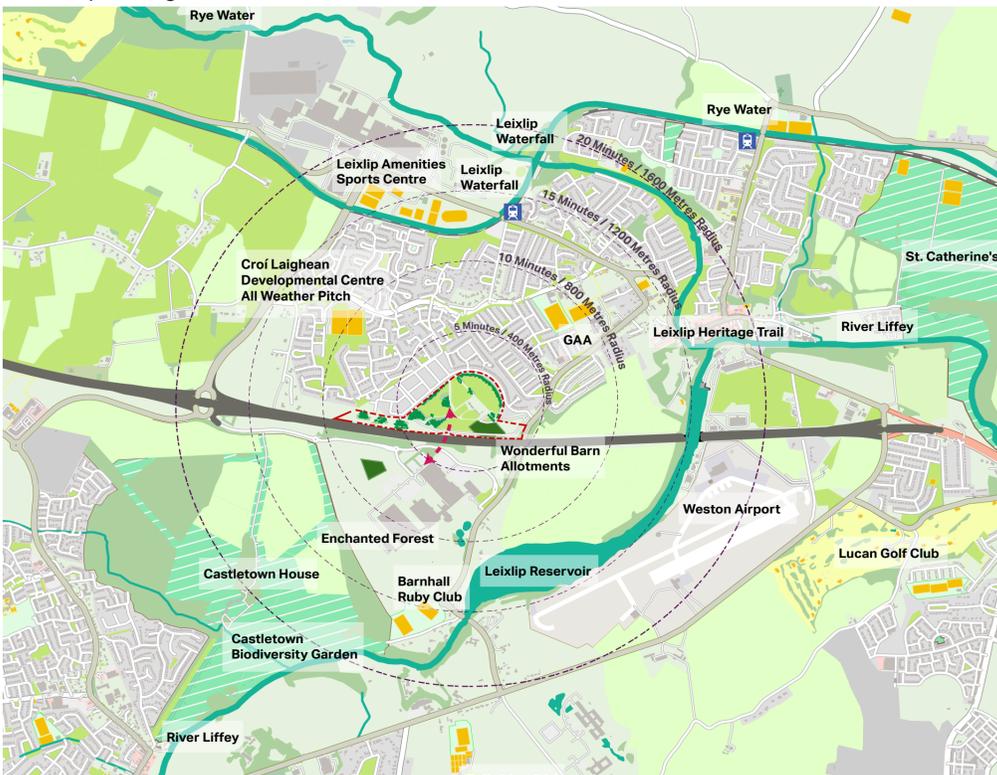
### Constraints

- Needs to consider the surrounding designations, ensuring a good connection to trails and green open spaces and incorporate strategic cycle routes.

### Opportunities

- Connections to surrounding designations offers opportunity to strengthen green corridors, links and routes as part of a co-ordinated and connected green space strategy.
- These surrounding designations ensure these spaces are protected from development and the site can provide an essential link between them.
- Wayfinding and legibility can guide and inform, creating links to adjacent green open spaces, cycle routes and trails.

### Landscape Designations



### Public Open Spaces and Amenities

The site is well situated to new residential development, and within a range of green open spaces, parks and green networks. It provides a useful green link to Castletown House, the Leixlip Heritage Trail and St. Catherine's Park to the north east of the site.

