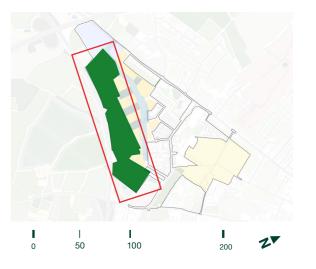




Design rationale

Brook Leys









Green and blue infrastructure

Brook Leys is an important ecological and amenity asset for North West Cambridge. The Washpit Brook corridor is a valuable home for wildlife and supports much of the schemes' SuDS strategy, managing water as it naturally flows towards the brook. Growing and play areas are nestled within a large scale natural setting with an emphasis on habitat creation. Excess soil from site building works will be reused to form gentle landforms west of the Washpit Brook.



Movement

Completely free of vehicular traffic, Brook Leys features a range of cycling and pedestrian pathways. Residents and visitors to the site are invited to explore the large and varied landscape.

As part of the amenity strategy, a 5km and 10km running route looping around the site and through Brook Leys has been developed to respond to the existing communities passion for running.



Built form

The Western Frontage faces Brook Leys. Buildings define an articulated skyline. The frontage includes massing gaps for visual permeability albeit keeping them narrow to block the noise from the M11. Deck access and stacked maisonette blocks provide opportunity for openable windows to the eastern façades. Defensible space including planting and low boundaries promote visual and social engagement. Habitable rooms, private amenity and openings that allow for passive surveillance and engagement with neighbours.

Strategies

Brook Leys

Green and Blue Infrastructure

Planting and drainage

Multi-stem tree Wayfinding/landmark tree Fruit tree Rain garden bed Linear rain garden Junction tree Specimen tree Woodland / informal tree

Green and Blue Infrastructure

Community and amenity

Informal open space Growing/ productive area Play area

Movement

Primary pedestrian/cycle route Secondary routes - Roads Green informal pathways Existing active travel routes

Built Form

Building Public realm



informal tree groups









Existing riparian, woodland

Brook Leys supports much of the surface water drainage management with swale connections and detention basins designed with carefully controlled greenfield run off rate connections into the water course.





Excess soil will be utilised on site to create landforms in the northern section of Brook Leys, creating another distinct landscape character.

Informal recreation is provided through Brook Leys, linking site-wide amenity loops and inviting residents to explore the natural spaces on their doorsteps.

As a place to be active and care for the body, it is important that Brook Leys also provides mental stimulation through the integration of public art. Public art within Brook Leys may also support wayfinding and identity. Structures or public art that engage people with nature and the landscaped conditions of the site.





provide endless exploratory routes for runners, cyclists and more. These link into the rest of the site through the Shared Gardens and other points of connection to movement routes.

In order to allow nature to thrive within Brook Leys, some areas will be less accessible or completely protected from human activity.



Buildings define a clear frontage facing the countryside and long views. Breaks in the massing of through the Shared Gardens allow Brook Leys' boundary to move up and into the development, blurring the line between natural and built.

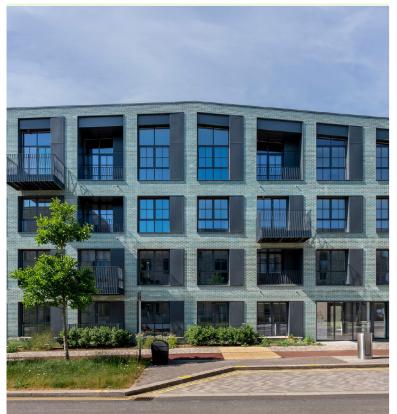
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and grassland habitats are retained with enhancement opportunities, along with new extended habitat creation. Grassland, wet/dry zones, scrub, tree groups and individual specimens are layered, bringing multiple benefits for biodiversity, visual amenity and a strong sense of place.

Massing and character

Brook Leys





Varied roof forms bringing variation to the skyline along Brook Leys.



Massing gaps, stepping and legible roof forms denote entrances to the Shared Gardens.





Compression of massing providing acoustic protection to dwell spaces and play space within the Shared Gardens.



Access

Inclusive design aims

North West Cambridge is designed to be as inclusive as possible so that it can be comfortably and independently used by residents, people working in and visiting the site, and the wider community.

