

## Chapter 5.

## Design Proposal

*This section describes the elements of the proposed design, explaining site-wide principles and more local key features, which together enable the creation of a richly varied and characterful place for both residents and visitors to enjoy.*



A DEVELOPMENT  
BUSINESS

BroadwayMalyan<sup>BM</sup>

DESIGN AND ACCESS  
STATEMENT

# Illustrative Masterplan

The site’s features provide plentiful opportunities to deliver a welcoming and attractive new community, which integrates seamlessly into the existing landscape and makes best use of its features. The illustrative masterplan highlights these key elements and indicates how they could inform the design response:

## The retention of woodland corridors and the restoration of hedge lines

- Providing a compartmentalised, wooded framework to the development, defining its layout and character;
- Restoration of the historic field pattern, referencing the past and enhancing the relationship with the landscape to the east;
- Natural filtering of views within and into the site, and across the layout as the vegetation matures;
- The provision of attractive recreational routes;
- Enhanced biodiversity and habitats.

## The retention of the Green Lanes

- Providing an intimate and tranquil setting to reinforce the ‘ancient’ qualities of the landscape.
- A lower density, wooded part of the layout, to provide for a transition to the rural edge and to provide for better assimilation in the setting of the Historic Natural Landscapes to the east.

## The multi use drainage areas

- Provide a transitional zone between development and the Historic Natural Landscapes.
- Provide a naturalised, attractive area of wetland landscape, comprising channels, swales, wet / dry basins and open space.

## Views

The view out of the the site towards Holy Trinity Church, Rayleigh has influenced the morphology of the concept layout. In particular this provide an opportunity for a straight, legible street network, capturing this view and tying the neighbourhood into its wider surroundings.

As discussed in the Built Heritage Statement, the distant relationship of the Church with the site means that no potential impacts of the proposals on its significance are identified.

## The location of the central green

A community hub (comprising a healthcare, sports and early year’s facility) is located in the centre of the site, overlooking a village green. The hub is close to existing and new housing and therefore accessible to all residents.

## The spine street

The main spine street follows the contours of the land and is set out in a simple, legible route, which will aid legibility. Some deviation is shown to encourage slower driving speeds. A new bus link will connect into Stadium Way and Daws Heath Road. Bus stops will provide a convenient and accessible service.

## Pedestrian routes

There are multiple new walking and cycling routes through the site, which cover the full extent of the site, encouraging residents to walk and enjoy their surroundings. Our proposals integrate into the existing walking network and strengthen cycle and pedestrian connections into the wider area.

## Key

1. New vehicular access
2. Existing vehicular access retained, serving existing property only
3. New pedestrian access
4. Spine street
5. Bus and emergency vehicle link
6. Spine street alignment oriented on Rayleigh Church
7. New healthcare facility
8. New community facility
9. New early years facility
10. Focal village green
11. Childrens' play provision
12. Allotments
13. Community orchard
14. Retained woodland
15. Retained hedgerow
16. Landscaped corridor with new planting
17. New planting along boundary with existing neighbours
18. Existing lake retained
19. Sustainable drainage basin







# Healthy living strategy

Our aim is to create a place that is designed to allow all residents to live a happy and healthy lifestyle. Our strategy to achieve this is founded on two key aims: encouraging physical activity and allowing residents to connect with each other and with nature. This spread summarises the key elements of this strategy and what it is inspired by. More detailed information is set out over the next few spreads.

Our multi functional open space provides layered, connected functions at the same time and at a range of different scales. The plan opposite shows a mosaic of interconnected network of semi natural green open space for the benefit of people and wildlife. Our multi-functional strategy features a wide range of different spaces, to appeal to a diverse audience and to encourage a healthy lifestyle. Those elements are marked on the plan and include:

- A village green, which will form a focus of the new community, having a small play area and the ability to be used for other informal recreational events linked to the community / sport hall such as yoga / pilates;
- The retention and augmentation of existing trees and hedgerows to create a series of interconnected planted corridors;
- Multifarious wildlife habitats to allow for movement, such as fenland meadows, grassland, a lake, ponds and swales;
- An edible landscape area with an orchard, growing gardens and wildflower meadows to create a place for people to meet and grow their own food, but also create biodiverse habitats;

- A series of paved and gravel recreational trails that are suitable for a wide range of abilities; from short walks with fitness equipment, to longer distance trails through the adjacent Nature Reserve and beyond; and
- Play areas for all ages interspersed throughout the site, with some natural, informal play areas located on the edge of the woodland.