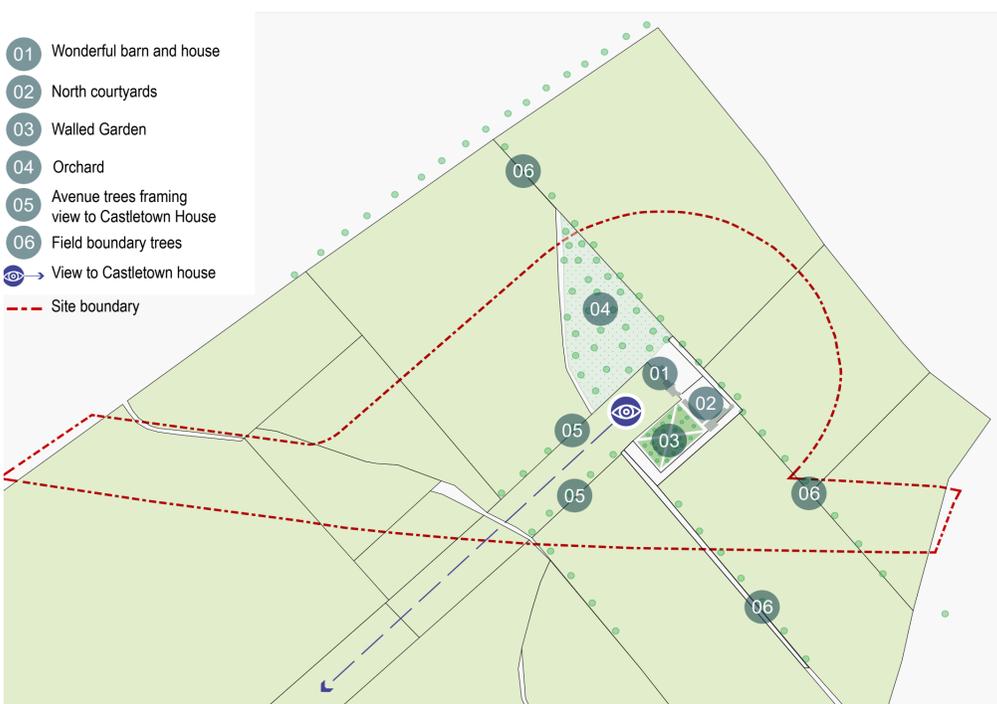
### Constraints

- Constrained by new development encompassing the northern periphery and the M4 motorway to the south.

### Opportunities

- Significantly enhance the green corridor / tree belt along the M4 boundary to aid screening motorway traffic, reduce noise and reduce pollution.
- Opportunity to create a linear park provide a range of community uses and amenities including play areas, cafe and seating within a parkland setting as part of the green corridor.
- Create greater spacial links and routes to the surrounding green open spaces and networks.
- Biodiverse landscape to provide wildlife habitat, strengthen tree groups and belts, a diverse landscape type throughout the park.
- Enhance the attractive setting for the Wonderful Barn, main house and potential cafe.
- Provide legibility and interpretation that guides, directs, and informs the new landscape and history of the site.

### Link to Public Open Spaces and Amenities

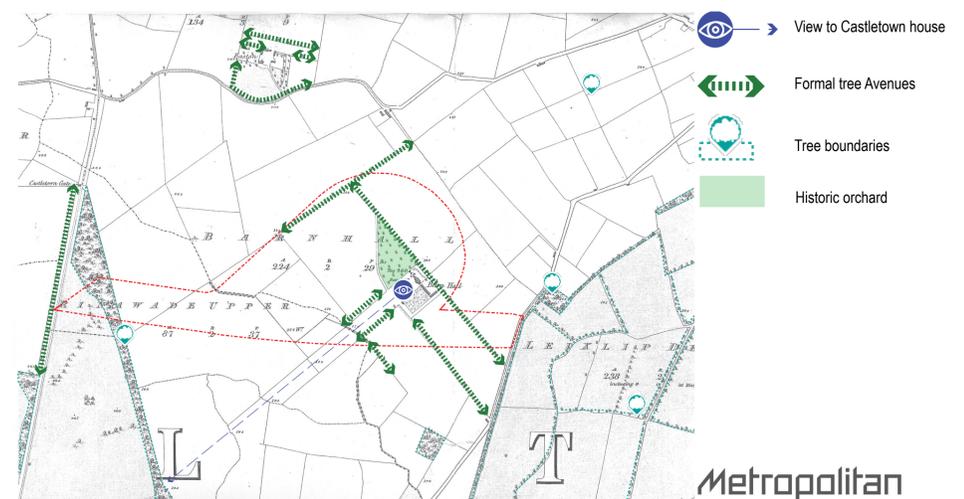


Historic plan with current site boundary in red

### Historic landscape and features on-site

The site is part of the wider historic demesne of Castletown House which has a direct view corridor towards the Wonderful Barn acting as a folly in the landscape. This is reinforced by the setting out of the field boundaries and the alignment of vegetation to some of the same. The layout illustrates the built form, as currently on site, and the adjoining courtyard garden to the south and orchard to the north east of the folly.

The site has since been severed by the M4, which aligns to the southern boundary of the site, which illuminates the opportunity to reinstate the original access road to the site.



## The Wonderful Barn & Park

We analysed the existing conditions on-site, the historical context, the circulation, existing tree planting, topography and key views in order to shape our conceptual design of the site.