North West Cambridge aims to incorporate the following access principles:

- To design inclusively, which means placing people at the heart of the design process and acknowledging diversity and difference;
- To maximise access to all parts of the development and its facilities for residents and visitors regardless of age or disability;
- To ensure that required standards for accessibility are met at the outset and as part of mainstream inclusive design;
- To consider design guidance stated in relevant British Standards and other current good practice guidance about meeting the requirements of disabled people; and
- To meet the aims of the Equality Act (2010), where applicable.

Inclusive design guidance

Planning Policy

The following list sets out the national, regional and local policy regarding access and inclusive design that applies to the scheme.

 National Planning Policy Framework (NPPF), Ministry of Housing, Communities & Local Government, 2024.

The NPPF sets out government's planning policies for England and how these are expected to be applied.

 Cambridge Local Plan, Cambridge City Council, October 2018.

It sets out the vision, policies and proposals for the future development and land use in Cambridge.

South Cambridgeshire Local Plan, 2018.

It sets out a number of general design criteria including that proposals must provide safe and convenient access for all users and abilities to public buildings and spaces.

North West Cambridge Area Action Plan, October 2009.

The North West Cambridge Area Action Plan relates to the land between Madingley Road and Huntingdon Road.

Building Standards & Good Practice Guidance

There are no national regulatory controls governing extended external spaces and landscaping other than Best Practice Guidance.

For primary routes and approaches to buildings Approved Documents M are taken as a benchmark for determining accessibility.

- The Building Regulations 2010, Approved Document M (Access to and use of buildings) Volume 1: Dwellings, HM Government, 2015 edition incorporating 2016 amendments.
- The Building Regulations 2010, Approved Document M (Access to and use of buildings) Volume 2: Building other than dwellings, HM Government, 2015 edition incorporating 2020 and 2024 amendments.
- The Building Regulations 2010, Approved Document K (Protection from falling, collision and impact), HM Government, 2013 edition.

With regards to streetscape and pavement design, main guidance is in the following documents:

• British Standard 8300:2018 Design of an Accessible and Inclusive Built Environment.

Part 1: External Environment - Code of Practice, Part 2: Buildings - Code of Practice, British Standards Institution, 2018.

 Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure, Department for Transport, December 2021. The Scheme has also considered other good practice publications in relation to inclusive design. Key documents include:

- Cycle Infrastructure Design: Local Transport Note 1/20, Department for Transport, 2020.
- Inclusive Urban Design: A guide to creating accessible public spaces, David Bonnett Associates, BSI, 2013.
- A good practice guide to disabled people's access to the countryside – Countryside path network guidelines, Fieldfare Trust, 2005.
- Cycle Parking Guide for new residential developments, Cambridge City Council, 2010.
- A Guide to Inclusive Cycling (fourth edition), Wheels for Wellbeing, 2020.
- The principles of inclusive design. CABE, 2006.
- Designing for Accessibility, CAE/RIBA Publishing, 2012.
- PAS 6364 Design for the mind Neurodiversity and the built environment - Guide. British Standards Institution, 2022.

Access standards are in a continuing state of development because of changing expectations and legislation. The nature of these changing requirements and standards can result in anomalies and contradictions. Therefore it is important that access and inclusivity are considered and refined throughout the design process. The design of the scheme has sought to interpret these standards to provide the best possible level of inclusive design.

Strategies for inclusivity

Movement

Easy to navigate

Open spaces, buildings and other features have been positioned to enable easy navigation without confusion, and being legible from the point of arrival at the site. There is a clear structure of routes with a distinctive character which helps with legibility and wayfinding when navigating the scheme.

The site is structured east to west through the Shared Gardens that provide a natural link from the urban Cartwright Avenue to the wild Brook Leys, on-plot streets that provide vehicular, as well as pedestrian and cycle access to the buildings, and Cartwright Avenue, the principal vehicular route running north to south. The network is coupled with a sequence of spaces that offer opportunities to socialise and enjoy.

Natural features such as the veteran oak, retained from the original site, will be used to help wayfinding and orientation within the development.

A wayfinding strategy will be developed at the appropriate stage and will be logically integrated to the development. The wayfinding system will consider the best practice guidance in terms of inclusivity.

Horizontal and vertical movement

The scheme has been designed to ensure there are stepfree routes to all buildings and open spaces, and means of horizontal and vertical movement are appropriate given the topography of the site.