In order to achieve our two healthy living aims of encouraging physical activity and allowing residents to connect with each other and with nature, our masterplan proposals are explained in relation to the four themes listed below. These are explained over the following few spreads.

- An active community
- Essential contact with nature
- The freedom to play
- A productive landscape

## Key

1. Fitness trail
2. Village green
3. Orchard
4. Community growing gardens / allotments
5. Fishing lake
6. Green lane

-  Equipped play area
-  Natural, wetland play area (with wildflower meadow)
-  Swale
-  Pond
-  Wetland edge planting
-  Main street
-  Bus only link
-  Retained access







## An active community

The 20 minute neighbourhood is defined by the Town and Country Planning Association in their recent guide “Creating Healthier, Active, Prosperous Communities” as a place in which most of people’s daily needs can be met within a short walk or cycle.

### The 20 Minute Neighbourhood

The 20 minute neighbourhood model, as advocated by the TCPA, recommends that a place can readily become a 20 minute neighbourhood, if it is “complete, compact and connected.”

A compact neighbourhood is defined as: “one in which land is used efficiently so that buildings are distributed appropriately for their uses.”

The National Model Design Code states that a compact neighbourhood: “is more likely to accommodate enough people to support shops, local facilities and viable public transport, maximise social interaction in a local area, and make it feel a safe, lively and attractive place. In this way, it may help to promote active travel to local facilities and services, so reducing dependence on the private car.”

Compact neighbourhoods can often be best achieved in low to mid rise developments and a key issue is footprint coverage, rather than building scale. Terraces, for example have an efficient plot footprint and therefore encourage walking and create a friendly, compact neighbourhood.

Research undertaken in Australia shows that 20 minutes is typically the maximum time that people there are willing to walk to meet their daily needs, with a 20-minute journey representing an 800 metre walk from home to a destination, and back again.

The benefits of this approach are wide reaching and include:

- People choose to stay in the neighbourhood for longer as they are diverse and cater for a wide range of needs/lifestyles;
- People become more active which improves mental and physical health;
- Traffic is reduced, and air quality improved;
- Local shops facilities benefit from increased patronage;
- People connect with nature and see more of their neighbours, strengthening community bonds;
- Neighbourhoods become generally safer for all, but particularly children, due to the points above.

### Emerging Societal Trends

Over the past two years, we have had to learnt to live with Covid-19 and the associated lockdowns have accelerated a more flexible living-working culture that is likely to stay. Access to local facilities and green and natural space has become even more important for peoples’ wellbeing.

In this new neighbourhood, people are more likely to work flexibly in terms of time and place and to work from home.



TCPA’s characteristics of a 20 minute neighbourhood

Staying local, and choosing not to commute brings a greater demand for outdoor space, walking, cycling, live-work spaces, better digital access, and more comfortable and energy efficient homes.