Existing trees

### Existing trees on-site

The site is well stocked of semi-mature trees of native species. Their uses range from pathway avenue type planting, periphery planting, groups of formal planted trees and woodland blocks. Views into the park are sporadic where occasional breaks in tree groups around the periphery allow.

### Constraints

- Historical alignments and species selection to be considered.
- Trees define spaces, historical field edges, pathway avenues, periphery planting and woodland belts. In retaining the majority of trees, these mixed age trees retain the alignments and groupings that will need to be considered and avoid conflict with a new landscape design.

### Opportunities

- Additional planting opportunities, such as strengthening periphery planting and woodland belts and blocks, individual specimen arboretum style planting and urban orchard trees, which may have some special connection with a potential urban farm and allotment spaces.
- Significantly enhance the green corridor / tree belt along the M4 boundary to aid screening motorway traffic, reduce noise and reduce pollution.
- Additional woodland belts and groups can provide can emphasise key views, new views and create a continuous green infrastructure as a linear park.
- The introduction of a wider range of tree species, including non-natives, would provide a more diverse and resilient tree strategy.



Existing circulation on site and trees on-site

### Circulation on-site

The site is well served by surrounding roads and pathway networks, in particular the adjacent M4, the R404 with Barnhall Meadows to the northern periphery of new development. Barnhall Meadows Boulevard runs through the southern part of the site causing a separation of green space to the south west.

### Constraints

- Barnhall Meadows Boulevard is a temporary haul road for the new development and separates green spaces to the south west.
- M4 edges the southern boundary with traffic movement and noise affecting the site enjoyment.
- Proposed bridge link over the M4 to consider.
- A vehicle route from the main access intercepts through the walled garden, disrupting the historical value of the gardens, breaking the historic wall and original use/definition as a walled garden space.

### Opportunities

- Access into the site is well provided, and the networks of paths within the site offer a number of routes.
- Opportunity to improve the main access from the R404 and car park opportunities within the site.
- Existing pathways define movement patterns over time, however, some could be removed and replaced in line with a new landscape scheme. Those with strong axis should be retained, while others could influence realignments, removals and new pathways.
- New routes can be defined in the newly designed landscape, including shared cycle/pedestrian paths, to external links and spaces.
- The vehicular route intercepting through the walled garden could be removed, with the walled garden reinstated. Options are to be explored that reduce vehicle movement through the site whilst serving the main house and barn and potential cafe.
- Barnhall Meadows Boulevard could become a shared cycle/pathway route through the site.
- Potential for acoustic/noise barrier fence along M4 boundary.



Topography and views on the Wonderful Barn site

### Topography and Key Views

The site is generally gently sloped, with the high site levels to the north dropping by approximately 6m to the south. This enables good key views from the house and barn to the south, and a view axis north-west. The site has tree groups which hamper immediate views in and out of site, particularly in the north-west leading south, along the southern boundary to the M4 and sporadic tree planting to the east and main access point. These tree groups also present some seclusion within the site from the new development.

The Wonderful Barn is a viewpoint across the site, with key views to Castletown house framed by historic tree lines and views of the historic walled garden.