The Design Codes - Levels set out that pedestrian routes should be level or as shallow as possible, and if the topography does not allow level routes, gradients should not be steeper than 1:21 and should include level landings every 500mm rise.

Where the topography is too steep to be resolved with gentle slopes, stepped and ramped routes will be integrated as part of the landscape design, and stepped and ramped routes will have equal importance and both will be convenient and direct.

Access routes will consider the requirements of all users, regardless of their abilities or age, so that they can be comfortably and independently used by all. Key access provisions will include:

- Footways and footpaths will be as wide as practicable, and no less than 2000mm wide, to accommodate a wide range of users, including two wheelchair users crossing each other, even if they are using larger electric mobility scooters.
- Footways and footpaths will have firm, slip-resistant and reasonably smooth floor surfaces that are suitable and safe to navigate for all users. Tactile paving will be included where appropriate to provide warning, guidance or information to people who are blind or partially sighted.
- Footways and footpaths will be clear of obstructions such as cycle stands, lighting columns, etc.; and will avoid street clutter.
- Pedestrian routes and open spaces will be well-lit to support a safe environment for all.

Pedestrian priority

The scheme discourages the use of individual cars in favour of active forms of travel. The road layouts, traffic calming measures and parking location are designed to discourage their use.

Vehicular routes are kept on Cartwright Avenue and on-plot streets, keeping the Shared Gardens and Community Lane car-free.

Different modes of travel will be clearly differentiated for the safety of all users on Cartwright Avenue and on-plot streets. Shared use of pedestrians and cyclists is proposed on carfree routes. Footpaths will be 3000mm wide as a minimum, as recommended by the Cycle Infrastructure Design, LTN 1/20 by DfT.

Pedestrian crossings will be provided at reasonable intervals and be designed so as to prioritise the safety and comfort of pedestrians, for example through raised tables or other forms of pedestrian crossing prioritisation, in particular in corners or key crossings including connection to the Community Lane.

Strategies for inclusivity

Uses

Different uses for all

The scheme provides a variety of spaces that accommodate the needs of different people, from active play areas to quiet spaces of different sizes with consideration for those who require gentle sensory experiences or need to rest.

Sports and amenity facilities have been connected with a series of routes that connect the neighbourhoods and open spaces. See Appendix - Sports and amenity technical plan.

Resting areas at regular intervals will be provided within the landscape and public realm to enable people to rest and to allow for a variety of activities, from big groups to gather to more quiet spaces for contemplation and relax.

As set out in the Design Codes, seating will include a variety of options, some with armrests and backrests, seating with different seat height, seating that allows wheelchair users to transfer to a bench, and space for wheelchair users to be integrated in the general seating provision.

Inclusive Play

Play areas will be designed to be inclusive and accessible for people with a variety of impairments. They have been included along routes connecting neighbourhoods and open spaces. The site provides a network of play areas, some with play equipment while others are engaging playable spaces.

As set out in the Design Codes, play areas will include sensory play opportunities, including visual, audible and tactile experiences, and will include elements within easy reach for a variety of users, such as seated, standing and of different heights.

Play areas will also consider the needs of parents and carers, with accessible observation points, and accessible seating.

Health and well-being

It is one of the pillars of the scheme to provide a close connection with nature, as it is proved to have a restorative effect on people, improving psychological wellbeing and reducing physiological stress.

The site provides a network of open spaces for people to connect with nature, alongside areas which are more protected to support the natural world.

To promote health & wellbeing there is a variety of amenity offer:

- Formal sports and leisure, informal fitness and running trails;
- Equipped play, playable spaces and play on the way;
- Productive and edible landscape linking allotments, and community gardens with growing spaces brought close to homes;
- Provision of nature on the doorsteps.

Strategies for inclusivity

Approaches to buildings

Means of access to the buildings

Approaches at street level to all entrances will be direct and convenient, with level thresholds and step-free routes.

Where level changes are present on-plot, the strategy is to provide level access to buildings from the upper level, and access via steps and ramps from the lower level. Internally, access from both sides will be connected.

When approaches to entrances will be provided with stepped and ramped routes, both routes will be direct and convenient and have equal importance.