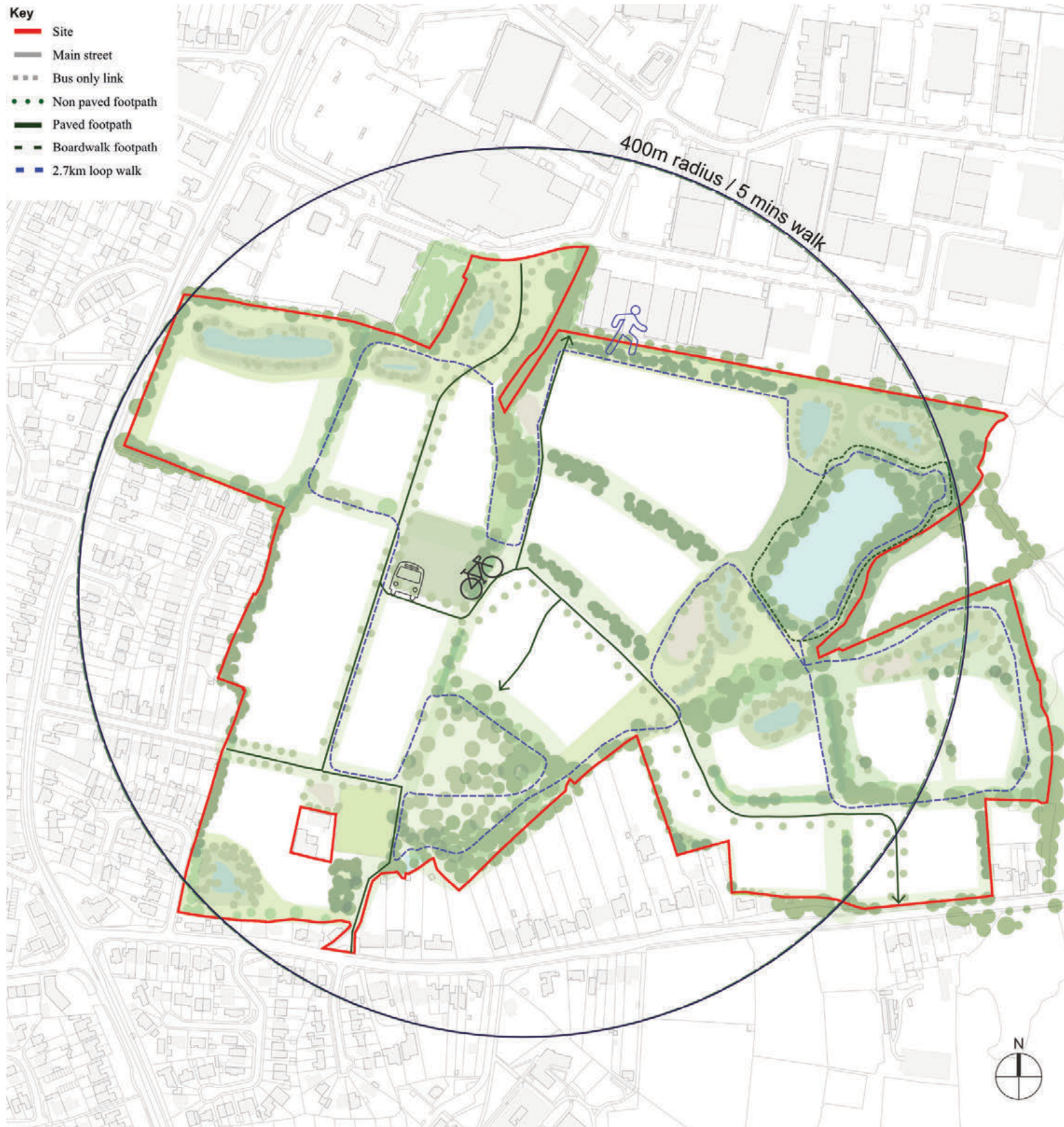
This neighbourhood and local will be well served to accommodate this new pattern of life and work, with a vibrant central hub and plentiful areas of open space.

### Active Travel

Active travel means making journeys in physically active ways, such as walking or cycling, often for short everyday journeys. Active travel can also include other modes of travel, such as skateboards and scooters.

The masterplan is designed in a way that puts the pedestrian and cyclist first, ensuring that existing and proposed day to day facilities and services are all within a short distance of people’s homes and that the routes available to them are attractive, direct and safe. The new bus only link through the village green in the centre of the site will discourage rat running and encourage people to get out of their cars.





## Co-location of Central Facilities

The co-location of community, sports, childcare, medical facilities, centred around a key area of open space in the form of the village green, forms a convenient and accessible hub. This will minimise the number and length of trips and increase the convenience of opportunities to participate in sport and physical activity.

The village centre (including a healthcare facility, community hall and early years facility) will be located in the centre of the site, also close to existing housing and connected to desire lines.

These buildings will provide the opportunity for residents to socialise and connect. The community hall in particular, offers the chance to appeal to the creative community, with the potential for pop up art events. The local area has a strong artistic history with the Hadleigh's castle having been famously captured in oils by John Constable in 1829, as well as many other reputable artists since. Today, those traditions continue as both Hadleigh and Thundersley boasting a thriving arts community, with the Hadleigh and Thundersley Art Trails taking place each year.

## Our 20 Minute Neighbourhood

The diagram to the left demonstrates how walkable the new neighbourhood will be. The entire site is within a 400m walking distance of the community hub, which is co-located within the centre of the site. The main street provides a connection point from north to south with a cycleway to accommodate active travel. The bus only route through the centre will disincentivise people to travel by car and not allow rat running from the retail park to the north. And a linked network of different types of walking routes will snake their way through the site, providing convenient routes for everybody, including a 2.7km walking loop around the entire site.