### Constraints

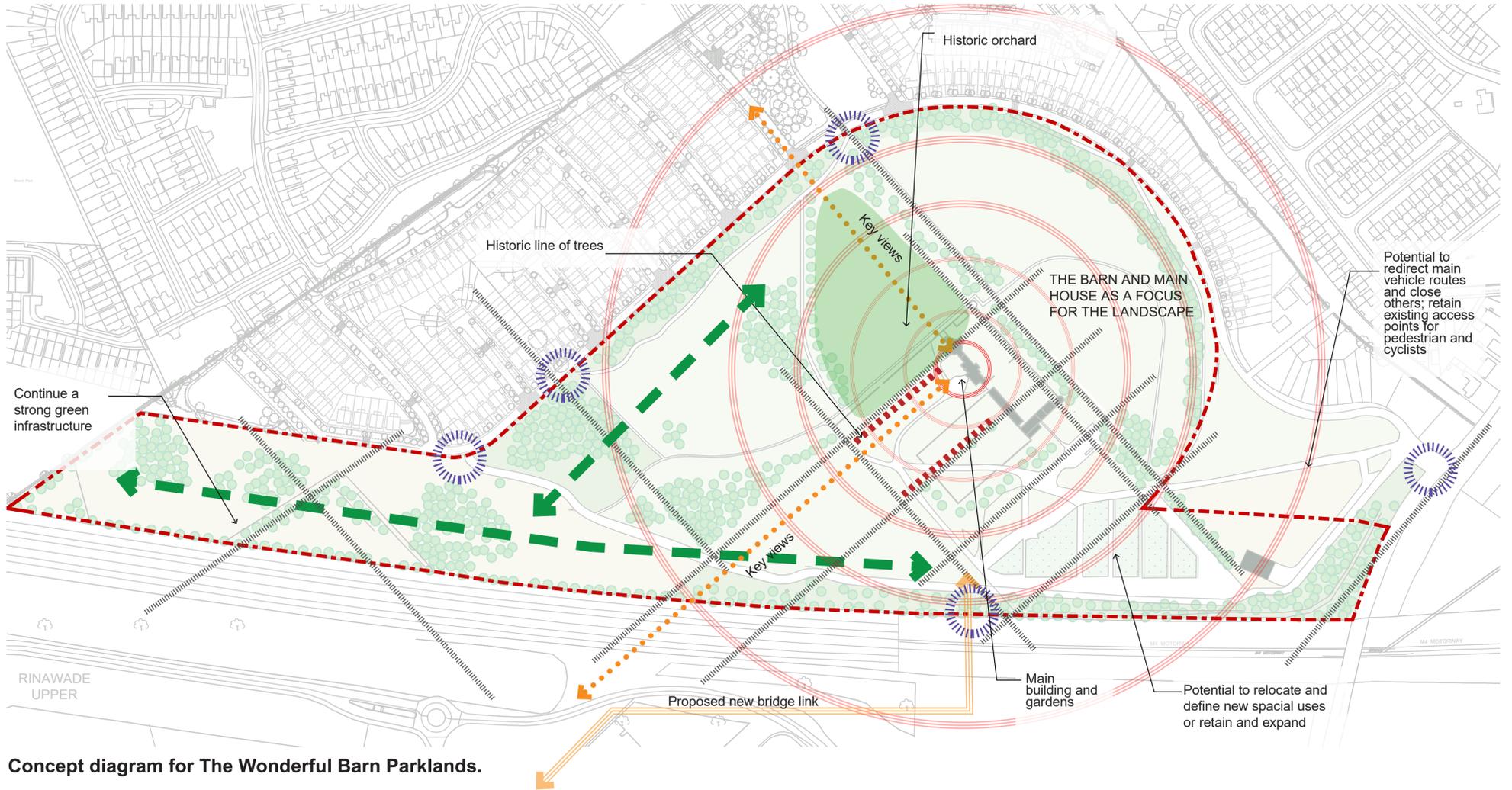
- Historical use and new uses restrict significant level changes.
- Key views should be retained.
- Existing tree groups limit views to the immediate surroundings.

### Opportunities

- The site is highly accessible without the need for retaining structures for new uses and offers good accessibility.
- Potential for sculptural landforms.
- Trees can be thinned, crown-lifted or removed if necessary to create views.
- Tree groups and avenues can be strengthened to emphasise and/or create new views.
- Reinforce historic view corridor to Castletown House to and from the Wonderful Barn.

# Concept Development 03

## The Wonderful Barn & Park



Concept diagram for The Wonderful Barn Parklands.

The conceptual development progressed after looking at the existing conditions and context, different land-use typologies, activities on-site, landscape approaches and landscape features were brainstormed to form the site. These formed the basis for the spatial layout in the design options.

To create the structure of the site we drew from the historic axis on-site, utilising the existing views and tree line to orient the site and ground the Wonderful Barn as the focus whilst taking into account historic landscape features.

### Key concepts:

- The Barn and main house as a focus for the new landscape design.
- Retain and enhance key views and consider the historical uses of the site.
- Retain and strengthen existing green and blue infrastructure.
- Opportunities for creation of new spacial arrangement for new uses.
- Minimising vehicle movement through the park.
- Opportunities for new pathway routes, cycle routes (and shared routes) through site to external links and trails.

### Potential circulation within Wonderful Bark Park



#### Circulation option 1

Retain existing main vehicle access into site, car parking and potential route to the main house.

Barnhall Meadows Boulevard becomes a shared pedestrian/cycle route.

Cycle routes and pathways influenced from existing.