Parking and drop-off

Car parking spaces will be accommodated using a variety of solutions such as on-plot / on-podium, or on-street, so they are located in each instance close to the entrances of the buildings they serve. Visitor parking will be accommodated along Cartwright Avenue, in addition to the temporary occupation of free spaces within Neighbourhoods.

Accessible car parking will meet dimensional and other specifications set out in Approved Document M and BS8300-1 and be convenient to use. As far as practicable, travel distances from Blue Badge bays to the building entrances will be maximum 50m as recommended by the Inclusive Mobility Guidance.

Acknowledging that some residents, staff or visitors may rely on community transport, taxis or minicabs as means of transport, there will be drop-off opportunities close to the entrances of all buildings.

Drop-off points will meet dimensional and other specifications as set out in BS8300-1 and be designed to suit older and disabled people using vehicles equipped with on-board devices such as tail and side entrance ramps and lifts, and allow for safe independent access and exit to a car.

Inclusive Cycling

The scheme includes provision for cycle infrastructure to promote active travel, including inclusive cycling. Short-stay cycle parking is integrated within the public realm, while long-stay parking is provided in safe, secure and covered cycle stores within buildings.

Cycle parking will include parking for non-standard cycles and mobility scooters to take into account all user needs and cater for different types of cycles, such as accommodating handcycles, tandem bikes and cargo bikes.

Strategies for inclusivityBuildings

Buildings

All buildings will be built to the highest access standards to support Cambridge's objective of creating inclusive, environmentally sustainable communities.

The built form will have different character depending where buildings are located which will assist with wayfinding and easy identification of buildings.

The key access provisions that all buildings will provide are:

- **Entrances** Direct and convenient approach at street level to entrances where practical;
- **Circulation** Step free access to terraces and external amenity spaces;
- Lifts To be provided where required;
- **Amenities** All communal facilities to be inclusive and convenient to all;
- **Toilets** Wheelchair-accessible sanitary facilities where sanitary accommodation is provided;
- **Emergency evacuation** Safe and dignified means of escape for all building users.

Accessible Housing

All dwellings are to be designed so that people can use them safely, easily and with dignity. They are to be designed to provide a wide choice, type and mix of housing to meet the needs of different groups and be capable of easy adaptations to meet the changing needs of people. In line with Policy 51: Accessible Homes of the Cambridge Local Plan 2018, all housing developments will be designed to meet Building Regulations M4(2) 'accessible and adaptable dwellings'.

Conclusion

Eddington is a place that has a thriving and growing community and sets the tone for future development in Cambridge. The success of the first Phase of North West Cambridge has provided the Design Team with lessons learnt and a framework to work from to develop the nex chapter for Cambridge.

The University of Cambridge, a long term Steward of the site remains committed to developing and managing the Future Phases of North West Cambridge.

The proposals have been supported by research done in collaboration with the University of Cambridge which explored how shared public spaces can foster social cohesion and support healthier lifestyles.

The Future Phases will see the development zones that interface with Phase 1 delivered first. With a phased delivery moving north through the Neighbourhoods and Shared Gardens, followed by the Innovation street and finishing with Gravel Hill.

At the heart of the proposals the Design Team have underpinned three place principles:

Fostering healthy living together

Over the past decade, there has been a growing recognition of the importance of social sustainability. The design of the public realm reflects a post-pandemic understanding of the vital role outdoor spaces play in supporting individual well-being and community cohesion. The proposal creates places that are close to nature, encourage people to linger and connect, support walking, cycling, and active lifestyles, stimulate the mind, promote healthy diets, and offer a welcome respite from the pervasiveness of digital life.

Reducing Whole place Carbon

While much of the carbon impact will be determined in later design stages—through material choices and detailing—the proposal sets an early commitment to carbon reduction. In response to the climate emergency and the University's sustainability goals, the design incorporates efficient building envelopes, mid-rise forms (4–6 storeys), reducing earthworks, nature-based solutions, above-ground parking, and a strong emphasis on active travel.