**There is a growing recognition of the key influence designing for play has on wellbeing and in creating a socially cohesive environment. Play can help address fundamental human needs for interaction, movement and exercise and creates a focal point for the community.**

### Active design and the importance of play

Outdoor play is an essential ingredient of a happy, healthy childhood. Its importance is enshrined in Article 31 of the 1989 United Nations Convention on the Rights of the Child, which is ratified by the UK Government. Creating welcoming and stimulating places to play can make a real difference to children's lives.

Whilst traditional guidance on play from Fields in Trust suggests that all homes should be within recommended distances to parks, playing pitches, NEAPs, MUGAs, LEAPs and LAPs, this masterplan has been inspired by Sport England's active design principles, which is about designing where we live to encourage activity in our everyday lives, making the active choice the easy choice.

The Design Council, in their Active by Design report, recognises that good built environment design can be instrumental in encouraging greater levels of daily physical activity, promote health, independence and promotes the top four functions of good health, physical and mental, that can be designed into the physical wellbeing and reduce prevalence of life-style diseases:

- increased physical activity;
- access to healthy food;
- contact with nature, and;
- positive social contact.

### Our play strategy

The play strategy provides opportunities for all residents to socialise and interact with nature and includes formal playgrounds and open spaces which encourage outdoor activity, exploration and exercise. The strategy has been informed by the following best practice principles which ensures that play facilitates:

- Are accessible to all through location and design.
- Are bespoke to the site.
- Offer a range of experiences and activities to meet the diverse needs.
- Are sustainable and easily maintained play spaces that use natural materials.
- Provide residents with opportunities to make calculated risks.

Designing with these aims in mind will deliver a multi-functional landscape which:

- Facilitates safe and attractive play spaces for all ages. Play spaces will be well overlooked to encourage unsupervised and imaginative play.
- Encourages play and physical activity for adults through the fitness trail.
- Uses existing landscape features and planting to create a stimulating sensory environment.
- Provides daily opportunities to interact with nature.
- Creates safe residential streets through speed limits which encourage doorstep street play and independent child mobility.

### Play proposals

Play areas will include equipped areas of play as well as informal areas of play integrated into open spaces based on the principles of natural play. The plan opposite shows the potential distribution of different types of play space to demonstrate potential for a mix of destination play space and local play spaces across the masterplan. This includes:

1. A large equipped play area located on the village green.
2. Green corridors, including the fishing lake, providing space for the surrounding community to meet, relax and play.
3. A mix of formal and informal play, including natural play in the drainage areas.
4. Small scale open spaces within the residential areas providing local play, food production and space for relaxing and socialising.
5. Multiple areas of woodland for walking and informal play. A trim trail will also provide the opportunity for exercise.







*"The way in which spaces are designed is crucial to their success. The design considerations vary with the type of space, a formal park being very different to a large natural open space."*

National Model Design Code, Paragraph 67.





# Essential contact with nature

**The masterplan will include a mosaic of interconnected multi-functional, semi natural green open space for the benefit to people and wildlife. This green infrastructure will mitigate recreational impacts on nearby designated sites, protected and notable flora and fauna and deliver Biodiversity Net Gain onsite.**

## Open space

The masterplan will boost biodiversity and draw on the enduring qualities of the area. Close contact with nature will be part of the pleasure of life throughout the new neighbourhood, with a series of beautiful woodland belts, grassland, wetlands and open spaces characterised by naturalistic planting. Allotments and community orchards will provide flora and fauna plentiful opportunities to thrive.

Opportunities for habitat creation and naturalistic planting throughout the open spaces has been explored making contact with nature an ever present feature of living in the new neighbourhood.

Views will be framed, within the site and beyond to landscape to the east and Rayleigh Church to the north.

## Built environment

### Landscaping

Landscaping within the built environment will be wildlife friendly and not detrimental to biodiversity i.e. non-native invasive species.

Any grassland within the built environment will include low flowering wildflower turf / seed. Low flowering turf provides nectar resources through these corridors creating an ecologically permeable site. This turf can be cut multiple times and thus does not 'look untidy' opposed to traditional wildflower areas.