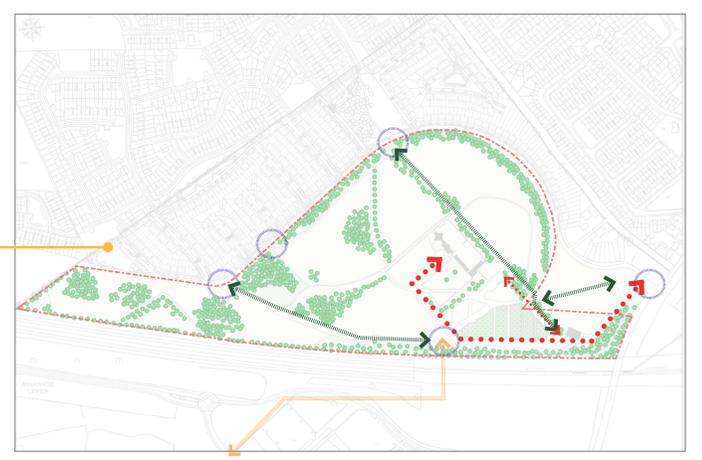
#### Circulation option 3

Vehicle access is restricted to the periphery of the site whilst still accessing the proposed cafe building with pathway/cycleway access to the main building and barn.

The existing vehicle access becomes the main pathway and cycle route.

Cycle routes and pathways influenced from existing.

Barnhall Meadows Boulevard becomes mostly a shared pedestrian/cycle route.



#### Circulation option 2

Vehicle access is restricted to the periphery of the site whilst still accessing the main building.

The existing vehicle access becomes the main pathway and cycle route.

Barnhall Meadows Boulevard in part becomes a shared pedestrian/cycle route.

Cycle routes and pathways influenced from existing.

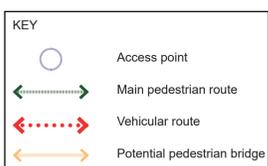


#### Circulation option 4

Retain existing main vehicle access into site, car parking and route to the proposed cafe as shared surface.

Cycle routes and pathways influenced from existing.

Barnhall Meadows Boulevard becomes a shared pedestrian/cycle route with a through route to the adjacent green space.



# Design Options

## The Wonderful Barn & Park

The spatial layout and typologies were determined through the prior research into the Wonderful Barn site conditions, the wider landscape and the concept development. The concept diagram with the historic axis and the main building and garden as the focal point helped to arrange the space and the circulation methods influenced how these design options would interconnect. Strengthening the green buffer on the southern boundary could include an acoustic barrier to reduce vehicle traffic noise from the M4.

Three different options were created and analysed for their advantages and disadvantages, see below:



### Option 1:

#### Advantages:

- Enables continuous green corridor along southern boundary.
- Community facilities - farm, orchard and play areas grouped as a link to the house, barn and proposed cafe.
- Allotments suitably located to new development, residential community and road access.

#### Disadvantages:

- Community allotment to the north of the buildings break the green space and is within key view to north-west.
- Allotment in primary parkland location and immediate views from house, barn and gardens.
- Allotment location is historical orchard location.
- Allotment location edged by existing tree groups to east and west, offering little scope for expansion.



### Option 2:

#### Advantages:

- Enables continuous green corridor along southern boundary up to main house and gardens.
- Community facilities - farm and play areas grouped as a link to the house, barn and proposed cafe.
- Allotments in existing location reduce costs with potential to expand.
- Community orchard reflects historical location and use.

#### Disadvantages:

- Less access to current allotment location for new surrounding residents to the north.
- Allotments in current location are remotely located from residential development - vehicle access would be limited to south east corner to minimise vehicular access into the park.



### Option 3:

#### Advantages:

- Enables continuous green corridor along southern boundary up to main house and barn gardens.
- Community facilities - farm, orchard and play areas grouped as a link to the house, barn and proposed cafe.
- Allotments suitably located to historic field boundary with potential expansion to existing allotment area.
- Community orchard reflects historical location and use.

#### Disadvantages:

- Play area in good location to parking but in primary entrance location.
- More fragmentation of spacial types, eg. play, community spaces etc.