Designing for present and future

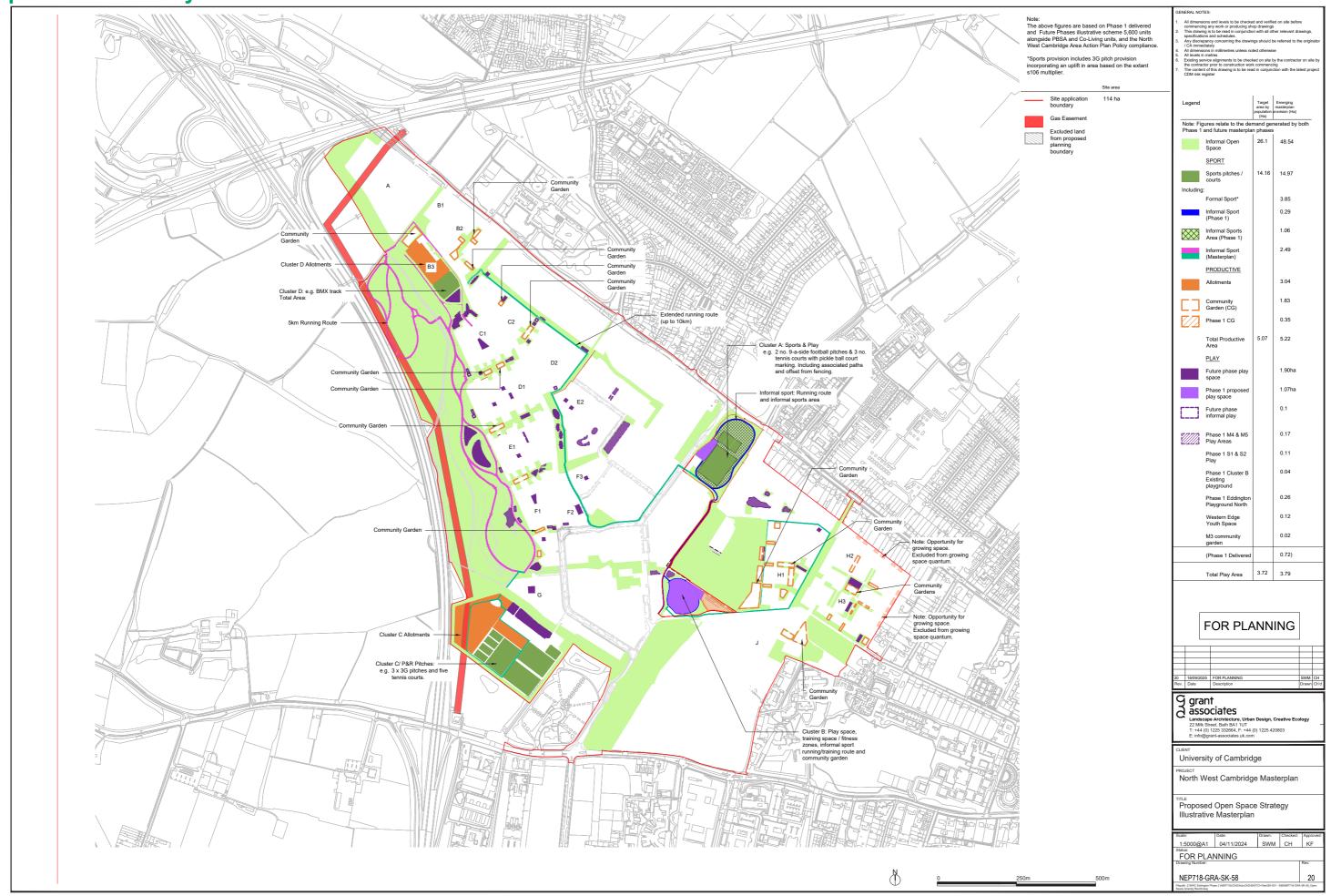
The proposals embraces a regenerative ethos, creating biodiverse, low-maintenance landscapes that work with the natural topography and water run offs. It integrates adaptable energy and water systems that can evolve with technological advancements, ensuring long-term resilience and sustainability.

The Future Phases of North West Cambridge in numbers* #Regen ethos target c.20% biodiversity net gain homes <2mins from 40% -play areas homes <2mins open space -community growing from open space 2.8 ha 1.5 ha non-linear open space #Regen ethos buildings working to optimised envelope 80 l/p/d water consumption 100% homes with recycled water 10 km **7** km new mobility #Regen ethos pedestrian cycle routes hubs only routes SuDS #Walking and cycling #Walking and cycling #Walking and cycling

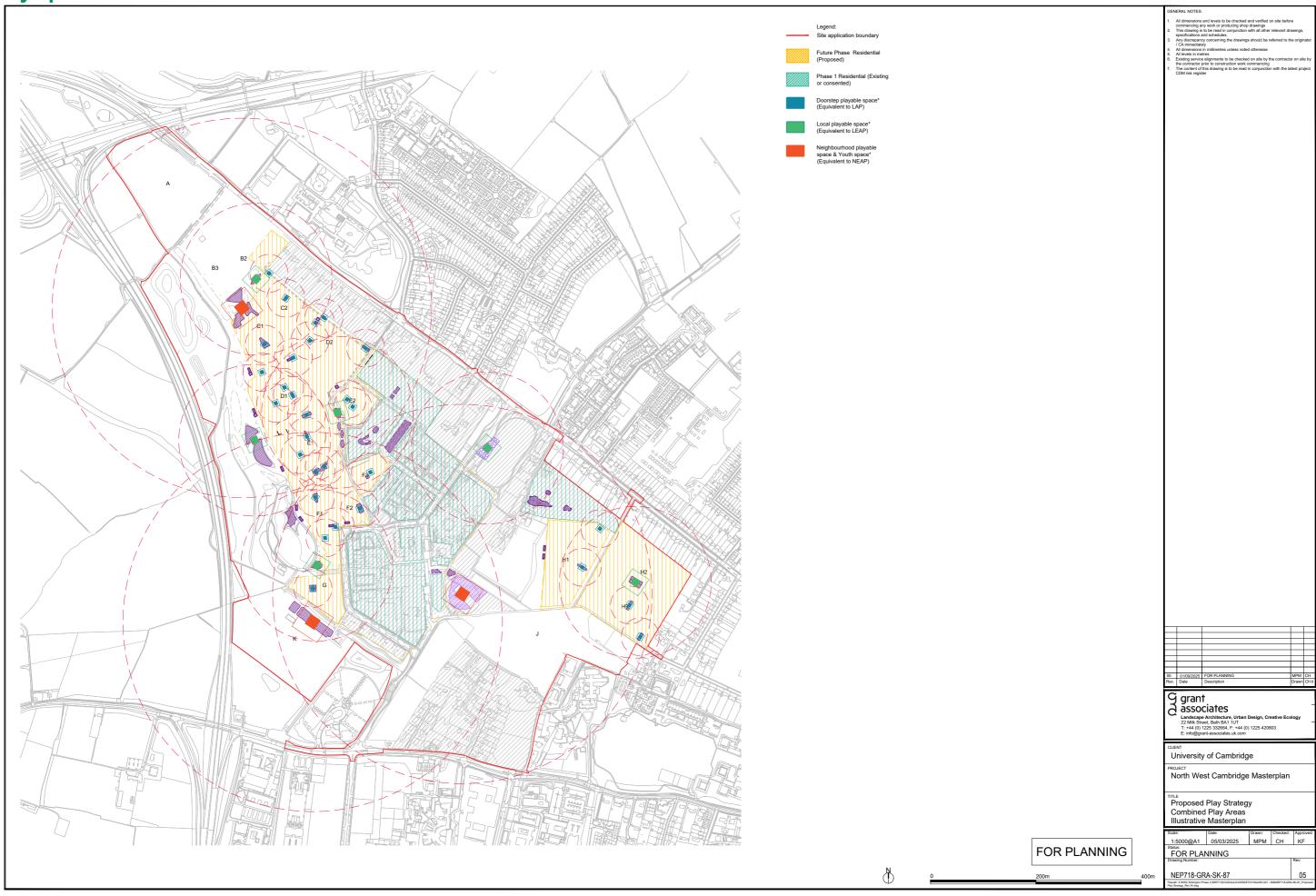
Appendices

Sports and amenity technical plan
Play space technical plan
Spatial Complexity technical analysis sunlight
Spatial Complexity technical analysis wind and microclimate

Sports and amenity



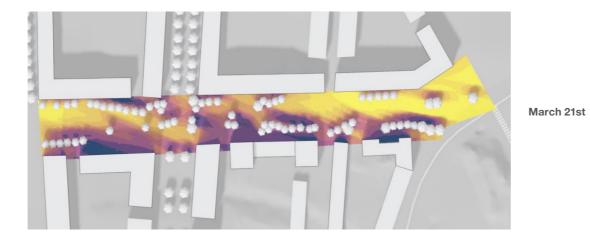
Play space

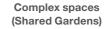


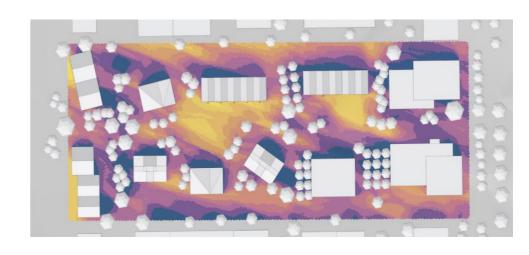
Spatial complexity Technical analysis Sunlight

The Shared Gardens have shown more nuanced conditions in terms of access to sunlight. Linear spaces broadly have sun in the northern half in the equinox and full access to sun in late spring. Geometrically complex spaces include a number of conditions, and pocket spaces of shade and sun for a larger span.

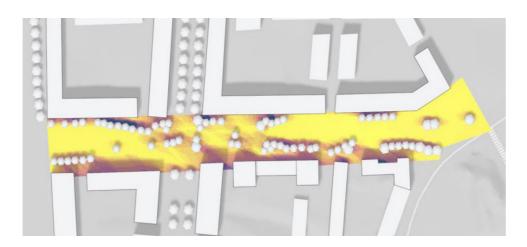
Linear spaces (Green Fingers)



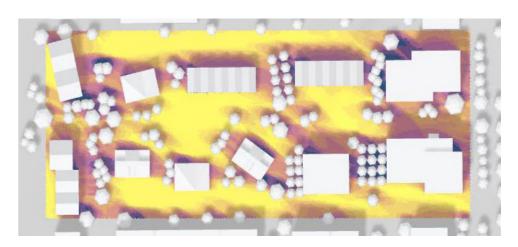




March 21st



May 21st

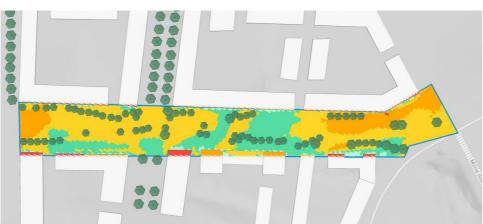


May 21st

Spatial complexity

Technical analysis Wind and microclimate

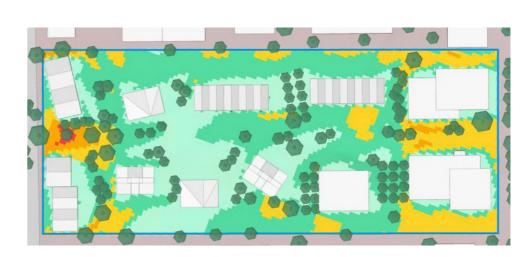
The Shared Gardens have shown better wind and microclimate conditions for dwelling whereas linear spaces are comfortable for strolling. These differences reflect and reinforce the psychological effect of linear space inviting movement versus spaces with more even proportions creating points of focus and sense of enclosure inviting people to dwell.



Linear spaces

(Green Fingers)

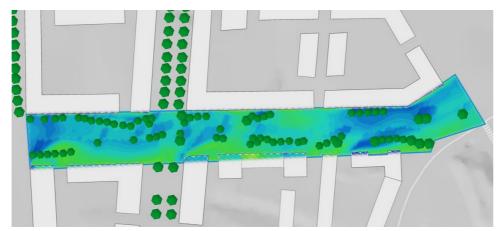
32 % of site is comfortable for sitting and strolling



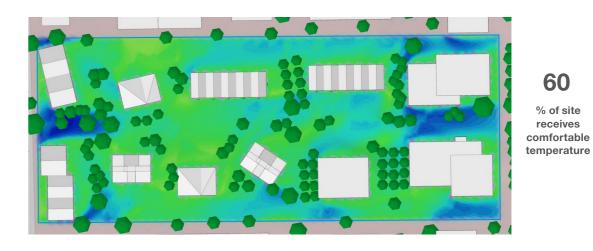
Complex spaces

(Shared Gardens)

77 % of site is comfortable for sitting and strolling



29 % of site receives comfortable temperature



60 % of site receives

Wind Analysis

Microclimate Analysis

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Consultation and design evolution

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