### Connectivity

Creation of an ecologically permeable built environment which welcomes wildlife through the

provision of integrated habitats features such as bat and bird boxes along with green fingers through development parcels providing nectar rich habitats such as low flowering wildflower. Existing hedgerows will be retained and enhanced where possible.

To allow wildlife to move through the site amphibian friendly drainage and dropped kerbs will be employed.

## Lighting

Where it is not necessary to light then no light will be used. If it is necessary to light then wildlife sensitive lighting techniques will be employed. To maintain safety, routes within or in proximity to urban areas cannot be totally free from street lights. Therefore sparse lighting with warm-white LEDs and baffles will be used to minimise light spill and the effect on bats. The street lights will be directed away from the dark corridors and pointing downwards to minimise unnecessary light spill. Baffles will be fitted to street lights along key these corridors and adjacent to foraging habitats to direct the light away from dark corridors. Warm-white LEDs have been found to attract fewer insects compared to other white lights (Eisenbeis, 2009). Therefore they are likely to have less of an impact on bat foraging behaviour; a similar effect to Low Pressure Sodium lights (Stone et al., 2014) which have been proved to increase activity and foraging behaviour of noctules (Rydell & Baagoe, 1996) and have no significant increase in activity compared to dark areas on pipistrelle species (Blake et al., 1994). The type of street lighting selected will therefore mitigate effects of harmful light pollution (to the majority of species recorded during surveys at this site pipistrelle species and noctules) with further features such as baffles and direction of lighting providing additional protection.

*All new development needs to use, retain and improve existing habitats or create new habitats to achieve measurable gains for biodiversity. This includes landscaping and tree planting.*

**National Design Guide,**  
paragraph 82.

*"Development should enhance the natural as well as the built environment. Nature is good for health and wellbeing, for biodiversity, shading and cooling, noise mitigation, air quality and mitigating food risk as well as contributing to tackling the climate emergency. Nature is also central to the creation of beautiful places."*

**National Model Design Code,**  
paragraph 57







## A connected, productive community

Increasing our interaction with the natural elements through touch – literally getting dirt under our nails – is both psychologically therapeutic and neurologically nourishing. Creating space for food production increases access to healthy food, provides educational opportunities and reconnects residents to their surroundings, and each other. It also boosts self esteem and worth by providing a

### A productive neighbourhood

The masterplan includes space for allotments, an orchard and an edible garden area (within the orchard). These will be designed to promote access to healthy, low impact, seasonal and organic food. Food waste reduction will be encouraged through provision of recycling and composting facilities. Allotments and orchards will be provided to the south of the site, in a quiet part of the neighbourhood near to existing tree planting.

#### Allotments

Allotments are increasingly popular, particularly since the Covid-19 pandemic; there are long waiting lists across the UK. The allotments will allow residents to have an individual or shared space to grow their own produce. The allotment areas will include traditional allotment beds, a small parking facility and a composting toilet. The allotments will be accessible on foot via the multiple new active travel routes.

### Orchard

Allowing residents to take ownership of shared amenities such as an orchard will enable residents to feel engaged with their environment. This enables them to take ownership of it, which will help to form a close-knit community. This model already exists locally. Orchards East is an environmental initiative that takes place across six counties, including Essex. It is funded by the Heritage Lottery with the aim to understand the past, present and future of orchards. The Leigh-on-Sea Allotments Orchard is a project based on conservation and celebration of Essex varieties of pears and apples. The orchard is surrounded by a native species hedge and as well as the fruit trees, the orchard contains a wildlife pond, composting areas, and allotment space. Today, thanks to the volunteers the orchard now contains all 35 varieties.

### Essex varieties of apple

Within the orchard, there could be beehives and small edible garden areas, self growing and community growing spaces will be provided, with a focus on species of local provenance such as the Essex Heritage variety apples. The Productive Space will also provide educational and learning benefits, with opportunities for school involvement and educational programmes for the residents to learn about food production.

Additional finer grained, smaller community growing space could be integrated into pocket parks or within the streetscape.

### Active citizenship

Local residents groups, clubs and forums will be established to promote opportunities for social engagement, active citizenship and interaction helping create a vibrant and integrated community. The Orchard, allotments and community hall are ideal focal points for such groups or clubs.