### LEGEND

- Green corridor - woodland belt, open glades
- Open parkland with meadow and tree planting
- Kids/Teen areas
- Informal football pitch - 36.5m x 27.5m
- Skate park/ parkour - 150-500m<sup>2</sup>
- NPA - 300m<sup>2</sup>/ LPA - 100m<sup>2</sup>
- Seating/hangout area
- Community orchard
- New car parking location - 60 parking spaces
- Reconfigured entrance
- Biodiversity meadow
- Community allotments
- Urban farm Potential location
- Cafe and seating To architects design
- Strengthen green buffer
- Green connections
- Access locations

# Precedent images

05

## The Wonderful Barn & Park



Activities Trail



Natural Play - NPA & LPA areas



The topographic labyrinth



Leisure and sport facilities for active recreation



Informal lawn and meadow for passive recreation and biodiversity



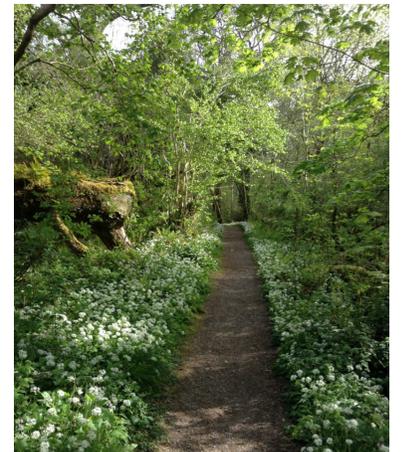
Sculptural mounds and landform



Venue for market and commercial activities



Open lawn for multifunctional use



Woodland Trail



Sculptural land forms



Allotment gardens



Fruit orchard



Estate landscape



Malahide House and Gardens - walled garden



Sustainable permeable paving

# Existing Allotments

06

## The Wonderful Barn & Park



### Existing Allotments

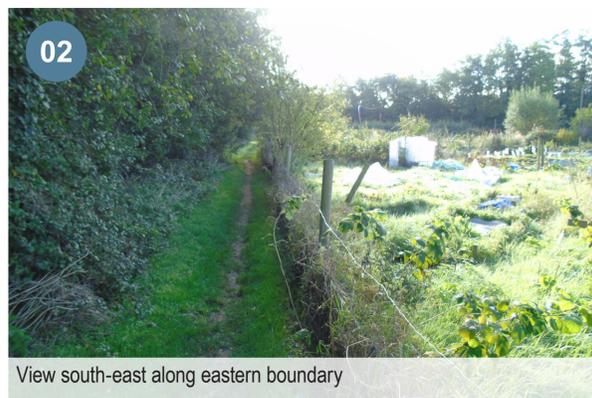
- The existing allotment space comprises approximately 62 allotments of varying sizes.
- Not all are fully utilised and edged by post and wire fencing - not secure.
- Additional features on-site include water butts, polytunnels and water posts.
- Vehicle access is restricted - locked gated access road with parking external to the allotments.
- Pedestrian access to individual plots is via grass paths.
- Varying sizes and condition.
- Good views to the Wonderful Barn.

### Allotments Analysis

- Location of allotment areas - suitability, access, capacity for future, adequate facilities.
- Needs to be adaptable to future demands - varying plot sizes, expansion / increase of area.
- Needs to provide adequate facilities.
- Needs good access - both vehicle and pedestrian, with adequate accessible parking and pathways.
- Site security - fencing types to perimeter of area and individual plots.



View west on approach road



View south-east along eastern boundary



Plots with post and stock proof fence



Plots vary in size, usage and condition



The Wonderful Barn views from allotments



Grass path along mesh fence to the haul road on southern boundary

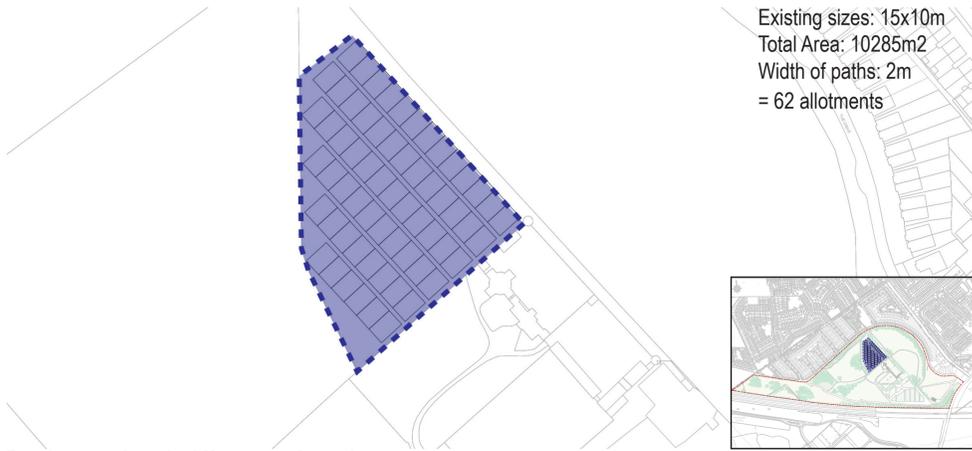
# Landscape Allotments

# 07

## The Wonderful Barn & Park

Allotments on-site are considered key for community engagement, continuing the legacy of food production and activating the site. The allotments could provide a range of sizes of plots to meet different lifestyle commitments. The plots shown can be further subdivided.

Four different configurations of allotments were explored based on the design options see below:



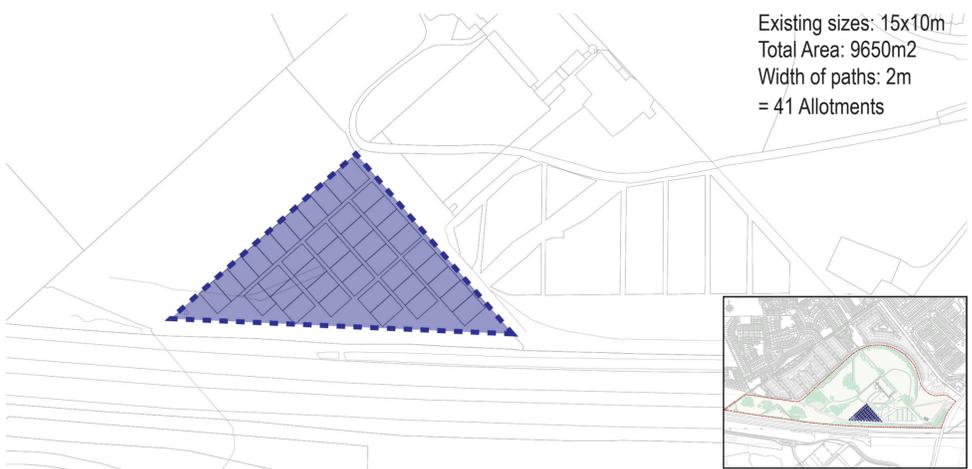
### Design option 1: Allotment location

This option explores relocating the allotment area to the previous historical orchard location. A standardised allotment space and configuration allows approximately 62 allotment spaces (equal to the existing number). However, located here is edged by existing tree groups to the field boundaries which may affect light access, risk of leaf litter and no scope for expansion without the requirement of tree removals to expand the area.



### Design option 2: Allotment location

Retains the existing location of the allotments, however, a slightly expanded area and are reconfigured to more formalised sizes totalling 74 spaces.



### Design option 3: Allotment location

Expanding the allotment area would increase a potential additional 41 allotment spaces.



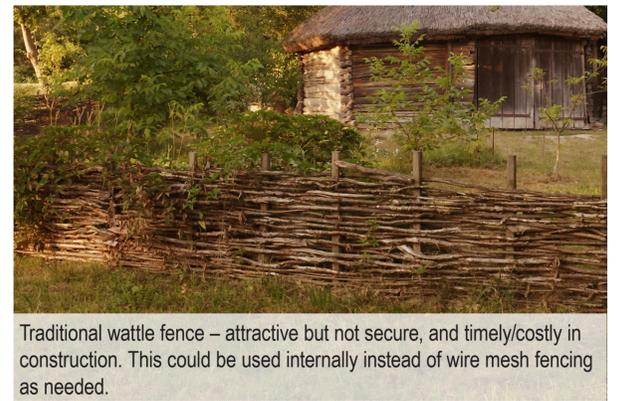
### Existing Allotments

The existing allotment space comprises approximately 62 allotments of varying sizes. Standardising the plot size would reduce to approximately 41 allotment plots.

### Boundary treatment

As well as the most appropriate location for allotments in terms of user access, circulation, access to light and leaf litter considerations, the boundary treatment is also an imperative consideration. The boundary treatment is to consider security, access, if natural visual surveillance is required, and the look and aesthetic of the boundary, whether it is attractive and is in keeping with the site – it is a balance of all of the above.

Options include:



### Features

Sheds, communal seating spaces that are accessible and using local resources for compost, communal water butts to be utilised as the primary water source on-site. Stemming from the biodiversity crisis, incorporate a variety of plants and flowers in allotments that will encourage pollinators and other wildlife to use the green space and support ecosystem services.

Features of the allotments in the site development would include:

