



NORTHSTOWE PHASE 2

Healthy Living and Youth & Play Strategy

April 2018

APPROVED 22 JUNE 2018



Homes
England





FOREWORD

Welcome to the Healthy Living and Youth & Play Strategy for Northstowe Phase 2

The Strategy considers how youth facilities and play can be provided in the second phase of Northstowe and identifies healthy living measures that can encourage all future residents, whatever their age, to lead active, healthy lifestyles.

Based on existing evidence and emerging best practice the design proposals will have a big impact on improving the health and wellbeing of future residents, thereby reducing the future economic burden on NHS England. The Strategy was informed by local community consultation during May and June 2017.

The Strategy has been prepared on behalf of Homes England by Chris Blandford Associates Landscape Architects with support from Catherine Max Consulting (Health Advice), Rethinking Childhood (Play Advice) and also Tibbalds Planning & Design.

A healthy town is a happy town...

April 2018

CONTENTS

1.0 INTRODUCTION 1

1.1	Overview	1
1.2	The Northstowe Development	2
1.3	Planning Context	3
1.4	Health Context	4

2.0 YOUTH & PLAY STRATEGY 9

2.1	What is Play?	9
2.2	The Importance of Play	10
2.3	Design Principles for Successful Play Provision	11
2.4	Vision and Objectives	14
2.5	Interventions	16
2.6	Play and Sport Provision in the Wider Area	24
2.7	Management	24
2.8	Requirements for Further Play Consultation	24

3.0 HEALTHY LIVING STRATEGY 29

3.1	What is Healthy Living?	29
3.2	Measures Embodied in the Northstowe Phase 2 Design Code	30
3.3	Measures to Increase Physical Activity	31
3.4	Measures to Provide Contact with Nature	37
3.5	Measures to Promote Positive Social Interaction	40
3.6	Measures to Promote a Positive Community Identity	41
3.7	Measures to Provide Access to Healthy Food/Productive Landscapes	42
3.8	Measures to Create a Low-Pollution Environment and Adapt to Climate Change	44
3.9	Design for All/Inclusive Design	45
3.10	Measures to Promote Access to Sports	47

4.0 IMPLEMENTATION PLAN 53

4.1	Introduction	53
4.2	Desirable and Other Possible Interventions	54
4.3	Implementation	54
4.4	Phasing	54
4.5	Education Campus	55
4.6	Existing Sports Strategy	55
4.7	Rampton Drift	55
4.8	Temporary Use of Land	56
4.9	Management and Maintenance of Play	56
4.10	Phase 3	56

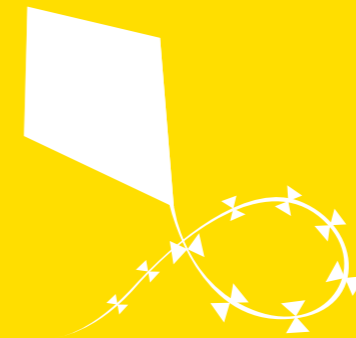
APPENDICES 59

A.1	Consultation and Engagement	59
A.2	Additional Evidence Base for Measures to Increase Physical Activity	63
A.3	Additional Evidence Base for Measures to Provide Contact with Nature	64
A.4	Additional Evidence Base for Measures to Promote Positive Social Interaction	65
A.5	Assessment of desirable and other possible Interventions	66
A.6	Water Tower Potential Proposals	83
A.7	Design Development	84
A.8	Bibliography	86
A.9	Image Copyrights	88

FIGURES

Figure 1.1	Context	2
Figure 2.1	Playable Landscapes	14
Figure 2.2	Home and Away	15
Figure 2.3	Play Hierarchy	19
Figure 2.4	Play Strategy	20
Figure 2.5	Northstowe Opportunities Key Plan	21
Figure 2.6	A Neighbourhood Amble	22
Figure 2.7	'Play on the Way'	23
Figure 2.8	Examples of Play Themes	25
Figure 3.1	The Categories of Healthy Living Measures	29
Figure 3.2	Routes	33
Figure 3.3	Routes Strategy	34
Figure 3.4	Active Routes Strategy	35
Figure 3.5	Contact with Nature Strategy	39
Figure 3.6	Access to Healthy Foods Strategy	43
Figure 3.7	Sports Provision	48
Figure 3.8	5 Ways to Wellbeing	49

1.0 INTRODUCTION



“Whatever space and time mean,
place and occasion mean more.”

Aldo van Eyck

1.0 INTRODUCTION

1.1 Overview

Northstowe is a planned new town of approximately 10,000 homes to the North West of Cambridge. It aspires to be a vibrant 21st century settlement enabling sustainable lifestyle choices and patterns of living.

In 2016 Northstowe was included in the NHS England Healthy New Town (HNT) initiative with the aim of promoting and shaping the health of new communities by radically rethinking how we live and how we can improve health through the built environment.

The town will be delivered in three phases.

Purpose of this Strategy

The Northstowe Phase 2 Healthy Living and Youth & Play Strategy (NHLYP) illustrates how Northstowe Phase 2 will be designed to encourage active lifestyles, independence and wellbeing, and be provided with excellent facilities for people to play, socialise, play sport, keep fit and have fun.

The strategy includes three distinct elements:

- A Youth and Play Strategy
- Healthy Living Strategy
- An Implementation Plan covering delivery of youth and play provision, broader healthy living measures and an existing sports strategy

The Strategy is informed by various 'fixes' within the Northstowe Phase 2 Outline Planning Permission (reference S/2011/14/OL, dated 9th January 2017) and the Northstowe Phase 2 Design Code (approved October 2017).

Consultation and Engagement

The following key stakeholder groups and organisations were consulted in the preparation of this document:

- South Cambridgeshire District Council
- Northstowe HNT Steering Group
- Northstowe Community Forum
- Public Services & Community Led Supporting Working Group (PSCS)
- Northstowe Community Working Group
- Longstanton Youth Council
- Longstanton & District Heritage Society
- Cambridgeshire County Council (Heritage)
- Rampton Drift Residents Company
- Cambridge Meridian Academies Trust (CMAT)

In addition, further interest groups were contacted and have provided input into the document, including:

- The Northstowe Phase 1 Landscape Architects responsible for the design of the Phase 1 play areas
- Alzheimer's Society, Dementia Friendly Communities Coordinator (Cambridgeshire)
- Voiceability
- Living Sport

A summary of the consultation and engagement is provided in **Appendix A1**.

1.2 The Northstowe Development

Northstowe will occupy 490 hectares of land close to the existing villages of Longstanton and Oakington. It will have up to 10,000 new homes and an anticipated population of around 24,400 people.

The development is being jointly promoted by Gallagher Estates (Phase 1) and the Homes England (Phases 2 and 3). Phases 2 and 3 are located on former Ministry of Defence land (Oakington Barracks).

Northstowe Phase 2 (the Site) will deliver the central part of the Northstowe development including a new town centre, education, employment and leisure uses. It is expected to provide around 3500 new homes. The Site will benefit from an interconnected network of open spaces, including a central 1.2Ha Town Park (Formal Park), Water Park, natural areas of Green Separation and Greenways. Good public transport links will be provided by a bus-only route through the centre of the Site with connections to the existing Cambridgeshire Guided Busway to the south and north of Phase 2. This will be supported by a network of local bus routes.

Northstowe Phase 2 (the Site) will deliver the central part of the Northstowe development including a new town centre, education, employment and leisure uses. It is expected to provide around 3500 new homes.

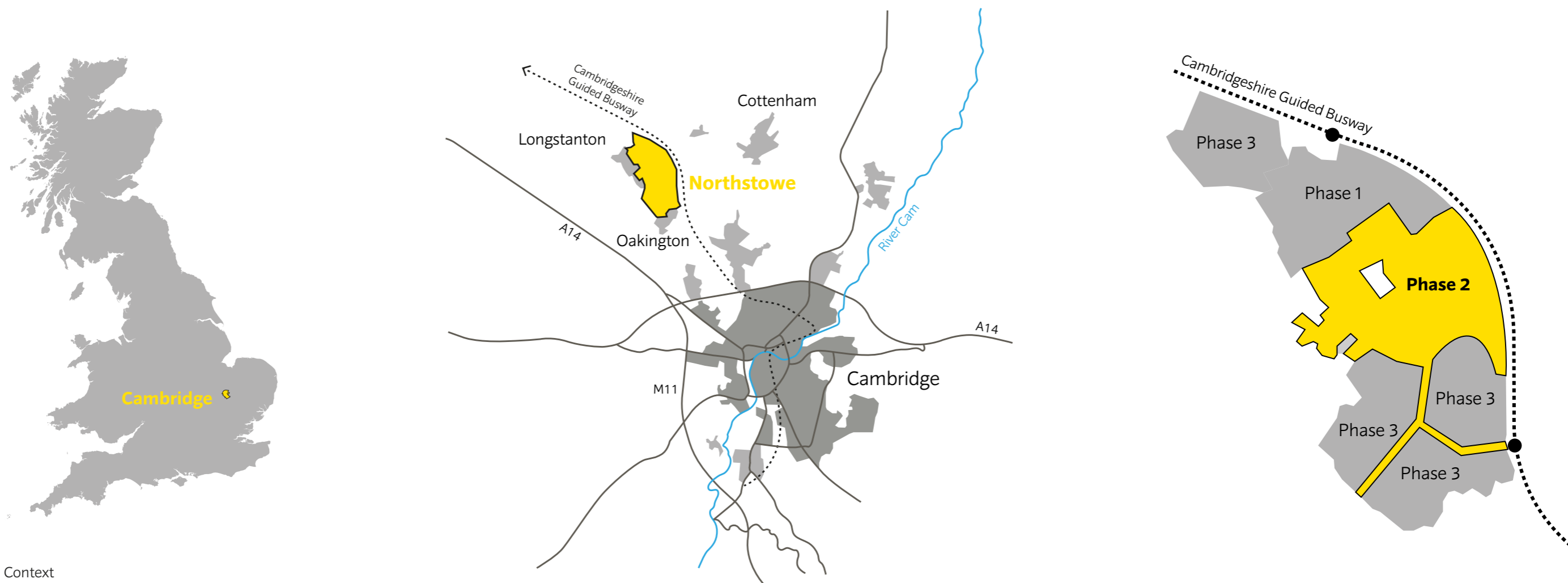


Figure 1.1 Context

1.3 Planning Context

The Northstowe Development Framework Document (DFD, 2012) defines the rationale and structure for the comprehensive delivery of the town and provides place-making principles and guidance for the three phases of development.

Northstowe Phase 2 was granted outline planning permission in January 2017 with associated planning conditions and comprehensive S106 planning obligations.

Condition 9 of the planning permission stipulates a requirement for a Design Code to provide design guidance and to establish guiding principles and a benchmark for quality for the development.

All future reserved matters applications will need to be accompanied by a statement which demonstrates compliance with the Design Code.

Other documents that influence the vision and design requirements of the development are:

- ➔ Northstowe Area Action Plan (NAAP)
- ➔ Development Framework Document (DFD)
- ➔ Phase 1 Design Code (Town Wide Elements)
- ➔ Phase 2 Design and Access Statement and
- ➔ Phase 2 Parameter Plans

The Northstowe Phase 2 Healthy Living and Youth & Play Strategy should be read alongside the above mentioned documents. Any discrepancies between documents should be highlighted and clarifications sought from Homes England and SCDC prior to submitting Reserved Matters applications.

S106 Planning Obligation and Statutory Requirements

The requirement for the preparation of a Youth and Play Strategy is identified in Part 2 of Schedule 14 of the S106 Planning Obligation by Agreement (09.01.2017). The Strategy is to be submitted to South Cambridgeshire District Council (SCDC) for approval 'prior to or simultaneously with submitting the first Reserved Matters Application for any Development Parcel within which Dwellings are to be constructed'. The Youth and Play Strategy shall 'include a full programme for implementation of all of its various parts'.

Schedule 14 Open Space of the S106 Agreement defines the Youth and Play Strategy as follows: 'A strategy setting out the provision of the Formal Park, Play Areas and other associated facilities including details of implementation of such provisions and facilities'.

The requirement for the submission of the Sports Pitch Specification, Formal Park Specification, NEAP Specification and LEAP Specification is identified in Part 3 of Schedule 14 of the S106 Agreement. This requirement will be satisfied as part of separate submissions to SCDC in accordance with processes identified in the S106 agreement and detail provided in this Strategy should therefore be considered as high level guidance only.

In accordance with the definitions provided in Schedule 14 (Open Space), the specification of NEAP, LEAP and LAP shall be in accordance with SCDC's Open Space in New Developments SPD (2009) and the Fields in Trust document "Guidance for Outdoor Play and Sports: Beyond the Six Acre Standard October 2015". Where there is a discrepancy between the two documents, the Open Space SPD shall take precedence.

The precise positioning of the Local Areas for Play (LAPs) and their specification 'shall be submitted for approval as part of a Reserved Matters Application for a relevant Development Parcel within which Dwellings are to be constructed and a LAP is to be provided'. This document gives an idea of potential locations based on the Northstowe Phase 2 Design Code, Urban Design Framework and required catchments.

For full details on the relevant definitions and S106 requirements, refer to the S106 Planning Obligations document.

Sports Strategy

Formal sports provision as set out in the Northstowe Phase 2 Sports Strategy was approved as part of the outline planning permission. It is considered with regard to its implementation in **Sections 3.0 and 4.0** of this document.

1.4 Health Context

Health in Cambridgeshire

Northstowe is located within the south of Cambridgeshire, an area of relative affluence and good health. While significant pockets of deprivation exist, these are predominantly found in the north of the county. Overall, Cambridgeshire fares better than the rest of the country against key indicators such as obesity and smoking. Life expectancy is also significantly higher compared to England as a whole. However, life expectancy is 6.8 years lower for men and 5 years lower for women in the most deprived areas of Cambridgeshire, as compared with the least deprived areas.

‘Over the next 25 years, the population of Cambridgeshire will markedly change in terms of numbers and makeup of population. Most notably, both the number of older people and the proportion of older people in society are expected to significantly increase. By 2026 it is expected there will be a 54% increase in the over 65 population and by 2036 it is expected to increase by 95% compared to 2011 population; for over 85s the increase is even more acute with the population expected to increase by 87% in 2026 and by 209% in 2036 compared to 2011 population.’¹

‘Age is a crucial factor in health and social care service use, and as a result services in Cambridgeshire are forecasting increases in demand with unsustainable financial consequences. Currently demand for health and social care services is already rising faster than the current configuration of resources will allow. Part of this increase is due to a rise in avoidable illnesses including obesity related conditions. If the local levels of obesity continue to rise slowly, its impact on health and social care services will be just as significant as the impacts due to the population growth and its ageing.’¹

Health and social care organisations are looking to preventative programmes to keep people healthier for longer and prevent or delay the need for more intensive health and social care services.

Joint Strategic Needs Assessment (JSNA)

The Joint Strategic Needs Assessment JSNA 2012-2017² for Cambridgeshire sets out six priorities which reflect demographic trends, specific physical and mental health issues, and the opportunities and challenges presented by new housing developments in the area, of which Northstowe is one. These are:

- Ensure a positive start to life for children, young people and their families
- Support older people to be independent, safe and well
- Encourage healthy lifestyles and behaviours in all actions and activities while respecting people’s personal choices
- Create a safe environment and help to build strong communities, wellbeing and mental health
- Create a sustainable environment in which communities can flourish
- Work together effectively

Recurrent throughout the JSNA is the issue of physical inactivity, which is the fourth leading risk factor for death worldwide.

Health and social care organisations are looking to preventative programmes to keep people healthier for longer and prevent or delay the need for more intensive health and social care services.

Northstowe Healthy New Town

Northstowe is one of ten 'Healthy New Towns' (HNT) identified by NHS England. The national initiative is both based on existing evidence and intended to generate new evidence about what works, why and how. Northstowe's Healthy New Town priorities are to:

- ➔ Deliver a healthy community through a framework of interventions which can be applied as the town develops
- ➔ Create a healthy town through infrastructure and place shaping
- ➔ Develop a new model of care for Northstowe

The commitment to create a healthy town through infrastructure and place shaping includes:

- ➔ 'The delivery of open space, landscape, and green infrastructure to create nudge and pull factors and maximise opportunities for positive lifestyle choices around obesity.'
- ➔ 'The provision to cater for all ages and abilities with a focus on dementia and older people.'

Northstowe HNT's emphasis on the wellbeing of older people, people with dementia and of healthy ageing for all reflects the projected demographic trend in Cambridgeshire and the country as a whole. While the initial population of Northstowe is likely to be young, as is typical of new towns, there are plans to locate specialist older people's housing at Northstowe which will serve a wider area and ensure a mixed and varied community.

Northstowe HNT's other emphasis, obesity, impacts on health in many ways. 'It is a cause of chronic disease leading to early death. It increases the risk of type 2 diabetes, raised blood pressure and colorectal cancer. It is a complex problem that requires action from individuals and society across multiple sections. One important action is to modify the environment so that it does not promote sedentary behaviour or provide easy access to energy-dense food. The aim is to help make the healthy choice the easy choice via environmental change.'³

Those that are most sedentary benefit the most from increased activity, with even small increases in walking and cycling helping health. The aim, therefore, is to enable all Northstowe residents to meet the NHS Chief Medical Officer's activity guidelines for their age group within Northstowe.⁴

Local Health Priorities and the Northstowe Healthy Living and Youth & Play Strategy (NHLYP)

Northstowe HNT has identified five health and wellbeing 'outcome' areas to achieve, which are mutually reinforcing. Of these, three are of the most direct relevance to the Northstowe Phase 2 Healthy Living and Youth & Play Strategy: '**Behaviour Change**', '**Mental Health**' and '**Positive Community Identity**' (the others are New Care Models and Thriving Economy). A HNT delivery plan details a diverse range of activities which will contribute to 'outputs' under the themes of Activity, Social Spaces that Encourage Cohesion, and Built Environment.

Embedding youth and play provision and physical activity into the HNT design has the potential to address the health challenges of obesity and long-term conditions and to promote active ageing and resilience for all.

Designing Places for Healthy Lives

Opportunities for promoting health, independence and wellbeing through built environment design are at the forefront of discourse in recent publications. It is recognised that good built environment design can be instrumental in encouraging greater levels of daily physical activity, promote health, independence and wellbeing and reduce prevalence of life-style diseases.

The Design Council's Active by Design initiative promotes increased physical activity, access to healthy food, contact with nature and positive social contact as the top four functions of good health, physical and mental, that can be designed into the physical environment to make healthy behaviours an integral part of daily life. A further three functions are proposed in this strategy which contribute to improve people's health and wellbeing. These are: promoting a positive community identity, creating a low pollution environment and minimising adverse effects of climate change and design for all/inclusive design.

The Northstowe Phase 2 Healthy Living and Youth & Play Strategy takes inspiration from the functions described above and uses them to inform the practical proposals within the Youth and Play Strategy and Healthy Living Measures described in the following sections.

Northstowe is one of ten 'Healthy New Towns' identified by NHS England.

2.0 YOUTH & PLAY STRATEGY



“Interplay between the object and the child makes his total world — play. He exploits the vitality of his environment and draws upon his imagination to create his world.”

M.Paul Friedberg

2.0 YOUTH & PLAY STRATEGY

2.1 What is Play?

Play is first and foremost what children and young people do in their own time, for their own reasons, and in their own way.

“When playing, children choose what to do, how to do it and who to do it with. Play takes many forms: doing nothing in particular; doing lots; being boisterous; showing off; being contemplative; being alone; being social; being challenged; being thwarted; overcoming difficulties. Through play, children explore the world and learn to take responsibility for their own choices.”

Shackell et al 2008⁶

Play is not just something younger children do. Although they might not use the word ‘play’, teenagers and adults also want and need to have space and time to meet and socialise with their friends and peers.

Children play in many different ways according to their own interests and abilities. However, one key feature of children’s play is their inclination to experiment, explore, and seek out stimulation and novel situations. Hence risk taking has an especially important role in play. The 1980’s and 1990’s saw growing concern about children’s safety, which arguably led to excessive risk aversion around their play and free time.⁷ However, since the turn of the millennium the debate has evolved, with public health experts and child development experts promoting a more balanced approach. There is a growing consensus that all children and young people, including those who are disabled or have specific needs, need opportunities to experience challenge and take risks in their play.⁴

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.⁸

2.2 The Importance of Play

The benefits of outdoor play to children's health, well-being and emotional and social development are well-researched.⁹ By creating welcoming, stimulating, enjoyable places for play, good parks and play spaces make a real difference to children's lives. They also help to support families and build more cohesive communities.

"90% of people found their sense of wellbeing increased after being active outdoors"

Hayley Jarvis – Community Programme Manager for Sport –MIND ¹⁰

Physical Activity

There is strong evidence that access to good play opportunities helps to improve levels of physical activity and hence tackle child obesity.³ Studies consistently show that children who play outdoors are more physically active, and that play facilities help to raise activity levels. Some studies suggest a greater impact than sport or PE initiatives.¹¹

Learning, Social and Emotional Development and Environmental Attitudes

There is also good evidence of links between outdoor play experiences and a range of improvements in academic skills, attitudes and behaviour, and to improved social skills, social relations between different ethnic groups, and better adjustment to school life.^{12 13 14} Evidence also shows that spending time in natural environments is linked with healthy development, wellbeing and positive environmental attitudes and values. One systematic review concluded that experiences of nature should be seen as part of a "balanced diet" of childhood experiences.^{15 16}

Mental Health

There are strong arguments for the mental health benefits of outdoor play. The Mental Health Foundation states on its website that "having time and the freedom to play, indoors and outdoors"¹⁸ helps to promote good mental health. Play has a significant role in fostering resilience through giving children managed opportunities to take risks.^{4 19 20}

"Studies have shown that regular exercise can reduce the risk of developing depression by 30 per cent" Kate Will¹⁷

Community and Family Benefits

As well as benefits to children, there is also evidence that play provision brings benefits to communities and families. In mixed and diverse communities, children and services for them, provide a key focus for building cohesive and socially inclusive neighbourhoods. A report from the Joseph Rowntree Foundation states:

Another community outcome from play facilities is a reduction in anti-social behaviour and vandalism.²² A practice guide produced by Thames Valley Police reported significant reductions in vandalism and petty crime following the installation of play facilities and youth shelters.²³

There are also links between play provision and family well-being. One US study found that parents who live near a playground and visit often with their child report higher levels of family well-being than parents who do not live near a playground or do not visit playgrounds often.²⁴

"Studies of mixed income communities show that most mixing across social groups takes place between children. It is these contacts – in nurseries, playgroups, schools and in public spaces – that provide opportunities for adults to meet and form relationships. Children provide a common ground and shared interest between people in different tenures. People with children have a high stake in the success of a neighbourhood and the quality of its services"

Joseph Rowntree Foundation 2006 ²¹

By creating welcoming, stimulating, enjoyable places for play, good parks and play spaces make a real difference to children's lives.

2.3 Design Principles for Successful Play Provision

Play Spaces

Design for Play²⁵ sets out a landscape-led approach to play space design, with the aim of creating robust, flexible, inclusive spaces and features that are attractive to children and families of all ages and abilities. The design guidance is based on the golden rule to:

“..Create a place in its own right, specially designed for its location, in such a way as to provide as much play value as possible.”

Design for Play identifies the following key elements that make for successful play spaces:

- Opportunities for movement and energetic strength building physical activity.
- Stimulation of the five senses.
- Places conducive to social interactions.
- Opportunities to play alone, with others, to negotiate, cooperate, compete and resolve conflicts.
- Opportunities to manipulate natural and fabricated materials including tools.
- Challenge and activities that test the limits of their capabilities including climbing.

Design for Play's 10 Principles to create successful play spaces are:

Bespoke – Designed to fit their surroundings and enhance the local environment, complementing attractive spaces and enhancing poorer environments.

Well located - To be where children would play naturally and away from dangerous roads, noise and pollution.

Natural – To include grassy mounds, planting, logs, and boulders.

Wide range of play experiences – For different ages including non-prescriptive play equipment and features to encourage imagination and creativity.

Accessibility to disabled and non-disabled -Successful play spaces offer enjoyable play experiences to disabled children and young people, and to those who are non-disabled, whilst accepting that not all elements of the play space can be accessible to everyone.

Meeting community needs – The play area is developed through a successful community engagement process to ensure that the design meets the needs of the end users.

Allow children of different ages to play together – Minimise segregation of different ages.

Include opportunities to experience risk and challenge - Children and young people need opportunities to experience challenge and excitement in their play.

Sustainable and well-maintained – Play equipment made from recycled or sustainably sourced materials. Long-term management and maintenance plan in place to ensure successful planting establishment and repair and replacement of equipment.

Allow for change and evolution – Flexibility of space to allow for changes to layout and features including by children.

Providing Play for Older Age Groups

Teenagers

Teenagers need social places that they can get to by themselves, where they can meet with friends and peers, and where they can have access to more challenging play and informal recreation opportunities.

Teenage provision tends to be dominated by wheeled play and ball games areas – these areas are largely or exclusively used by boys. Other play offers such as climbing features, group swings, trampolines, outdoor stage/performance areas and parkour facilities can help to expand choice.

Sheltered social space for sitting and hanging out combined with other play and recreational facilities will increase the appeal for both boys and girls.

Adults and Older People

Play spaces should provide a pleasant environment for parents, grandparents and carers to relax, as their experience of the space may dictate how long the children in their care are likely to remain in the play area.

Additional opportunities for inter-generational play can greatly enhance the experience by all. Play equipment across the site should include elements that can be used by people of different sizes and are designed with adults in mind.

Accessibility, Pedestrian Networks and Urban Context

Accessibility and connectivity are crucial in attracting users to public spaces including play facilities and sustaining use. Pedestrian networks with little or no vehicular traffic are popular as locations for children's play in their own right, in part because of children's desire to move around from one place to another.²⁶

Recent studies on play and use of public space on housing estates identified that this varied considerably depending upon the physical layout of the development. Levels of play and social activity were five times higher than others: Estates which stimulate the widest range of play activity and satisfaction amongst children and parents are those with extensive footpath networks, public open spaces incorporating play areas.²⁷

In Housing Design for Community Life²⁸, 10 new housing developments were reviewed to explore the use of public space by people of all ages.

The report concluded that:

- ➔ External spaces in housing areas are the natural places for social activity
- ➔ Children are the dominant users of external spaces.
- ➔ There are positive links between play and a wider use by the rest of the community.
- ➔ There is positive link between children's independent mobility and their extended use of external spaces.
- ➔ Car-free shared open spaces that are directly accessible from dwellings are the best used. If an open space is separated by a road it will be used far less by residents.

Accessibility and connectivity are crucial in attracting users to public spaces including play facilities and sustaining use.

Doorstep Play

The volume and speed of traffic has an effect on how streets are used with low traffic speeds and low traffic volumes enabling most play opportunities.

Traffic speeds above 20mph and high traffic volumes are linked to a reduced sense of social connectedness, and lower observed levels of play. Car parking arrangements also shape the social use of streets. Anti-social car parking has been identified as a key inhibiting factor to children's ability to play safely near their homes as well as impacting on other users.²⁸

Children preferred to play 'where they could see and be seen' – in open view of houses rather than in more hidden areas. While their range increased with age, there still appeared to be a strong desire, both for security and convenience, to stay relatively close to the home. As a consequence roads and pavements close to housing are the most popular locations for play.²⁶

Residential streets are the first stages in the everyday journeys of children and families. They can also function as public spaces in their own right. Children play more in 'home zone' style shared space streets than in conventional traffic calmed streets and higher levels of play are experience in connected streets rather than in cul-de-sacs. Therefore design should go beyond simple traffic calming measures to create shared space.²⁶

Safe Circulation Routes

Safe neighbourhood pedestrian and cycling circulation routes through the new town are essential because:

'The primary outdoor activity for children is 'Going' – i.e. walking, cycling or occasionally roller skating purposefully in a definitive direction to visit key locations in their neighbourhood such as friend's houses, shops, parks and play areas.'²⁷

'The secondary most popular outdoor activity has been found to be simply walking and cycling around.'

Shaw, et al. 2015²⁹

Incidental Play

The London Planning Guidance 'Shaping Neighbourhoods: Play and Informal Recreation' 2012³⁰ defines incidental play as 'public space where recreational features such as landscaping or high quality public art make it playable'.

There is the potential for circulation routes and public open spaces to incorporate purposefully designed elements that have play value but don't necessarily constitute formal play space. These features are considered to be 'incidental play' areas or LAPs. (Refer to page 17).

The volume and speed of traffic has an effect on how streets are used with low traffic speeds and low traffic volumes enabling most play opportunities



2-01. Incidental Play along Pedestrian Route (Abode, Cambridge)



2-02. Incidental Water Play (More London)



2-03. Incidental Natural Play

2.4 Vision and Objectives

The Vision

The vision for the Northstowe Phase 2 Youth and Play Strategy:

1. To facilitate play and outdoor activity that enables people of all ages and abilities to benefit from the increased health, freedom and confidence that it offers.
2. To provide the legacy required for Northstowe to be an exemplar for health and wellbeing as it develops and into the future following completion in 25 years' time.
3. For Northstowe to become statistically one of the happiest, contented and healthiest communities in Cambridgeshire as a consequence in part of its exemplary play provision and masterplanning design.

Objectives

The following objectives have been identified to guide the Youth and Play provision of the development:

- To ensure outdoor play and recreation and contact with nature is part of everyday life through the seasons.
- To provide comprehensive opportunities for unsupervised play and independent mobility within circulation routes and low trafficked environments.
- To provide 'Play on the Way' routes incorporating sequential and incidental play elements from residential areas to key destinations such as schools, shops, parks, leisure activities and other places of social interaction.
- To provide, alongside the formal play facilities a 'Playable Landscape' which is intrinsic to the proposed thoroughfares and open spaces allocated in the Phase 2 Design Code. The thoroughfares and routes with the greatest footfall of children should be the primary focus for play interventions.
- To provide a safe, memorable, sensory and social experience.
- To ensure play and recreation meets the needs of a diverse range of age groups and abilities
- To ensure play and recreation provision promotes opportunities for intergenerational cohesion and relationship building.
- To ensure play provision caters for the needs of Northstowe residents as well as for people from surrounding neighbourhoods and includes opportunities for wider community integration.
- To incorporate interpretation of local history and natural environment as part of play experience.

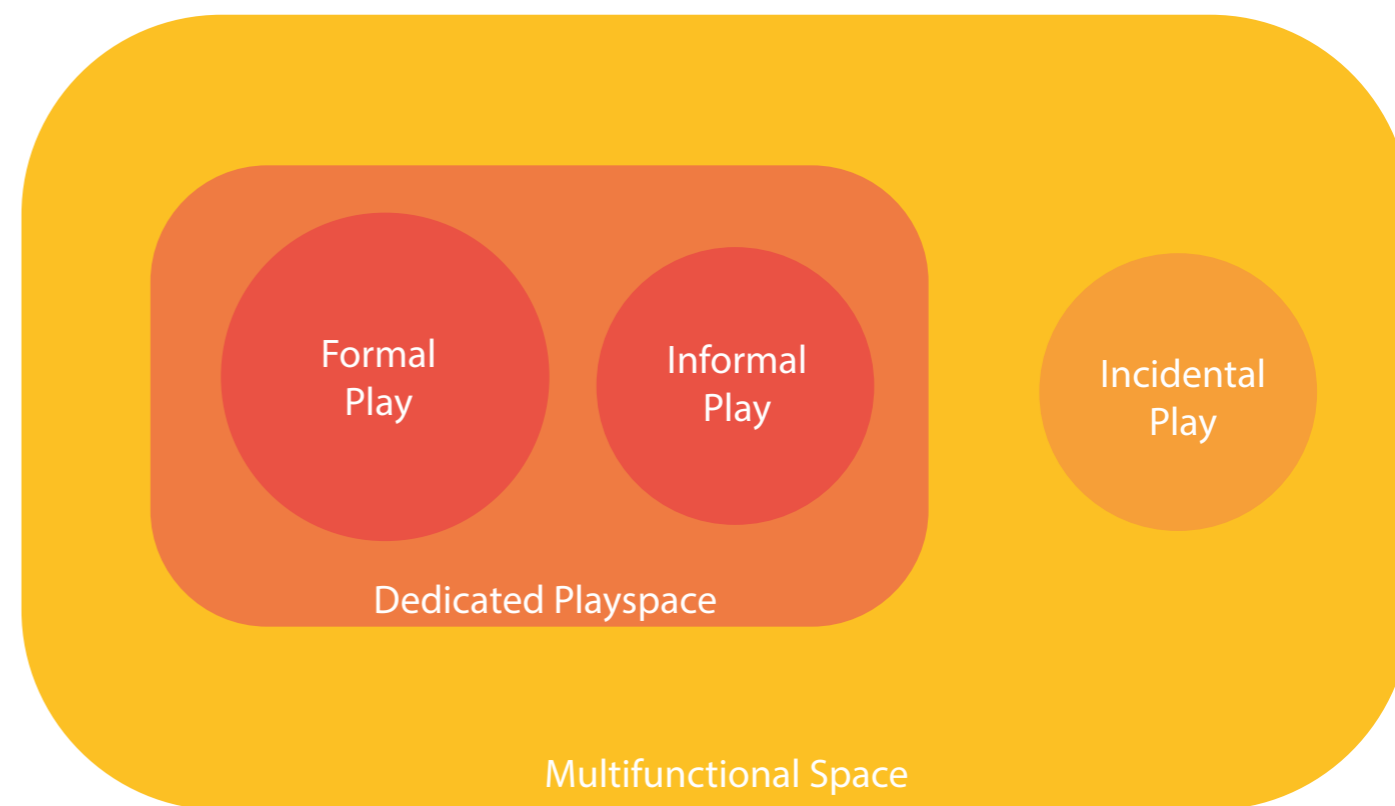
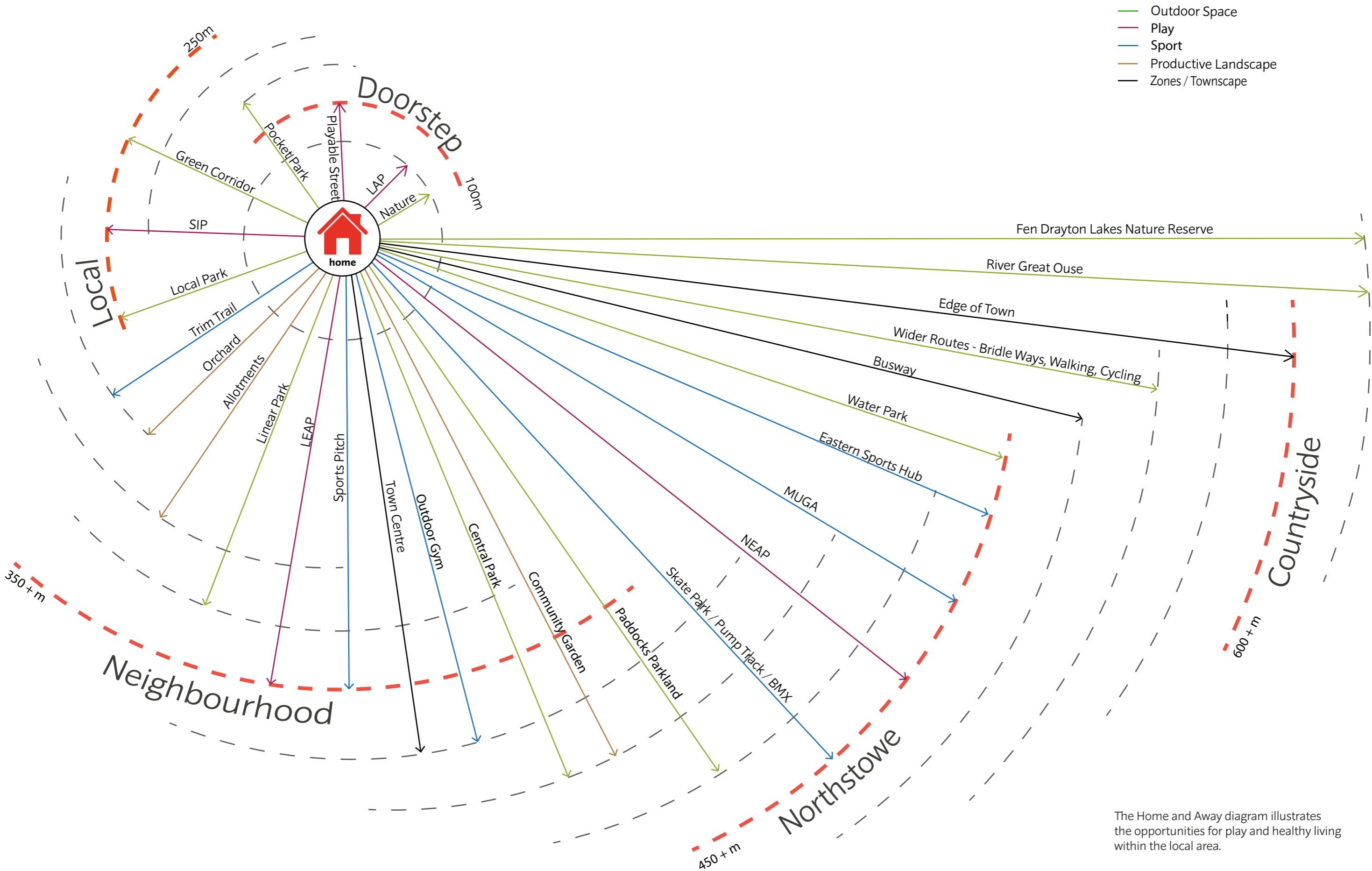


Figure 2.1 Playable Landscapes



The Home and Away diagram illustrates the opportunities for play and healthy living within the local area.

Figure 2.2 Home and Away

2.5 Interventions

This section identifies how design measures shall be incorporated across the Site to optimise play and recreational opportunities for the new settlement.

Themes

Distinct character areas are defined in the Northstowe Phase 2 Design Code. It is proposed therefore that play provision has strong place making themes fitting into a wider urban, ecological and historical landscape context. Irrespective of the scale or typology, play areas should vary in their themes and aesthetics based upon their location and surroundings. Possible themes for the various play interventions could include:

- Ridge & Furrow (Anglo Saxon landform)
- Natural History
- Edible landscapes
- Roman Heritage
- Archaeology
- 571 Squadron
- De Havilland Mosquito

Examples of play themes are shown in **Figure 2.8**

Doorstep Play/Streets Designed to Homezone Principles

The Northstowe Phase 2 Design Code stipulates that the majority of streets should have a design speed of 20mph or below. Tertiary Streets will 'have to deliver the overall vision to create a safe and accessible environment that allows for a range of activities, including play and opportunities for social interaction...'. Design speeds in tertiary streets are identified as 5-15mph.

It is proposed that at least one tertiary street within each development parcel is designed to homezone principles incorporating incidental play features, some of which may constitute as a Local Area for Play (LAP) - refer to 'Destination Play Areas'.

Children see social contact with their friends though their play activity outdoors and to achieve this they need to be able to move around their estate as widely and safely as possible and from an early age (two plus).³¹

Streets

Streets should incorporate space for socialising with feature seating, sculpture and play elements. Provision of safe circulation routes that enable increasing distances to be covered with age is critical to improve independent mobility and satisfaction with opportunities for play. Interventions to facilitate this movement include:

- Traffic free circulation routes
- Cycle routes for different ages to include short circuits for small children on scooters and tricycles.
- Safe crossing points
- Low traffic and slow traffic environments between children's homes and key destinations
- Painted or other clearly defined pedestrian crossing points.

'Play on the Way'

It is anticipated that walking to school and the town centre will be a major generator of pedestrian footfall across the new settlement given that most of Phase 2 is accessible within a 12 minute walk.

How these proposed routes can be used will be vital to the success of the new settlement in providing a physical network of social space for the new community.

Primary cycling and walking routes between residential neighbourhoods and the schools and town centre should therefore be the focus for sequential and incidental play provision. It is proposed that the frequency of incidental play elements along car free routes is every 50 metres. On vehicular routes where there are no direct pedestrian crossing points this should be doubled to provide consistency to either side of the street.

Play on the Way routes could include:

- **Inline/Skating/Skate boarding/Scootering Course:** Routes and ramp features could be provided alongside the existing cycle routes to provide challenges for skaters, skate boarders and scooterers alongside the need for smooth running surfaces for cyclists.
- **Sensory Routes:** To include diverse sensory and seasonal planting, pedestrian balustrades and tactile and varied pavement surfaces.
- **Playable Public Art Features:** To include robust features of modern public art and interpretation of local history.
- **Changes in Levels and Textures:** To include mounding, stepping stones and change in paving pattern.

- **Games and Quests:** To include outdoor games, i.e. giant chess, digital treasure hunt or plaques of interest.

Refer to **Figures 2.5, 2.6** and **2.7**.

Interaction with Nature

The Site benefits from extensive areas of car-free open space and circulation routes offering many opportunities for incidental play and recreation. These spaces have the potential to offer a closer interaction with nature.

Destination Play Areas

In addition to the incidental opportunities for play provided across the Site, the Strategy proposes the provision of a number of distinct destination play areas. These include:

- Neighbourhood Equipped Areas for Play (NEAP)
- Local Equipped Areas for Play (LEAP)
- Local Areas for Play (LAP)
- Space for Imaginative Play (SIP)

The proposed number and locations are stipulated in the Northstowe Phase 2 Design Code and S106 Planning Obligations and are reflected in **Figure 2.4**.

Destination play areas are differentiated by their target age groups and specification requirements. These are defined in the SCDC Open Space in New Developments SPD (2009).

In addition to these specification requirements, the following design and physical considerations should be considered: (see overleaf)

Neighbourhood Equipped Areas for Play (NEAPs)



- The current proposals show a requirement for 1 NEAP to be provided within Northstowe Phase 2. This to be located in the east of the site within close proximity to the Secondary School and Sports Hub. Refer to **Figure 2.4**.
- Its proposed location will allow for the interrelationship of the play area with other uses within the vicinity including the skate park, MUGA, and Eastern Sports Hub facilities.
- The play area should be designed in a way so that it mixes multiple uses, play challenges, age groups and activities. Its context lends itself to a linear play space that extends down into the Sports Hub blurring the lines between play, sport, and social activities.
- It should provide play elements, ball courts, seating terraces, social spaces, a skate park, pump track, opportunities for informal activities like parkour and vantage points over the adjacent sports fields.

Local Equipped Areas for Play (LEAPs)



- There are 3 LEAPs to be provided throughout Phase 2. These are to be located in the town centre, formal greenway and informal greenway / Rampton Drift. Ref **Figure 2.4**.
- The three spaces are located in very distinctive character areas that will require them to vary entirely in terms of design and aesthetic
- The town centre LEAP play space should be a feature play attraction. This space will be very popular and overlooked and should integrate effectively into the town park. Opportunities for water play should be considered a key driving force within this play space.
- Formal Greenway LEAP play space should be softer in its character and should include varied play types. To use a variation of landform, play types and materials. Due to its location next to the community garden and orchard its theme should be influenced by nature, gardens or plants.
- Informal Greenway LEAP play space to be more informal and natural in its character. It should feature undulating landform, natural materials and surfaces. The use of timber, rocks, planting, tree cover, and interaction with nature should be the key objectives.

Spaces for Imaginative Play (SIPs)

In order to offset relative longer distances from north of the Site to the three LEAPs, an additional SIP is proposed within the informal greenway.

SIPs complement the more formal LEAPs and are designed specifically for imaginative play without the use of conventional moving equipment. Being less formal in their design, features should include ditches, embankments, hollows, fallen trees, large rocks and log features plus seating of an appropriate character. There is no requirement for fencing. The LPA may approve 'loose' safety surfacing for these more rustic facilities, where appropriate.

Local Areas for Play (LAPs)



- Access to LAPs shall be provided from all residential properties within a 100m walking radius. Densities of LAPs need to be higher where streets with a design speed above 20mph create barriers to children's independent movement.
- LAPs shall be provided within each development parcel approximately where shown on **Figure 2.4**, unless a variation from this can be convincingly justified.
- Final locations for LAPs will be determined during detailed design stages and will be determined through reserved matters applications. It may be possible to prioritise some LAP locations over others, making sure that locations with more generous space are bigger and more varied than others.
- Given the quantity of the LAPs throughout the site, they will vary in their themes and should relate to their location and surroundings.
- Homezone-style streets (in place of mews) could replace some of the LAP locations, provided that this type of street and play provision is acceptable to approving parties.
- In order to ensure safe and easily accessible play space within mews and similar streets, parking may need to be restricted to one end or to one side.

Proposed Play Interventions within Specific Areas of the Site

Town Square/Park

Play in the Town Centre will have a more formal and 'urban' aesthetic; design to include:

- ➔ Provision of a water play feature consisting of jet water features, sluices and rills either within formal LEAP or adjoining public realm space
- ➔ Sculptural street furniture and seating

Linear Urban Park

Design to include:

- ➔ Contemporary interpretation of archeological finds and vernacular landscape forms
- ➔ Sculptural street furniture and seating
- ➔ Playful paving patterns and edge treatments
- ➔ Water rills
- ➔ Combination of playable green space and hard landscape areas

Education Campus/School Thresholds

The frontage to the Education Campus and the curtilage to the primary school will be areas of intense footfall and after school social interaction. They should be designated specifically as space for social interaction and informal play opportunities. Design to include:

- ➔ Raised social gathering spaces for teenagers
- ➔ Seating incorporating play elements
- ➔ Sensory planting
- ➔ Playful paving patterns
- ➔ Shaded circulation gathering space

Zone between Education Campus and Eastern Sports Hub

Design to include:

- ➔ Public convenience
- ➔ Pump-track
- ➔ Extension of NEAP along this route

Additional Potential Play Intervention:

- ➔ Terraces for overlooking sports pitches and NEAP

Formal Greenways

Design to include:

- ➔ Outdoor gym
- ➔ Community garden
- ➔ Community orchard
- ➔ Informal hooped ball sports provision (single hoops for netball or basketball)
- ➔ Informal boule area
- ➔ Playful level changes in keeping with the formal character of the Greenway
- ➔ Multi-sensory planting
- ➔ Places to socialise close to nature

Informal and Rampton Drift Greenways

Play areas should be natural in their appearance, with timber play elements, boulders and natural surfaces. Design to include:

- ➔ Varied landforms
- ➔ Wooden play elements
- ➔ Integration of 'edible planting' and opportunities for foraging

Additional Potential Play Intervention:

- ➔ Opportunities for environmental interpretation
- ➔ Play associated with open water channels

It is proposed to modify the drainage infrastructure design to provide open water channels within primary swale routes with stepping 'stone' and beam crossing points. The drainage regime would enable for a cycle of inundation and drying out to provide a dynamic environment for marginal landscape plants to establish.

Village Greens/Pocket Parks

Areas to include natural play elements, open lawn areas and seating. Playful integration of swales/rills and fruiting trees.

Western Sports Hub

The proposed sports field area could accommodate additional facilities including volleyball pitch outdoor gym and/or trim trail.

- ➔ Outdoor volleyball court
- ➔ Outdoor gym
- ➔ Trim trail

Rampton Drift Play Area

Given its location immediately adjacent and encircled by the Site, the existing play area within the Rampton Drift estate could make a valuable contribution to the overall Northstowe play provision and could be a catalyst for promoting strong community ties between Rampton Drift residents and Northstowe residents. This would require agreement of Rampton Drift Residents Company. Practical considerations around implementation are discussed in **Section 4.0** of this document.

Paddocks Parkland

It is proposed that this area of existing grazing land will remain largely the same in character given its heritage and scenic value. It has the capacity to provide an extensive area of informal recreation and venue for occasional community events.

There is the opportunity for minor upgrades to pedestrian access and way finding to optimise pedestrian connections between Longstanton and the new settlement along with interpretation of the historic ridge and furrow landscape. Design to include:

- ➔ Retained natural landforms of ridge and furrow
- ➔ Natural meadow grass areas for informal play and recreation
- ➔ Informal grass paths
- ➔ Opportunities for informal picnicking
- ➔ Opportunities for foraging

Water Park

Design to include:

- Opportunities for prominent land forms including mounds to create visual interest, physical challenge and vantage points
- Places for pond dipping and access to water
- Nature trails
- Opportunities for den-building

Additional Potential Play Intervention:

- Nature inspired artwork with opportunities for physical interaction
- Opportunities for boating/canoeing
- Wildlife interpretation

Water Towers

Additional Potential Play Intervention:

The water towers will be set within a small public open space surrounded by buildings up to 3-storey high. They are a link to the more recent history of the Site and provide a local landmark and point of reference within the development. Proposals for the re-use of the water towers include: climbing wall, projection surface for outdoor cinema, architectural illumination, partial greening and incorporation of a social space and play elements at ground level. Proposed sketch options for these are included in **Appendix A.6**.

The water towers could provide a viewing platform above the proposed building lines. Health and safety, accessibility and privacy in relation to surrounding properties would need to be resolved.

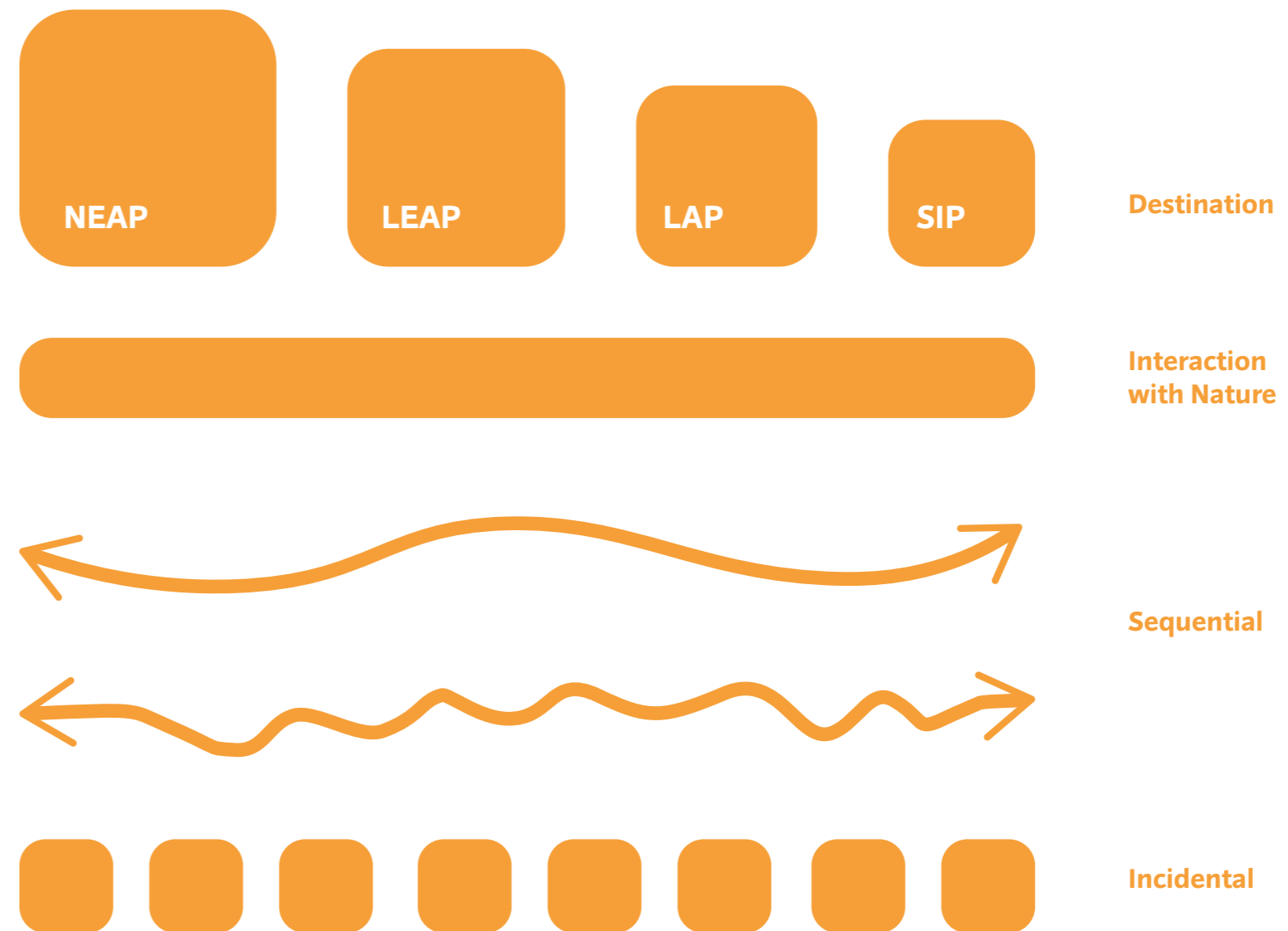


Figure 2.3 Play Hierarchy

The Play Hierarchy diagram illustrates the range of play intervention typologies and their diagrammatic representation as a continuous feature or a sequence of isolated features.



- KEY**
- Neighbourhood Equipped Area for Play (NEAP)
 - Local Equipped Area for Play (LEAP)
 - Space for Imaginative Play (SIP)
 - Local Area for Play (LAP)
 - Destination Play Catchment Zone (NEAP 1000m, LEAP/SIP 400m, LAP 100m)
 - Existing Play Area (Rampton Drift)
 - Existing Play Area (Outside Northstowe Phase 2)
 - Northstowe Phase 1 Play Area
 - Doorstep Play/Streets Designed to Homezone Principles (indicative locations)
 - Incidental play, social gathering and senior play within Formal Greenway, Town Park and Linear Urban Park
 - Social gathering and informal play within Education Campus and School Thresholds
 - Informal play and sport provision between Education Campus and Eastern Sports Hub
 - Play within formal open space
 - Nature themed play/ informal incidental play
 - Informal water and nature themed play within Water Park
 - Informal heritage and nature themed play within Paddocks Parkland
 - Play provision within Education Campus and School Ground
 - Orchard
 - Allotment/Community Garden
 - Playful interaction with nature
 - Food, productive landscape and orchard themed play
 - Water themed play
 - History and heritage themed play
 - Outdoor gym
 - Informal ball sports provision

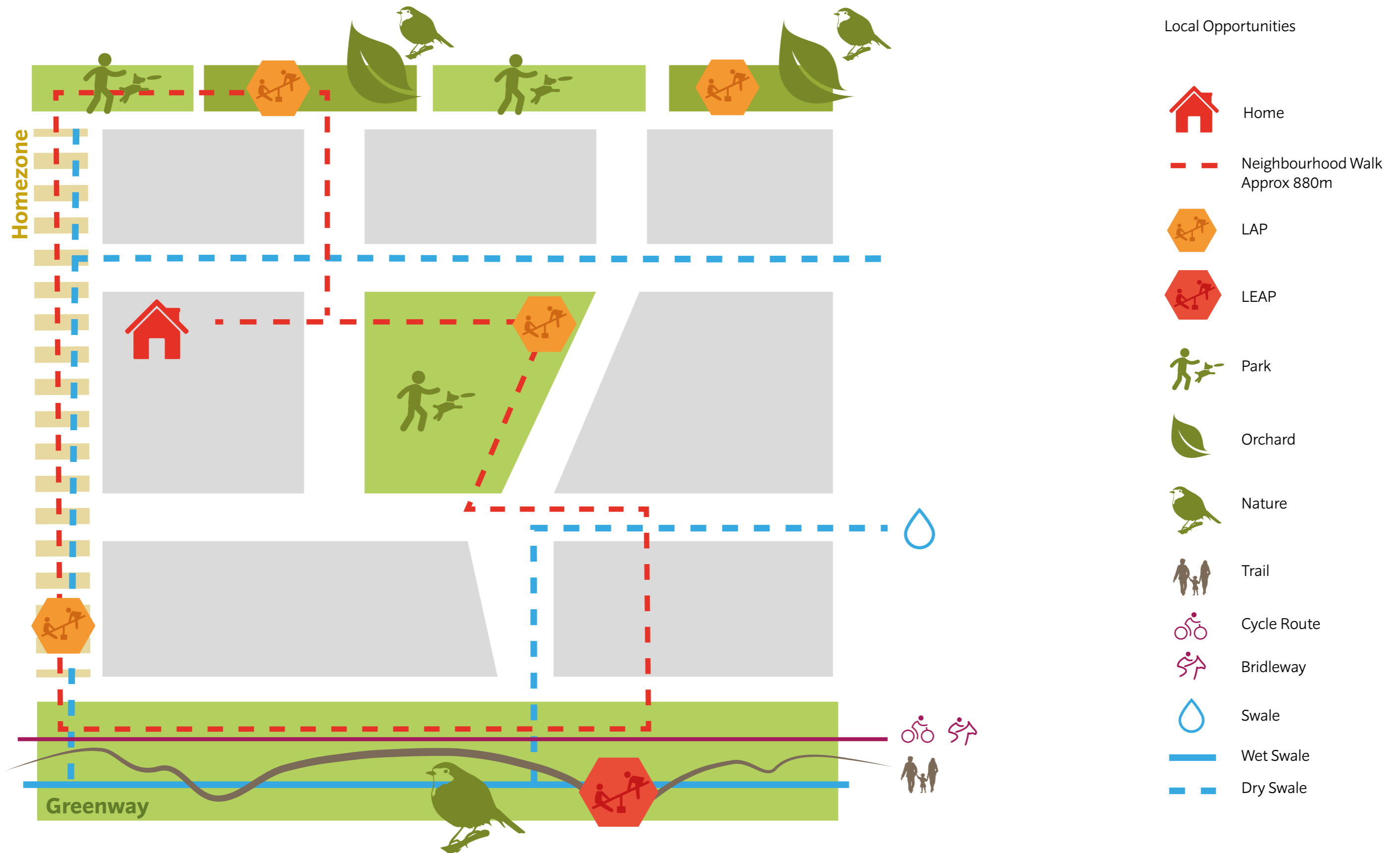
Note:
For details on frequency and number of individual interventions including 'Play on the Way' interventions, refer to **Appendix A.5** 'Assessment of Desirable and Other Possible Interventions'.

Figure 2.4 Play Strategy



Figure 2.5 Northstowe Opportunities Key Plan

This diagram and the following two diagrams identify a theoretical walk around a Northstowe neighbourhood and a walk from home to school. This helps illustrate the principles of 'Play on the Way' and other opportunities available. It includes access to water, nature, art trails etc.



'A Neighbourhood Amble' emphasises the potential quantity of opportunities available on your doorstep. This diagram, the previous diagram and the following diagram identify a theoretical walk around a Northstowe neighbourhood and a walk from home to school. This helps illustrate the principles of 'Play on the Way' and other opportunities available. It includes access to water, nature, art trails etc.

Figure 2.6 A Neighbourhood Amble

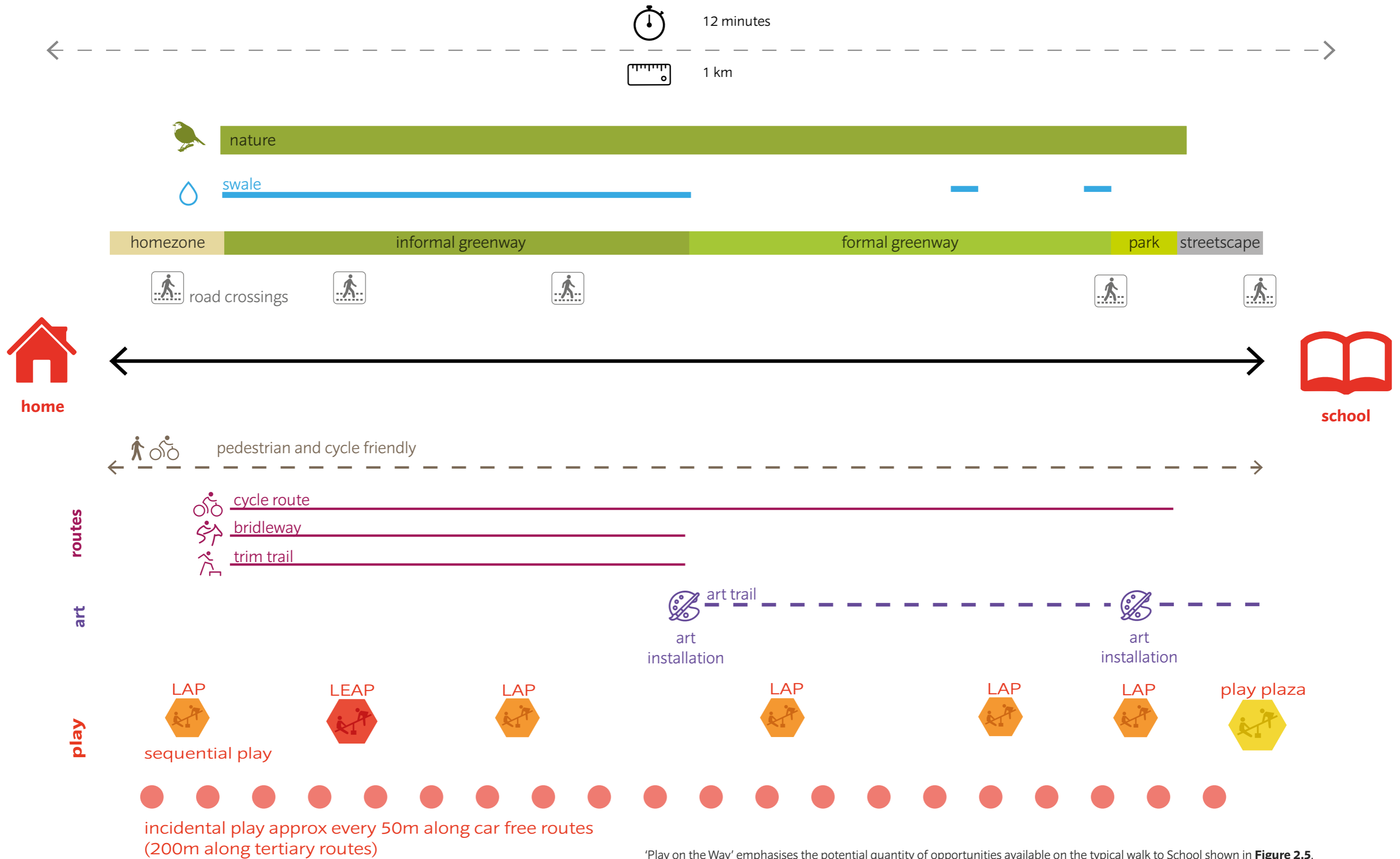


Figure 2.7 'Play on the Way'

'Play on the Way' emphasises the potential quantity of opportunities available on the typical walk to School shown in **Figure 2.5**. This diagram and the previous two diagrams identify a theoretical walk around a Northstowe neighbourhood and a walk from home to school. This helps illustrate the principles of 'Play on the Way' and other opportunities available. It includes access to water, nature, art trails etc.

2.6 Play and Sport Provision in the Wider Area

There are a number of existing play spaces in the vicinity of the Site including within Phase 1. The closest ones to Site are shown on **Figure 2.4**. The main play area in Longstanton is associated with the village recreation ground on the corner of Over Road and Spiggots Close. A further play area is located off Magdalene Close immediately to the north-west of the Phase 2 Site.

The existing settlement of Rampton Drift has a large area for play located within its boundaries featuring two formal play areas, mounded land forms with trees and open lawn areas.

A formal recreation area with sports pitches, a sports pavilion and associated parking will be located to the south-west of the Phase 1 Site, adjoining the western sports pitches of Northstowe Phase 2.

2.7 Management

Risk Management

Designing for play goes far beyond the process of selecting equipment from a catalogue. As a result, play safety is not simply a matter of compliance with equipment standards. Hence a balanced approach to risk management is essential.

Risk benefit assessment (RBA), as set out in guidance from Play England³² is a tool that supports a considered, balanced approach to risk management. It brings together considerations about risks and benefits alongside other factors in a single decision-making process. It is recognised by the Health and Safety Executive as a sensible approach to risk management.³³ RBA allows for guidance such as play equipment standards to be interpreted flexibly to reflect local context.

In keeping with good practice from workplace and office health and safety, RBA as set out in the Play England³² guidance adopts a narrative approach; it does not recommend the use of matrices or ratings schemes for risks. Instead, it takes users through a set of open-ended questions under the following headings:

“I am convinced that standardised playgrounds are dangerous, just in another way: When the distance between all the rungs in a climbing net or a ladder is exactly the same, the child has no need to concentrate on where he puts his feet. Standardisation is dangerous because play becomes simplified and the child does not have to worry about his movements.”

Helle Nebelong³⁴

- What are the benefits – for children and young people, and for others?
- What are the risks?
- What relevant local factors need to be considered?
- What are the options for managing the risk, and what are the pros, cons and costs of each?
- What precedents and comparisons are there?
- What is the risk–benefit judgement?
- How should the judgement be implemented?

2.8 Requirements for Further Play Consultation

Further on-going consultation will be carried out to produce a detailed brief for play provision across Phase 2 and within the Development Parcels.

On-site provision of all equipped play areas will require consultation with local children and young people.³⁵

Community engagement is best done through ‘co-creation’: the active involvement of informed professionals with experience of successful design approaches alongside children and families.³⁶

A representative consultation group of ‘play ambassadors’ will be established to inform the detailed design of proposals as per that utilised successfully in the case of phase 1.

Observation of how children and families actually use spaces is invaluable. When it comes to provision for young people meaningful, direct engagement with local groups of teenagers will be crucial in informing both the location and design of facilities.²⁵

Informal Play within Water Park



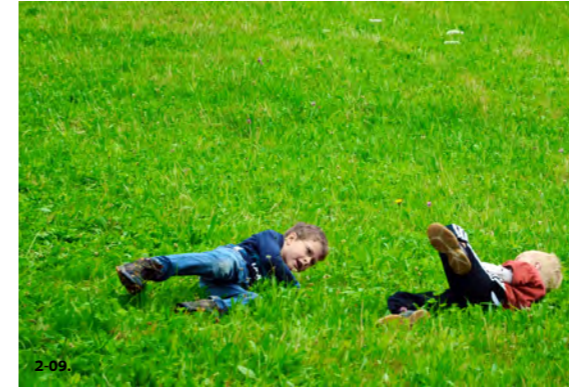
- Pond Dipping
- Nature Trails

Nature Theme Play / Informal Incidental Play



- Wooden elements
- Landform, logs, nature education

Informal play within Paddocks Parkland



- Play within the Paddocks

Play Area within Proximity to / Inspired by Paddocks Parkland



- Paddock landform inspired play

Incidental Play/ Senior Play within Formal Greenway and Town Park



- Incidental play elements within the landscape
- Music, texture, sensory, chess tables etc

Food, Productive Landscapes Themed Play



- Inspired by food, fruit, farming and produce
- Set within / next to orchards and allotments

Historic Themed Play Areas



- History inspired play spaces
- Archeology, planes etc..

Residential Playable Streets (Indicative Locations)



- Opportunities for play within a street scape
- Traffic calming

Education Hub/School Entrance Threshold Play Plazas



- Linear play and social spaces at transitional / arrival zones to schools

Play within a Formal Open Space Setting



- Feature play spaces
- Bold in design, colour and scale

Play Provision within Education Campus/School Ground



- Opportunities for thoughtful play spaces within the school grounds.

Linear Play/ Sports Link



- Integrate play and sports, observation and socialising
- Longer linear layout / elements

Figure 2.8 Examples of Play Themes

3.0 HEALTHY LIVING STRATEGY



“Your likelihood of being active is shaped by the environment you live in... for example, you’re more likely to ride a bike if there are safe and convenient cycle lanes.”

Susan Jebb, Professor of diet and population health, University of Oxford³⁷



Figure 3.1 The Categories of Healthy Living Measures

3.0 HEALTHY LIVING STRATEGY

3.1 What is Healthy Living?

This section covers healthy living design measures which should be incorporated within the masterplan in addition to those implicitly prescribed by the Phase 2 Design Code.

The proposed measures have been considered for their contribution to the following healthy living objectives which, based on scientific research, are considered to be fundamental drivers in improving physical and mental health and wellbeing:

- ➔ Increasing Physical Activity
- ➔ Providing Contact with Nature
- ➔ Promoting Positive Social Interaction
- ➔ Promoting a Positive Community Identity
- ➔ Promoting Access to Healthy Food
- ➔ Creating a Low Pollution Environment and Adopting to Climate Change
- ➔ Providing Inclusive Design/Design for All
- ➔ Providing access to sports
- ➔ Health and Wellbeing through Play (covered in **Section 2.0**)

These measures cover part of Northstowe's commitment to the Healthy New Towns agenda and are looked at in greater detail throughout this section of the report.

Additional measures that could be introduced in the future are subject to developer appetite, community, technology, affordability and funding.

3.2 Measures Embodied in the Northstowe Phase 2 Design Code

The Northstowe Phase 2 Design Code is based on the Northstowe Development Framework document (2012) and embodies many design principles that would directly or indirectly contribute to a healthy lifestyle for future residents. These are considered to be:

- Walking distance of approximately 1 km from the outer edge of Northstowe Phase 2 to the Town Centre, equating to 12 minutes at an average walking speed.
- A mixed use compact masterplan with all amenities and services within a short walking distance from home.
- High level of permeability providing a comprehensive network of interconnected pedestrian and cycle routes.
- Good public transport links integrated with pedestrian and cycle network.
- A network of varied interconnected public open spaces and pocket parks.
- Accessible areas of formal and informal green space.
- Active street frontages and facades providing passive surveillance.
- Architectural design principles that promote passive surveillance of public realm.
- Lighting strategy to promote actual and perceived sense of safety and security.
- Public toilets.
- Seating opportunities at approximately 100m intervals.
- Public changing facilities in the Town Centre and the Sports Hub.
- Drinking fountains.
- Infrastructure to facilitate 'Active Transport' (cycling and walking).
- Car-free town centre and busway.
- 10-15mph Speed limit to busway within central park area.
- Vehicular design speed of 20mph or below for the majority of the road network.
- Shared road surfaces and homezone-style road typologies.
- Traffic calming measures.
- Traffic calmed road crossings.
- Integration of a public art strategy to promote a vibrant urban experience.
- Inclusive design principles

3.3 Measures to Increase Physical Activity

Introduction

Increasing and sustaining physical activity across the life course is a strategic priority for South Cambridgeshire, with reduction in obesity a priority for Northstowe as a Healthy New Town (Refer to **Section 1.4**).

A key contributor to increased physical activity is the promotion of active travel, i.e. cycling and walking. Northstowe will therefore be designed to maximise opportunities for active travel not only recreationally but also embedded within everyday living.

Active travel is shaped by the environment we live in. People are more likely to use active travel on a regular basis when:

- ➔ It is convenient
- ➔ They feel secure, safe and relaxed
- ➔ Environments are vibrant, stimulating and sociable
- ➔ There are points of interest along the way
- ➔ Routes are clearly legible
- ➔ The environment is pleasant to be in

The strategy considers active travel to include:

- ➔ Walking and running
- ➔ Cycling (including trikes, tandems and hand-cycles)
- ➔ Use of hand operated wheelchairs
- ➔ Walking with aids
- ➔ Skateboarding, scooting and roller blading

'Implementing audio or visual aids to crossings and intersections can reduce the boundaries posed by roads on pedestrian mobility. They make it easier for people with impairments to manoeuvre junctions independently.'

Arup, Cities Alive: Towards a walking world³⁹

Evidence Base:

The benefits of walking and cycling for physical and mental health are well documented.⁴⁰ However, the National Travel Survey has shown that distances walked fell by around 30% between the 1970's and 2013, with one fifth of respondents saying that they rarely or never walk for 20 minutes or more.⁴¹ Evidence suggests that a suite of complementary measures, including built environment design, are necessary if this trend is to be reversed.

Increasing how much someone walks or cycles may increase their overall level of physical activity, leading to associated health benefits. These include:

- ➔ Reducing the risk of coronary heart disease, stroke, cancer, obesity and type 2 diabetes
- ➔ Keeping the musculoskeletal system healthy
- ➔ Promoting mental wellbeing

An increase in walking or cycling can also help:

- ➔ Reduce car travel, leading to reductions in air pollution, carbon dioxide emissions and congestion
- ➔ Reduce road danger and noise
- ➔ Increase the number of people of all ages who are out on the streets, making public spaces seem more welcoming and providing opportunities for social interaction
- ➔ Provide an opportunity for everyone, including people with impairment, to participate in and enjoy the outdoor environment

(NICE, 2012: Physical Activity: Walking and Cycling, Public Health Guideline PH41.⁴⁰)

Further evidence statements underpinning the recommendations are found in **Appendix A.2** Additional Evidence Base for Measures to Increase Physical Activity.

Proposed Measures

This section of the strategy sets out the specific measures proposed to enable active travel as the easy or default choice in Northstowe.

Promotion of a Vibrant and Sociable Urban Experience

Promotion of a vibrant and sociable urban experience with incidental opportunities for positive social interaction. These to include:

- ➔ Incidental social spaces
- ➔ Opportunities for incidental play
- ➔ Visually stimulating features such as public art and sculptural street furniture
- ➔ Clearly legible routes, way markers
- ➔ Clear identification of shared usage spaces to foster an atmosphere of mutual respect
- ➔ Pedestrian priority shared surface spaces (homezone-style streets)
- ➔ Provision of additional secure and dry bicycle storage including storage for helmets, scooters and skateboards
- ➔ E-bike and mobility charging points across town

Additional Potential Measures:

- ➔ Audio-visual aids at road crossings
- ➔ Intelligent lighting to optimise use of informal routes after dark

'Regular physical activity is a key contributor to energy balance, helping to prevent obesity and excess weight and reduce the risk of many chronic conditions.'

Obesity and the environment: increasing physical activity and active travel, Public Health England³

Routes

Routes have the potential to become a key driving force for increasing physical activity in Northstowe. They are an essential tool for shaping the way in which the end user interacts with their surroundings.

They aid orientation across site and beyond, facilitate active travel, offer mental stimulation, enable social interaction and promote a sense of community and belonging.

Routes serve people with different interests and activity levels. These can range from running, horse riding, cycling, BMXing, skateboarding and skating to activities like photography, interaction with nature, puzzles and art, dog walking or for simply getting from A to B.

Routes could be defined by strong colours, themes, characters or branding. They should not stop at the boundary of the site and must tie into a larger network of other routes in the immediate and wider context. They must be accessible and obvious and promoted strongly. This can be via permanent methods such as well designed and implemented interpretation, signage and wayfinding, or via temporary changing solutions such as regularly updated newsletters, maps and leaflets. Routes can become a tool that promotes active lifestyles, social interaction, and a stronger community integration and cohesion.

‘Through tailoring chosen routes to personal energy levels, mood and time available (taking into consideration diverse terrains...) people can proactively build stamina, strength and skills over time. This emphasises the value of linear parks, greenways and safe pedestrian infrastructure in supporting walking and wider physical activity participation with the living environment’

Brown et al⁴²

Because pedestrians travel relatively slowly, they have greater travel navigation needs to avoid lengthy detours.

Arup, The Walkable City³⁹

Proposed routes are identified on **Figure 3.2: Routes Strategy** and **Figure 3.3: Active Routes Strategy** and should include:

- ➔ Ecological trail
- ➔ Art trail
- ➔ Town Centre and Town Square/Park loop
- ➔ Wider Town loop
- ➔ Bridleway
- ➔ Heritage trail
- ➔ Pump track/Skateboarding/Scootering/ Roller blading route
- ➔ Orientation/vantage points - Designated walking routes will benefit from accessing vantage points within site. These aid orientation and will promote appreciation of the town and surrounding areas
- ➔ Jogging/running routes of varying lengths to suit different activity levels
- ➔ Routes with regular exercise stations. Exercise stations should be bespoke and in keeping with surrounding landscape design. these should include trim trails and outdoor gyms.

Routes should also be implemented for evolving / seasonal activities. These should work in addition to the permanent routes and be managed by newsletters, leaflets, a website or mobile app. This would allow for an evolving initiative that maintains ongoing interest and in addition promotes active travel in and around Northstowe. These could include:

- ➔ Photography
- ➔ Puzzles
- ➔ Seasonal activities at Easter, Halloween, Christmas etc.
- ➔ Seasonal ecological interest including varying wildlife, plants and seasonal colours

Routes will suit those of varying physical ability and regular seating will enable use by the less-abled.

Routes have the potential to become a key driving force for healthy living in Northstowe. They are an essential tool for shaping the way in which the end user interacts with their surroundings.

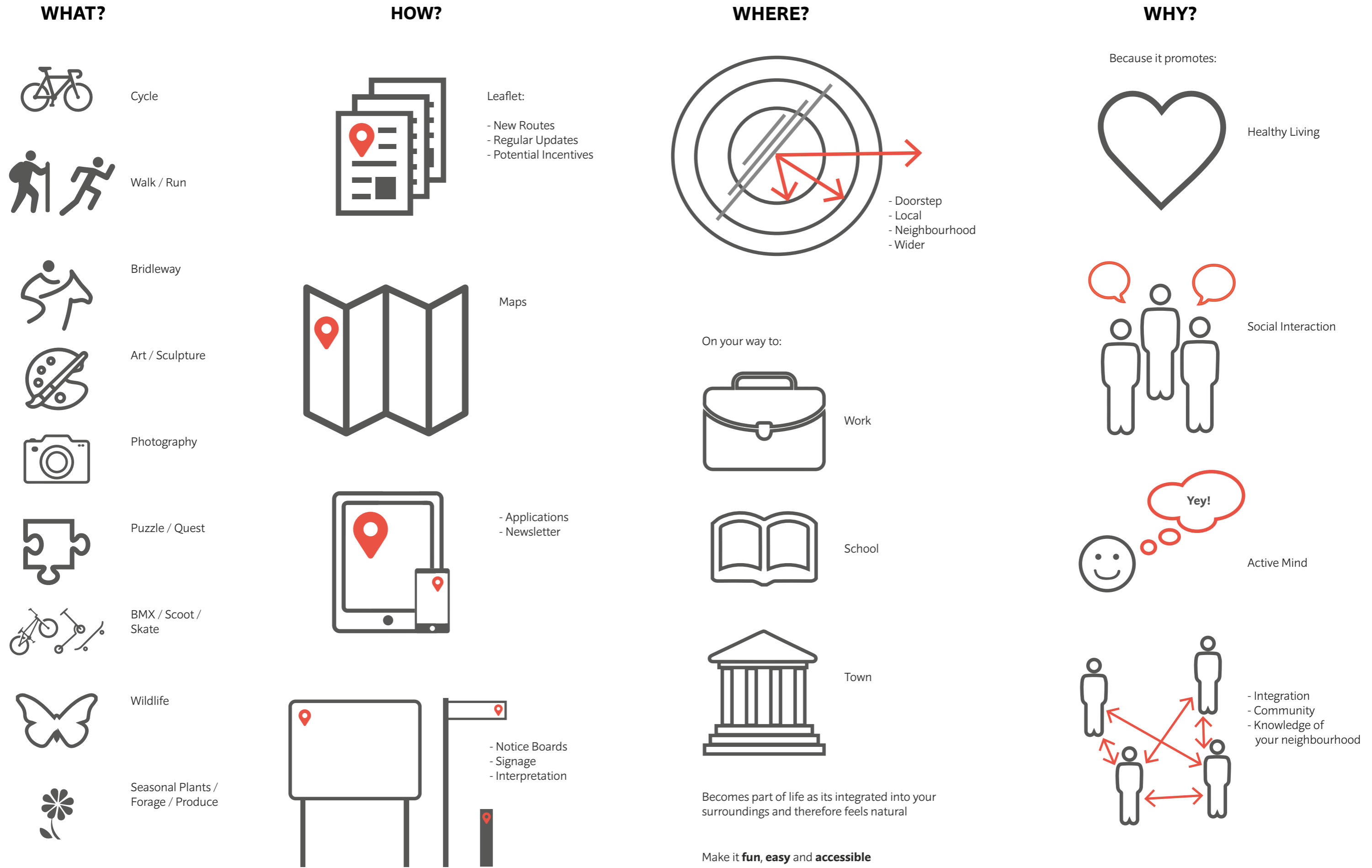


Figure 3.2 Routes



- KEY
- Ecological Trail
 - Art Trail
 - Pump Track/ Skateboarding Route
 - Town Centre Loop (2km)
 - Town Square/Park Loop (1km)
 - Wider Town Loop (5km)
 - Existing Bridleway
 - School / Sports Link
 - 🎨 Public Art Focal Point
 - 🕒 Historic Interpretation Point
 - 🌟 Orientation/Vantage Point

Figure 3.3 Routes Strategy

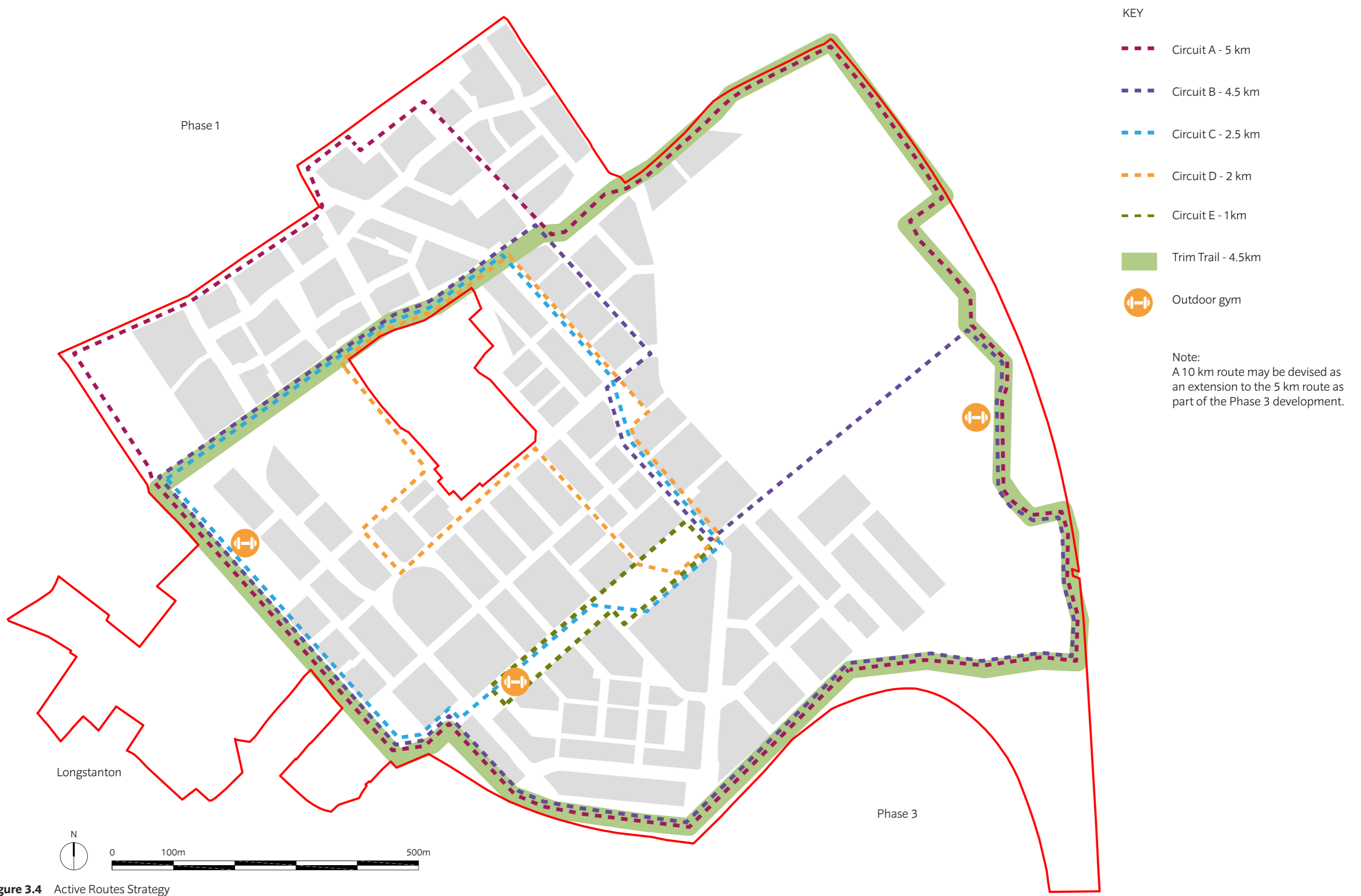


Figure 3.4 Active Routes Strategy



3-22.

Walking Routes



3-19.

Cycle Routes



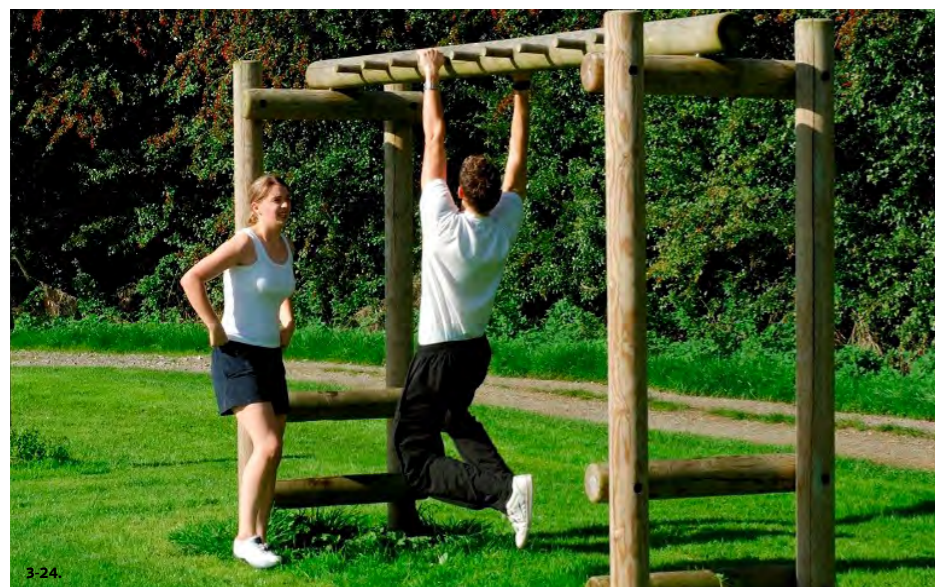
3-23.

Bridleways



3-20.

Running Routes



3-24.

Trim Trails



3-21.

Roller-blading Routes / Local Events / Competitions

Additional Potential Measures

Further measures that fall outside the scope of this document but that can contribute to improving active travel across town should be considered, including:³⁹

- ➔ Car free initiatives: temporarily removing cars from certain areas within the town.
- ➔ 'Vision Zero' policies: Eliminating road-traffic fatalities through speed-reduction and safety measures.
- ➔ Pedestrian and health campaigns: Government, schools and businesses may initiate programmes aimed at improving health through walking, such as Walk or Cycle to Work Week.
- ➔ Local champions: Celebrities, local heroes and champions can be powerful advocates of healthy living.
- ➔ Pop-up and temporary initiatives: Temporary initiatives can be used to transform spaces usually deemed unattractive to become destination points.
- ➔ Open street events: Public events that take place on temporarily closed streets.
- ➔ Street fairs and markets.
- ➔ Bicycle sharing scheme across town with opportunities for coordination with provision in Cambridge.

3.4 Measures to Provide Contact with Nature

Introduction

The benefits to physical and mental health of contact with nature can be substantial and are well documented.⁴³ This ranges from direct benefits, such as reduced stress to the indirect benefits afforded by provision of attractive natural environments which encourage people to be active, to experience positive social contact and a sense of achievement.⁴² While the extent and consistency of this evidence across health conditions is variable⁴⁴ the overall trend is consistent and positive.

Provision of diverse and distinct green spaces across the Phase 2 Site will enable people to enjoy a rich variety of experiences and activities within them while catering for people's personal preferences, maintaining interest over time and providing opportunities for increased biodiversity.

They will also contribute to a 'sense of place' at Northstowe, engendering feelings of pride and an increased commitment to shared stewardship.

The key landscape elements provided within Phase 2 are illustrated on **Figure 3.5: Contact with Nature**

"Through a better interaction with the world around them children will learn valuable life skills."

David Yearley, Head of Play Safety RoSPA²⁵

Evidence Base

'Evidence tends to show that, at a population level, higher levels of exposure to natural environments are associated with lower all-cause mortality, rates of diabetes type 2, cardiovascular and respiratory disease, and more positive maternal and pregnancy outcomes'⁴⁴

Further evidence statements underpinning the recommendations are found in **Appendix A3: Additional Evidence Base for Measures to Provide Contact with Nature**.

Proposed Measures

Proposed interventions should include:

Multi-Sensory Gardens

- ➔ Planting areas with a high proportion of fragrant plants and visual interest throughout the seasons. Planting in raised beds or elevated areas for easier reach and interaction by people with physical impairments.

Engagement with Water

Access to and engagement with water through the following means:

- ➔ Decking/platforms on the water's edge of the retention pond (Water Park)
- ➔ Bridges/stepping stones over swales/rills
- ➔ Modified swales to hold water
- ➔ Simple water features in the Greenways (these should be combined with the provision of watering points for the community orchards and allotments)
- ➔ Water features to provide audible experience

Plant Selection for Sensory Experience

Selection and design of planting areas to promote and sensory experiences including:

- ➔ Autumnal foliage
- ➔ Bark and leaf texture
- ➔ Informal / non regimental tree planting
- ➔ Floristic and fruiting interest
- ➔ Scented flowers and foliage
- ➔ Leaf rustle (e.g. Aspen)
- ➔ Fallen autumn leaves (e.g. Maple)
- ➔ Fruit and berries

Sensory Trail/Barefoot Trail

- ➔ Sensory trail with incorporating interactive audio features.
- ➔ A trail with varied ground surfaces that can be distinguished under foot, especially when barefoot.
- ➔ Trails to include interpretation signage and seating.

Sensory Experiences in Pocket Parks and Small Open Spaces

Sensory green interventions within pocket parks and small open spaces can greatly enhance people's interaction with nature in these areas and promote relaxation. A number of interventions should be considered:

- ➔ Living green walls
- ➔ Bird nesting boxes
- ➔ Sensory planting
- ➔ Seating in shady as well as sunny locations

Contact with Nature

There are many ways in which contact with nature can be encouraged. These can be simple yet effective interventions and should include:

- ➔ Bird hides
- ➔ Feeding stations
- ➔ Bird nesting boxes
- ➔ Bird nesting bricks in buildings
- ➔ Bug towers
- ➔ Log piles
- ➔ Pond dipping
- ➔ Den building

"If you want to do something nice for a child, give them an environment where they can touch things as much as they want."

Buckminster Fuller, 1972⁴⁵

Green Spaces for Positive Social Interaction

Green open spaces offer many opportunities for positive but undemanding forms of human connection. These may be one-off and momentary, for example commenting on the weather passing, or more regular between frequent users who come to recognise each other over time.⁴²

Proposed measures encouraging this type of interaction include:

- ➔ Areas for dog walking
- ➔ Outdoor gyms
- ➔ Play areas
- ➔ Places to sit and socialise
- ➔ Quieter, reflective zones

Additional Potential Measures

Further measures that fall outside the scope of this document include providing a sense of achievement through:

- ➔ Volunteering opportunities to manage green space within Northstowe area
- ➔ Opportunities to adopt planting areas within public realm
- ➔ Opportunities for community to be involved in environmental enhancement measures
- ➔ Opportunities to manage local wildlife habitat (to follow)

Engagement

Engagement with nature should be encouraged and promoted. These can be done via the use of leaflets, maps, info sheets, apps and open days.

Community groups, schools and local businesses can all play their part in educating further. Schools should have a conservation area / wildlife garden and can run initiatives like an 'Eco Committee' to educate and involve children from a young age.

Refer to **Figure 3.5**: Contact with Nature for locations of the proposed measures.



Wildlife watching



Den building opportunities



Bug Towers



KEY

- Primary Wildlife / Nature Corridor
Opportunities for den building, bird hides, log piles bug towers etc
- Attenuation Ponds - Engagement with Water. Opportunities for pond dipping, bird hides, bird watching, feeding stations etc
- Secondary Opportunities for Interaction with Wildlife / Nature. Opportunities for feeding stations, nesting boxes, bug towers etc
- Swales- Engagement with Water Opportunities for bridges / stepping stones over swales / rills
- Pocket Parks - Sensory Experiences
- Wildlife Garden / Conservation Area within School

Opportunities for the following could be located but should not be limited to the following areas:

1. Multi-Sensory Garden
2. Sensory Intervention
3. Optimise Blue Space
4. Nature interventions in pocket parks
5. Area for dog walking
6. Places to socialise close to nature
7. Barefoot Trail

Figure 3.5 Contact with Nature Strategy

3.5 Measures to Promote Positive Social Interaction

Introduction

There is growing interest in the contribution of positive social interaction to mental health and wellbeing. Specifically, taking part in social activities, having good relationships and strong social networks (or social capital) has been shown to lead both to individual health and community resilience.

The Government's foresight report; Mental Capital and Wellbeing: Making the most of ourselves in the 21st century (2008)⁶⁵ highlighted the challenges and opportunities for this associated with demographic, economic and technological changes which are shaping when, where and how people come into contact with each other.

More recently, the impact of loneliness, particularly of older people, has been the focus of considerable policy and civil society attention. For example, the Campaign to End Loneliness partnership, launched in 2011, is working at a policy and community level to raise awareness of, and take action on, loneliness as a public health priority. Loneliness is also the focus of a commission established to continue the work of the late MP Jo Cox.

A number of other initiatives take an intergenerational approach or bring together different groups. For example, GoodGym members run in groups to do physical tasks for community organisations and run as individuals to make social visits or provide practical support to isolated older people.

While interventions to tackle and prevent loneliness are multifaceted, age-appropriate transport and accessibility plus opportunities for volunteering and participation can be built in to the physical design of towns and neighbourhoods. In the context of Northstowe, there is the opportunity to design in space and features which enable both age-specific healthy activity and activity which brings different people together, as well as to help sustain connections with surrounding towns and villages where new residents are likely to have existing networks.

The Northstowe Phase 2 Section 106 legal agreement provides for a contribution of £1 million for community development.

Evidence Base

Building on the evidence gathered in the foresight report cited above, the New Economics Foundation developed a set of simple, universal actions that anyone can do at an individual level to promote wellbeing: Connect, Be Active, Take Notice, Keep Learning, and Give. It is worth noting that they were not intended to be understood as the five strongest determinants of wellbeing, but a significant contribution to this. As such, they have been widely adopted or adapted including by the Department of Health

and in evaluation and procurement frameworks. While built and landscape environment design might contribute most directly to 'Be Active', the NHLYP Strategy proposes measures which will also facilitate interaction through both connectivity and provision of sites for recreational such as the community gardens mentioned in **Section 3.7**.

Effective social networks contribute to physical and mental health and walkability a key ingredient in engendering neighbourliness. For example:

'Fewer social networks may be associated with a number of health outcomes including obesity, cardiovascular disease, mental health problems and increased rates of mortality. Neighbourhood designs... most likely to promote social networks are mixed use and pedestrian oriented, enabling residents to perform daily activities without the use of a car. Studies have shown that as traffic volumes increase, people's sense of neighbourliness decrease.'

Health Impacts of the Built Environment: A Review The Institute of Public Health in Ireland, 2006⁴⁶

Further evidence statements underpinning the recommendations are found in **Appendix A4: Additional Evidence Base for Measures to Promote Positive Social Interaction**.



Community involvement and interaction

Proposed Measures

Proposed interventions to promote positive social interaction should include:

- ➔ Provision of events spaces for community gatherings and celebrations of different sizes
- ➔ Provision of busking spaces within the town centre
- ➔ Proposed communal space within designated allotment and orchard areas
- ➔ Provision of communal gardening spaces in communal courtyard spaces
- ➔ Provision of picnicking and barbecue spaces
- ➔ Provision of flexible social meeting spaces (some under cover) for a variety of user groups
- ➔ Design of garden boundaries to ensure privacy and also facilitate social interaction
- ➔ Generous pedestrian friendly circulation spaces in front of school entrances
- ➔ Promotion of 'Homezone' style access to residential areas
- ➔ Provision of neighbourhood news/notice boards
- ➔ Provision of informal outdoor exercise spaces
- ➔ Provision of social spaces catering for older teenagers
- ➔ Designation and management of outdoor spaces as semi private communal space

Additional Potential Measures

- ➔ Management of green space by voluntary groups and/or social enterprise
- ➔ Provision of retail space for not for profit/social enterprises within town centre
- ➔ Provision of a screen to show sporting, music events and outdoor cinema etc.

3.6 Measures to Promote a Positive Community Identity

Introduction

A positive community identity is associated with health and wellbeing. It can be derived from a 'sense of place', which is more physical, or a 'sense of belonging', which is more social. This strategy seeks to promote a positive community identity through design measures which will maximise the opportunities for people not only to come together but to take pride in Northstowe as a place to live, work and visit. For example this can take the form of learning about and sharing its history, or taking on voluntary or paid roles developing and maintaining its community assets.

'Children's use of external space act as generators of community life'²⁸

Evidence Base

Place Attachment

Place attachment is the bond that evolves through emotional connection, meaning and understandings of a specific place. Attachment may serve to promote and encourage environmentally responsible behaviour appealing to individuals' self-identity and dependence.

'Place Attachment' therefore is considered to be good for mental wellbeing. 'Attachment and meaning emerge from a variety of experiences and situations, and are often related to parks, green spaces, and natural areas.'

Green Cities: Good Health, University of Washington⁴⁷

Views of a neighbourhood were found to be significant in influencing people's attachment, and these do tend to be lower in places of relative deprivation.

Place Attachment in Deprived Neighbourhoods: The impacts of population turnover and social mix⁴⁸

Participation and Stewardship

Livingston, Bailey and Kearns⁴⁸ also note that people who are civically active are more likely to be attached although there are questions about the direction of causality. It may be that civic engagement leads to a greater sense of attachment but it could also be the case that feeling more attached to a place leads people to take action to protect or enhance it.

The Royal Commission on Environmental Pollution (2008)⁴⁹ suggests that activities supported and run by volunteers, including site management roles, can be effective in engaging 'hard to reach' groups who lack confidence in accessing green infrastructure or feel unsafe doing so alone.

Proposed Measures

Proposed interventions to promote a positive community identity should include:

- ➔ 'Welcome Pack' for all new Residents
- ➔ Place naming of neighbourhoods and streets informed by local heritage and landscape context
- ➔ Interpretation of historic landscape and cultural heritage in new design proposals
- ➔ Memorable, inspiring landmark design of the town centre
- ➔ Distinct and memorable design of local pocket spaces and areas of local townscape significance
- ➔ Branding of signage and street furniture

Additional Potential Measures

- ➔ Well established events programme for locals
- ➔ Public art programme involving local community and education facilities
- ➔ Community planting programme
- ➔ Local (land resource) based social enterprise



3-29.
Community Events

3.7 Measures to Provide Access to Healthy Food/Productive Landscapes

Introduction

While broader programmes to address the complex challenges of poor nutrition and obesity are not within the scope of this strategy, the design of Northstowe to promote healthy living can play an important role. This can be done by providing or supporting measures which enable awareness of and access to healthy food. In particular, the provision of community spaces, such as allotments, and the integrating of edible environments in public spaces, are opportunities which should delight and engage the community, encourage people to be active outdoors, and directly provide fresh and sustainable food.

Research has shown that poor diet has a direct impact on health: an estimated 70,000 premature deaths in the UK could be avoided each year if UK diets matched nutritional guidelines.⁵⁰

From Evidence into Action: Opportunities to Protect and Improve the Nation's Health.⁵⁰

'Being overweight is associated with increases in the risk of cardiovascular disease, diabetes and some cancers.' It is also associated with poor mental health in adults, and stigma and bullying in childhood.

Childhood Obesity – Brave & Bold Action. House of Commons Health Committee.⁵¹

Evidence Base

Much of the evidence concerned with, for example, the health benefits of gardening, is an extension of the evidence around the health benefits of access to nature described in **Section 3.4**. However, the social aspect of community gardening as well as the healthy food produced, add additional value to health across the various ages and groups. The recent review by David Buck, Gardens and Health: Implications for Policy and Practice⁵² is a good source of research and good practice.

Proposed Measures

Measures to support improved access to and awareness of healthy food options should include:

- Requirement for house builders to include fruit trees within private gardens.
- Requirement to ensure that house builders provide adequate depth and quality of soil within private garden areas for resident growing of fruit and vegetables.
- Provision of fruiting espaliers to boundary walls
- Interpretation within Greenways with information on foraging foods and how to include in recipes.
- Public realm, play areas and school grounds to include planting palette of foraging food.
- Market stall space within Town Centre Square.
- Proposal to include secure Community Garden within Formal Greenway providing vegetable growing areas and space for socialising and outdoor learning. Associated infrastructure to include interpretation, seating, water points and potential pizza oven. The area should include areas of hard standing to ensure accessibility by all.
- Provision of communal herb gardens within communal courtyard areas and commercial roof terraces.

Infrastructure Requirements

The following infrastructure requirements should be met:

- Water taps within allotments, community gardens and community orchards.
- Notice boards and relevant interpretation signage.
- Seating.
- Communal composting areas.

Additional Potential Measures

- Retail floor space within town centre for locally produced food outlet.
- Each of the primary, secondary and SEN schools to have allocated space for food growing and supply of produce to the school canteen.
- Space allocation for beehives on green roofs to reduce conflict between flight paths and pedestrians.
- Restricting fast-food outlets near schools and leisure facilities to reduce ease of access to these types of foods.
- Potential for the proposed orchards to be associated or/and adopted by local community groups and schools.



Orchards



Food Market



Figure 3.6 Access to Healthy Foods Strategy

3.8 Measures to Create a Low-Pollution Environment and Adapt to Climate Change

Introduction

Poor air quality has a negative impact on health and wellbeing, particularly the very young, the elderly and people with existing health conditions. The National Planning Policy Framework (DCLG, March 2012)⁵⁴ is clear that new and existing developments should not put people at risk of being adversely affected by unacceptable air (and other) pollution. Additionally, emissions of some airborne pollutants are known to damage the health of ecosystems, which, in turn, can impact on human health. More positively, land-use planning and design can play an important role in driving air quality improvement, mitigating climate change and adapting to its effects - thus improving population health.

This strategy, therefore, proposes measures to help create a biodiverse and low-pollution environment which is healthy for all and ensures the maximum benefit - and least risk - from being outside in and around Northstowe.

“A healthy environment underpins a healthy population,”

Margaret Chan⁵³

Evidence Base

Air quality and health

‘In the UK it has been estimated that the mortality burden of long term exposure to particulate matter (PM2.5) in 2008 was equivalent to nearly 29,000 premature deaths in those aged 30 or older... It is likely that removing exposure to all PM2.5 would have a bigger impact on life expectancy in England and Wales than eliminating passive smoking or road traffic accidents.’

Land-use Planning and Development Control: Planning for Air Quality. IAQM, January 2017⁵⁵

Biodiversity and air quality

The Joint Nature Conservation Committee (JNCC)⁵⁶ states that while ecosystems can be negatively affected by poor quality air, trees and other vegetation have a role to play in absorbing pollutants through their leaves and needles, providing a natural filtering capacity to clean the air.

Climate Change and Health

The effects of climate change are greatest on people in vulnerable circumstances. For example, the August 2003 heat wave was associated with a large short-term increase in mortality. Overall, there were 2,139 (16%) excess deaths in England and Wales. By the 2080's, it is predicted that an event similar to that experienced in England in 2003 will happen every year. Evidence is also emerging of the health impacts of floods, particularly mental health. For example, in one study following the widespread floods in 2007, self-reported symptoms of mental disorders, distress and PTSD were significantly greater for those suffering disruption to essential services.⁵⁷

The UCL Lancet Commission on Climate Change has provided evidence that action to combat climate change can lead to improvements in health. In particular, meeting targets to reduce greenhouse gases will require more walking and cycling and less motor vehicle use, bringing substantial health benefits from reduced cardiovascular disease, depression, diabetes and dementia.

Proposed Measures

Measures to create a low-pollution environment and minimise the effects of climate change should include:

- Reduction in car speeds to reduce emissions at source including increasing pedestrian priority surfaces
- Hedgerow planting between pollution source and pedestrian/cycleway environment
- Planting design to include particulate filtering foliage plants
- Pollution filtering green walls and particulate absorbing moss planting to all blank facades facing Primary Routes
- Installation of light coloured high albedo rated pavement materials for most intensely used pedestrian and cycleway routes to reduce heat island effect
- Provision of planting and structures for shade
- Provision of water features to improve local microclimate, proving amenity and calming effect – therefore reducing stress
- Provision of planting and other screening for protection from strong winds

Additional Potential Measures

- Installation of NO2 fixing surfaces including pavements at thresholds to schools
- Provision of green roofs to public buildings to reduce heat-island effect



Hedgerow planting to help reduce emissions



Planting for shelter and shade

3.9 Design for All/Inclusive Design

Introduction

Design for all started by looking at barrier free accessibility for people with disabilities but has become a strategy for mainstream inclusive solutions. It is about designing environments for people of all ages and abilities, including people with multi-sensory impairments and complex communication needs. In the long term Northstowe will have a broad ranging demographic including older people and people with physical and mental impairments.

It is vital therefore that the town can accommodate for the needs of older people and people with additional needs.

Evidence Base

'Participation in sport and physical activity has significant physical, mental and emotional benefits, yet over 300,000 people with dual sensory loss in England encounter a number of barriers in accessing and participating in sporting activities'.

Livingsport/Sense September 2017⁵⁸

Proposed Measures

Measures to promote inclusive design for the benefit of older people and people with physical impairment should include:

- ➔ Provision of spaces for socialising and seated exercise close to home
- ➔ Provision of spaces that encourage intergenerational positive social interaction
- ➔ Provision of quieter spaces that allow observation of more active activity without direct participation
- ➔ Raised planters within sensory gardens, allotments and communal gardens
- ➔ Fully DDA compliant design avoiding slippery surfaces and trip hazards
- ➔ Provision of specialist outdoor exercise equipment to enable specialist strength, balance and movement exercises (For example refer to: Richter Spielgerate: Growing Older range)
- ➔ Paving materials with contrasting colour to aid visual impairment
- ➔ Provision of clutter-free public spaces and streetscape environments
- ➔ Provision of enlarged and easy to use push-buttons
- ➔ Provision of audio-visual aids at crossings
- ➔ Provision of easy circulation routes for people with walking aids including rollators and walking frames
- ➔ Provision of regular seating including provision for back and armrests
- ➔ Provision of public toilets
- ➔ Provision of seating in shade
- ➔ Sensory stimulation through planting design and audible sculptures and play equipment (For example ref: Richter Spielgerate Graubner range)
- ➔ Provision of enlarged writing on signage

'Two environmental factors increased the probability of (older people) surviving: having walkable green space near people's homes and residents having a positive attitude to their community'

5- Year Survival Rate Study on 3,000 People in Japan⁵⁹

Meet the Needs of Older People

- ➔ Provision of gentle outdoor games such as chess, draughts, boules etc.
- ➔ Provision of outdoor exercise spaces for gentle group exercise including T'ai-chi, Yoga
- ➔ Provision of opportunities for sports favoured by older people including badminton, table tennis, bowls and canoeing

Creating Pro-Social Places

- ➔ Facilitate positive, safe and natural interactions amongst people and foster a sense of community, integration and belonging
- ➔ Provide spaces with flexible use (including participation and volunteering opportunities)
- ➔ Provide street furniture for resting and chatting
- ➔ Orientate entrances to promote social gatherings
- ➔ Avoid long, unchanging facades that extend across large areas and cause people's minds to dwell on negative thoughts
- ➔ Prioritise pedestrian connections over car use

Safety and Security

- ➔ Provide features that aid orientation and identification such as distinct landmarks and wayfinding cues
- ➔ Reduce perceived risks from traffic by providing appropriate design of roads, good street lighting and secure crossing points
- ➔ Provide places where people can feel safe and relaxed in order to counteract perceived risks posed by other people (such as being robbed), risk from traffic (such as being run over) and risk of getting lost (particularly pertinent for those with dementia)

Designing for the Autistic Spectrum

- Provide space and areas of play with reduced sensory stimulation to avoid and reduce over stimulation. These are best located next to other play areas
- Catering for children with fear of dogs and limited mobility to take avoiding action

Dementia Friendly Design

People with dementia use 'landmarks' and familiar objects to navigate their way around. Legibility of signage and familiarity with neighbourhoods and places is therefore vital. The more distinctive the places and streets and the greater number of landmarks within the Town the easier it will be for dementia sufferers to remain orientated and independent. There is therefore, a great need for diversity within the architecture and public realm design.

It is proposed that quiet non-stylised seating places surrounded by familiar objects are provided within the Town Centre close to amenities including public conveniences to cater specifically for dementia sufferers.

Additional dementia friendly design requirements to be considered:

- Provision of spaces for chair-based or seated exercises
- Legible bold signage with good contrast between text and background
- Contrast between the sign and the surface it is mounted on. This will allow the person to recognise it as a sign
- Labelling i.e. public toilets to include image, braille and lettering
- Writing in regular font, not capital only font
- Affix signs on the door that they refer to
- Affix signs at eye-level and well lit
- Avoid highly stylised or abstract images or icons
- Affix signs at key decision points
- Affix 'exit' signs within internal areas
- Specific lighting requirements: avoid pools of bright light or deep shadow, avoid highly reflective or slippery ground surfaces – reflection can cause confusion
- Surfacing: Avoid bold patterns as these can cause problems to people with perceptual problems. Plain or mottled surfaces are easier
- Inclusion of quiet spaces near areas of activity (Town Centre)
- Public toilets - incorporating unisex toilets to allow someone to have assistance without causing them or other user's embarrassment
- Provision of toilet seats with visual contrasting colour to the walls and rest of the toilet as they are easier to see if someone has visual problems
- Seating to be easily recognisable as seating. People with dementia will find this easier, i.e. a wooden bench would be preferable to an abstract metal Z-shaped bench

Well-designed, pedestrian signage and wayfinding increases ease of navigation across town. In order to assist people with dementia, signage should include visual cues to aid orientation.

Towards a Walking World, Arup³⁹



Sensory stimulation and socialising opportunities



Raised planters within sensory gardens, allotments and communal gardens

3.10 Measures to Promote Access to Sports

Introduction

Providing convenient access to formal and informal sports provision encourages people to take part in individual and team sport activities. These opportunities are a catalyst for increased physical activity as well as boosting people's confidence and promoting strong positive social interaction, thereby improving people's health and wellbeing.

Social networks extend beyond the people taking active part in the sport by way of spectators and groups of people taking active part in the organisation of special sporting events.

Evidence Base

There is an overwhelming amount of scientific evidence on the positive effects of sport and physical activity as part of a healthy lifestyle. The positive, direct effects of engaging in regular physical activity are particularly apparent in the prevention of several chronic diseases, including: cardiovascular disease, diabetes, cancer, hypertension, obesity, depression and osteoporosis.

Proposed Measures - Formal Sports

Formal sports provision is provided as part of the Western and Eastern Sports Hubs and school playing fields in accordance with the existing Sports Strategy.

For details of the provision, refer to **Section 4: Implementation Plan**.

Proposed Measures - Informal Sports

The inclusion of informal sports provision within the open space provides further opportunity for physical activity, play and positive social interaction.

For proposed locations of formal and informal sports provision, refer to **Figure 3.7: Sports Provision**.

Outdoor Gyms

- It is proposed that three outdoor gyms are provided across site, covering a comprehensive range of equipment to suit different age groups

Informal Hooped Ball Sports Provision

- Provision of single netball and basketball hoops is proposed within the paved Formal Greenway recreation areas to encourage informal play

Volleyball Area

- Provisions for a volleyball court is proposed within the Western Sports Hub next to or in between the two football playing fields

Parkour Elements

- Parkour is a popular sport in urban environments with participants seeking to move quickly and fluidly through an open area by negotiating obstacles by running, jumping and climbing. Obstacles that invite parkour-type exercise are proposed between the Education Hub and NEAP and at the entrance to the Eastern Sports Hub

Performance Space

- The town square as well as other areas of hard standing will be designed to accommodate various events. Associated infrastructure including electrical points and lighting will be provided

Places for Health Promoting Exercise

- A variety of outdoor spaces with either hard standing or lawn are proposed to accommodate healthy promoting outdoor exercise including yoga, t'ai-chi and exercise classes that don't require specific equipment

Additional Potential Measures

Water Sport/Paddling

- The attenuation ponds provide an opportunity for a range of water activities including paddling/canoeing. It is proposed that the northern lake is designated as a canoeing area. It could be managed by CMAT for the local adjacent schools and for the wider community. Slipway access, floating pontoons and storage could be provided close to a designated watersport centre or along the eastern boundary of the CMAT schools site



Volleyball Area



Water Sports



Outdoor Gym



Figure 3.7 Sports Provision

Foresight's Mental Capital and Wellbeing Project has drawn on state-of-the-art research from across the world to consider how to improve everyone's mental capital and mental wellbeing through life.⁶⁰

Connect...

With the people around you. With family, friends, colleagues and neighbours. At home, work, school or in your local community. Think of these as the cornerstones of your life and invest time in developing them. Building these connections will support and enrich you every day.

Be active...

Go for a walk or run. Step outside. Cycle. Play a game. Garden. Dance. Exercising makes you feel good. Most importantly, discover a physical activity you enjoy and that suits your level of mobility and fitness.

Take notice...

Be curious. Catch sight of the beautiful. Remark on the unusual. Notice the changing seasons. Savour the moment, whether you are walking to work, eating lunch or talking to friends. Be aware of the world around you and what you are feeling. Reflecting on your experiences will help you appreciate what matters to you.

Keep learning...

Try something new. Rediscover an old interest. Sign up for that course. Take on a different responsibility at work. Fix a bike. Learn to play an instrument or how to cook your favourite food. Set a challenge you will enjoy achieving. Learning new things will make you more confident as well as being fun.

Give...

Do something nice for a friend, or a stranger. Thank someone. Smile. Volunteer your time. Join a community group. Look out, as well as in. Seeing yourself, and your happiness, linked to the wider community can be incredibly rewarding and creates connections with the people around you.

Figure 3.8 5 Ways to Wellbeing

4.0 IMPLEMENTATION PLAN



“Play is a child’s first claim on the community. Play is nature’s training for life. No community can infringe that right without doing enduring harm to the minds and bodies of its citizens”

David Lloyd George⁶¹

4.0 IMPLEMENTATION PLAN

4.1 Introduction

It is proposed that a majority of the play and recreational provision will be delivered as part of site wide public realm and infrastructure capital works.

Play provision located within each of the development parcels needs to be an integral part of the site design within the Reserved Matters Applications covering architecture, landscape and public realm.

Public realm and landscape infrastructure needs to be future-proofed to enable subsequent development and installation of incidental play and healthy living measures which may be procured at a later stage or delivered through community initiatives or/and social enterprise.

The Youth and Play Strategy elements of this Strategy (described in Section 2) are a planning requirement of the Northstowe Phase 2 Section 106 legal agreement.

The Healthy Living Measures (described in Section 3) go beyond conventional planning requirements and are part of Homes England's commitment to Northstowe being a Healthy New Town. These elements will not be enforced as planning requirements unless any specific measures are covered by planning conditions or Section 106 obligations.

4.2 Desirable and Other Possible Interventions

The interventions identified by this strategy have been benchmarked against the following criteria in relation to the level of scientific evidence for health and wellbeing benefits:

Significance	Score	Definition	Importance
Substantial	5	The intervention will have a considerable impact on improving the health and wellbeing of the future residents of Northstowe	Desirable
Major	4	The intervention will have a large impact on improving the health and wellbeing of the future residents of Northstowe	Desirable
Moderate	3	The intervention will have a modest impact on improving the health and wellbeing of the future residents of Northstowe	Other Possible
Minor	2	The intervention will have a minor impact on improving the health and wellbeing of the future residents of Northstowe	Other Possible
Slight	1	The intervention will have a very small degree of impact on improving the health and wellbeing of the future residents of Northstowe	Other Possible

The scoring of the Healthy Living and Youth & Play interventions has been carried out by Catherine Max Consulting and Tim Gill from Rethinking Childhood respectively and has been sense-checked by Calum Mattocks from the Institute of Public Health at Cambridge University.

It is an assessment of the likely health benefits of individual interventions based on the strength of available scientific evidence. Interventions with a score above 3.0 are considered to be 'Desirable' and therefore are generally intended to be delivered as part of the development of Northstowe. 'Other Possible' measures are generally included as 'Additional Potential Measures' in the Strategy and could be adopted if there is sufficient appetite from the developing community or additional sources of funding are identified. The table 'Assessment of Desirable and Other Possible Interventions' is included in **Appendix A5**.

4.3 Implementation

The proposed interventions have been categorised into Capital Works and Community/Other Programme. 'Capital Works' Interventions for practical reasons will need to be designed and implemented as part of the development parcel and site wide infrastructure works. 'Community Programme' interventions are mainly classified as 'additional' measures in this Strategy and are possible interventions, implementation will be dependent upon additional funding and/ or appetite from the new community and end users.

As far as possible, proposed interventions have been plotted spatially on the strategy mapping in **Sections 2.0** and **3.0** of this document. This allows identification of elements to be delivered as part of strategic infrastructure as distinct from elements to be provided within development parcels. Where plotting has not been practicable, details on the proposed locations and frequency of interventions are found in **Appendix A5**, 'Assessment of Desirable and Other Possible Interventions'.

4.4 Phasing

Delivery of formal and informal public open space, the town park/square, allotments, community orchards and parks, NEAPs, LEAPs and SIPs will be delivered in accordance with the Site Wide Phasing Plan (Condition 8 of the Outline Planning Permission) and S106 Agreement Trigger Points. The formal town park is an early deliverable within Phase 2 and will incorporate a LEAP.

Green infrastructure will generally be delivered in two phases. The first phase of infrastructure covers elements east of the busway including greenways, a SIP and the Waterpark and will be delivered before 2020. Elements to the west will form a second phase of infrastructure works post 2020.

Specifications for LAPs shall be submitted for approval as part of a Reserved Matters Application for strategic landscaping (where part of infrastructure works) or a relevant development parcel within which dwellings are to be constructed and a LAP is to be provided. The first parcel to be developed lies to the north of the town centre bounded by Rampton Drift, Rampton Road Greenway and the Education Campus. It includes a number of LAPs and other informal play elements to be delivered alongside new homes between 2020 and 2023.

All play and recreational facilities within or adjacent to residential development should be identified to prospective residents prior to letting or sale of adjacent properties. This is to ensure that future residents will be aware of the level of increased children's activity which could be expected in the immediate neighbourhood.

4.5 Education Campus

Development of the education campus is being managed by CMAT as the secondary provider for Cambridgeshire County Council. Kier have been appointed to design and build the first phase of the new secondary school. Requirements set out in the S106 agreement stipulate that formal sports provision within the school boundaries should be made available for community use. This provision could extend to sociable open space and play space within the education campus.

4.6 Existing Sports Strategy

Formal sports provision is provided as part of the Western and Eastern Sports Hubs and school playing fields in accordance with the existing Northstowe Phase 2 Sports Strategy, May 2015.

Eastern Sports Hub

The Eastern Sports Hub will deliver essential formal sports provision for the town. This will include:

- ➡ 4 mini football pitches
- ➡ 2 junior pitches
- ➡ 1 senior football pitch
- ➡ 1 all weather pitch (synthetic artificial turfed pitch)
- ➡ 1 skate park
- ➡ 1 cricket pitch
- ➡ 4 full size courts (tennis/netball) Sports Pavilion Land

In addition, the Sports Hub will provide car parking, cycle parking and a sports pavilion.

It is proposed that the skatepark is considered part of the NEAP provision. Consequently, the NEAP identified within the play strategy could prioritise non-wheeled play.

Western Sports Hub

The western sports hub is an extension of formal sports provision provided as part of the Northstowe Phase 1 development.

This will include:

- ➡ Football pitch (adult) x 2
- ➡ Football pitch (junior) x 2

BMX Track/Pump Track

The requirement for a BMX track identified in the Sports Strategy has been interpreted as provision of a pump track in this study. A pump track is compact and could be delivered as part of a multi-use wheeled sports facility between the Education Campus and Eastern Sports Hub.

Delivery

Delivery of the Eastern Sports Hub may be most economically provided in tandem with works to the sports provision delivered as part of the Education Campus and joint management could be considered.

Sports pitches must be delivered to Sport England design guidance and should take into account requirements by sports clubs to ensure delivery of provision that meets competition-standards. The programme for delivery of sports facilities need to be compliant with S106 Trigger Points.

4.7 Rampton Drift

The existing Rampton Drift settlement will be surrounded on all sides by the new Northstowe Phase 2 development. Connectivity of circulation routes and open space will provide opportunity for positive social interaction and integration between the existing and new communities.

The existing playground area within the Rampton Drift boundary is dated in its appearance and layout but is of significant size to provide a valuable asset to existing and future residents. Land ownership by the Rampton Drift Residents Association means that maintenance and management of all open space and the play area within Rampton Drift currently falls under the responsibility of existing residents. Long term estate management options for Northstowe are being developed and dialogue with the Rampton Drift Residents Company is ongoing.

It is currently not proposed to upgrade the Rampton Drift play facility as part of the proposed development; however the possibility should be kept under review to ensure mutual benefit for all residents.



BMX / Pump Track



Skatepark



Sports Playing Fields

4.8 Temporary Use of Land

It will be 25 years before the whole of Northstowe is built out. Over this time there will be development parcels which will be available for temporary or 'meanwhile' uses. It is proposed that the following could be accommodated during the first phases of development:

- Use of excavated soil for temporary landforms/landscape art
- Temporary dirt tracks for BMX or similar
- Temporary floristic meadows
- Urban Farm
- Temporary/dog walking field
- Temporary allotments

Meanwhile uses will form an important part of the Town Centre Strategy.

4.9 Management and Maintenance of Play

Ease and costs of maintenance are rightly factors that shape design. However, if allowed to have too great an influence they can undermine the creation of attractive, successful play areas (Greater London Authority 2012)⁶². Good practice guidance is available from Play England on maintaining spaces that incorporate natural play elements and features (Davis et al 2009)⁶³. The guidance addresses concerns and misconceptions about natural play (such as the view that loose fill materials routinely lead to contamination problems) and includes sections on:

- How to create a framework to support nature play and its on-going maintenance
- Procedures that can be used to support the maintenance of play spaces
- Specific materials that often feature in nature play and information on how to maintain them

The Public Open Space of the Northstowe Phase 2 consists of approximately 53 hectares of land, constituting 35% the gross area of the Phase 2 master plan (excluding the southern access road). The effective management of these areas is paramount for the on-going success of Northstowe.

In accordance with requirements set out in the s106 legal agreements and Condition 2 of the Outline Planning Permission, a separate management and maintenance strategy will be prepared for approval by the Council.

4.10 Phase 3

It is envisaged that Homes England will be responsible for maintenance for the first 10 years after which responsibility will be transferred to another public body, e.g. town council. Other sustainable management and maintenance regimes are being considered and will form the basis of the separate submission to the Council for agreement.

The principles of this Strategy may be applied to the future Phase 3 as part of a 'whole town approach' to provision of play and facilitation of healthy living. Longer running routes may be devised and a formal annual competitive 10 km race could be introduced as part of an expanded strategy.



4-44.
Allotments



4-43.
Meadows



4-42.
Dirt Track for Bikes

This page is intentionally blank.

5.0 APPENDICES



“The most interesting place in the typical playground is the drinking fountain.”

Richard Dattner, Design for Play, 1969⁶⁴

APPENDICES

A.1 CONSULTATION AND ENGAGEMENT

Approach to Consultation and Engagement

Consultation and engagement with relevant stakeholders has been an important and integral part in the preparation of the Northstowe Healthy Living and Youth & Play Strategy.

Initial consultation on the draft engagement strategy and scope for the Healthy Living and Youth & Play Strategy took place with Homes England and SCDC in April 2017.

The project team subsequently met with the Northstowe HNT Steering Group to discuss the emerging 'Healthy Living' Agenda and to agree further consultation opportunities. The Steering Group provided valuable advice on relevant reference documents with particular relevance to the strategy as well as references to specialist advisory groups for further consultation.

The main consultation/engagement took place over a period of 8 weeks in May and June 2017. The key objective of the consultation was to provide genuine opportunities for stakeholders to contribute to and influence the strategy proposals.

A summary of feedback from the consultation process is provided below:

Longstanton & District Heritage Society

Date and Location: 23.05.2017, Longstanton private residence
Present: H. Stroud; Dean Harris, Homes England; Adrienne Soudain, CBA

The historic significance of the Northstowe Phase 2 site in general and the Paddocks Parkland area in particular were re-affirmed and highlighted through examples of particular interest such as the pill boxes, roman finds, remains of Anglo-Saxon settlement and farming methods. Further comments included:

- A heritage trail across Site could link local churches of particular significance including St. Michael's Church, All Saints Church and Rampton Church
- Opportunities for a museum showcasing local history and heritage
- Any rent taken from allotments or orchard lease could pay for upkeep of boundary/hedge features
- Orchards would require access to water too

- Any intervention within Paddocks Parkland should be limited to non-destructive construction methods
- Grazing is the preferred method to maintain the grassland areas of Paddocks Parkland

Cambridgeshire County Council Historic Environment Team

Date and Location: 23.05.2017, Cambourne

Present: Quintin Carroll, CCC; Dean Harris, Homes England; Adrienne Soudain, CBA

Key points made during the meeting:

- Allotment use, associated boundary features and infrastructure are considered too destructive and should not be proposed within local areas of ridge and furrow landscape
- Circulation routes through Paddocks Parkland to be constructed as non-destructively as possible

Cambourne Parish Council (CPC) Clerk

Date and Location: 23.05.2017, Cambourne

Present: John Vickery, CPC; Tim Gill, Rethinking Childhood

Key points made by John Vickery during the meeting:

- Best play facilities are a mixture of landscaping and equipment, and design quality is important.
- Based on experience, naturalistic play spaces do not create any more management or maintenance issues than conventional play facilities.
- Early construction of some play facilities within Cambourne - and in particular the MUGA - was valuable in supporting families moving to the development, in creating places for parents to meet, and in providing facilities that could be a focus for engaging with young people.
- Conventional dog-proof fencing has not eliminated the presence of dogs in play spaces (as could be seen from damage to a button seat in one fenced area). Unfenced play areas are preferred: "we want the areas to feel open, not like a prison."
- Where surfacing was needed, grass matting was a more effective solution than wet-pour as it was cheaper, more attractive and easier to maintain.

Meeting with Members of SCDC, PSCS and other Stakeholder Groups

Purpose of Meeting: For CBA to provide an update on progress and to invite comments and suggestions from stakeholders. For T.Gill to provide some insight into 'a balanced approach to risk in play' and to get SCDC agreement to this approach in principle.

Date and place of Meeting: 23.05.2017, SCDC Cambourne Office
Present: Iain Green, CCC Public Health; Gemma Baron, SCDC Planning; Christian Swarbrick, VoiceAbility; Bill Jones, VoiceAbility; Nutan Patel, SCDC Community Development Worker; Kirstin Donaldson, SCDC Community Services (Sport and Play); Rebecca Gilbertson, Living Sport Relationship Manager; Clare Gibbons, SCDC Northstowe Healthy New Town Lead; Tim Gill, Rethinking Childhood; Paul Mumford, SCDC Planning (part); James Stone, SCDC Planning (part - very end); Adrienne Soudain, CBA

Key points made during the meeting:

LAP

- The principle of integrating LAP in homezone-style tertiary streets was welcomed.
- Concerns were raised about adoption of homezone-style roads by CCC and agreements will need to be sought.
- Rebecca Gilbertson made a point about accessibility and inclusive design relating to local play provision in homezone-style road environments/doorstep play within the street environment.
- Paul Mumford reported possible concerns regarding the future management and maintenance of small LAPs within the streetscape.
- Paul Mumford reported pooling of LAP areas within the Linden Homes plot of Northstowe Phase 1. This resulted in some properties not being covered within the 100m access zone stipulated by the SCDC Open Space SPD, something SCDC was willing to accept.

Cost

- Kristin Donaldson raised concern about the potential cost of some of the more innovative precedent interventions. It was suggested that the strategy should give indicative costs for any such proposed elements
- Concern was also raised about the maintenance costs of fruiting trees, and that this might be greater if these were dispersed rather than in a single location.

Meeting the Needs of People on the Autistic Spectrum

- Chris Swarbrick and Bill Jones raised the need for areas with reduced stimulation to cater for people on the autistic spectrum. With regard to locating these areas in the public realm, it was felt that these would be best located next to, i.e. integrated into general play areas rather than completely separate.

General

- Evidence should be provided on the popularity/usefulness of any intervention proposed.

LEAP/NEAP provision

- It was clarified that the planning guidance allows for a skatepark space to contribute to NEAP requirements. In general, where there are good arguments for variation from SCDC guidance on play, compliance with guidance these will be considered on their merits.

Older people

- Kirstin offered to share information about innovative outdoor gym provision
- The following advice was offered to terms of creating a dementia-friendly public realm:
 - > Do not make all streets look the same
 - > There may be potential for assistive technologies to be located in streets
 - > Marker buildings and distinctive street furniture can help with orientation

Play Provision

- TG presented his presentation on taking a balanced approach to risk in play
- There was general agreement by all that the principles of this approach were acceptable to the council and that this tied-in well with proposals under way for Northstowe Phase 1
- TG reported on his discussions with John Vickery (Cambourne Parish Clerk) earlier in the day

Dogs and Boundaries

- Rebecca Gilbertson raised the need for accommodating people and children with a fear of dogs.
- TG reported experience by John Vickery that problems with dogs were experienced irrespective of play areas with boundaries or without boundaries
- TG suggested that, while no boundary (including dog-proof

fencing) gives a perfect design solution, a clear boundary definition could various kinds of boundary definition can help to manage anti-social behaviour of dog owners

- It was suggested that a balanced approach where some play provision could include stronger boundary definition/ secure areas, while others would be more open could provide a suitable solution across the Northstowe site as a whole.
- It was suggested that there should be some provision within the Northstowe site where dogs could be allowed to run free. Consideration should be made to allow dogs to access certain ponds (or part of) within the Water Park, while other ponds would be restricted to dogs on leads only.

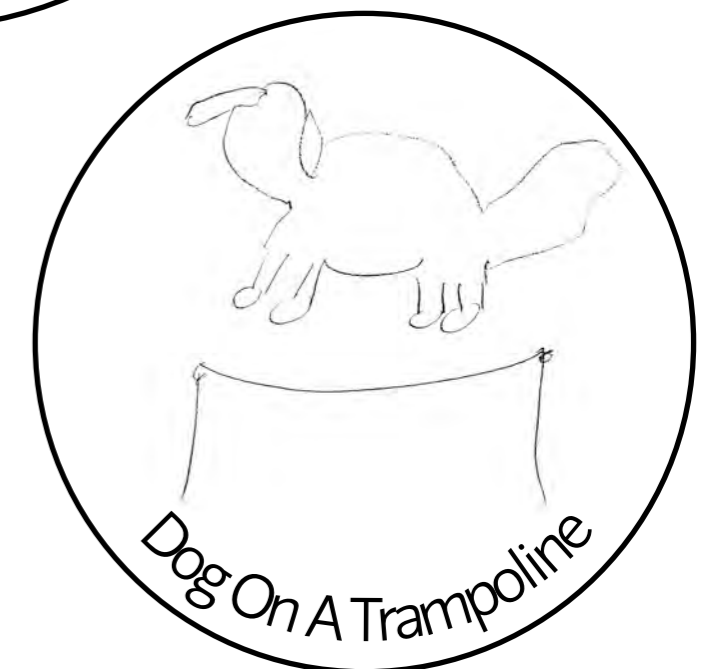
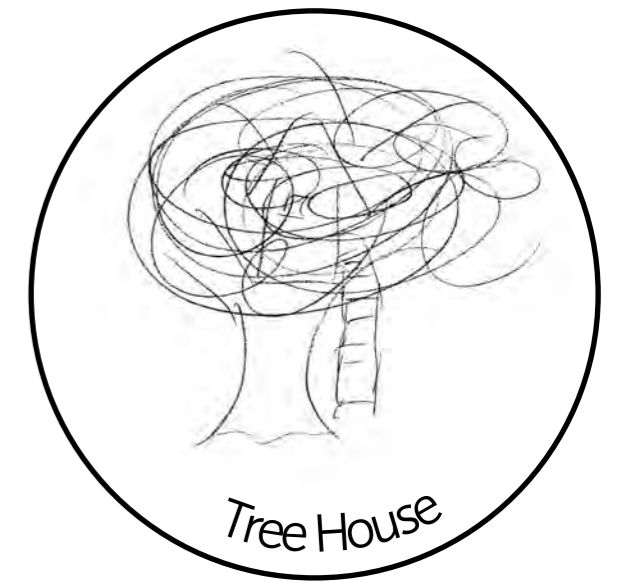
Meeting with Longstanton Youth Council

Purpose: For CBA to provide an update on progress to date and to invite comments and suggestions from stakeholders

Date and place of Meeting: 23.05.2017, The Village Institute, Longstanton

Key points made during the meeting:

- Asked about their routes to school and how this could be improved, the children were keen on fun, unusual and 'weird' things along the way to catch their attention and maintain their interest.
- Seasonal variety, nice things to look at and temporary items were highlighted as positive.
- When asked about their interest in trim trails and adventure trails, the teenagers stated that they were very familiar with off the shelf items often found in schools grounds and expressed their preference for adventurous items that had bespoke and unusual elements to make them more interesting and distinct.
- Play ideas included: Tarzan-style rope swing over ditches, zip-wire into water.
- Asked about ideas for youth shelters, ideas included a space enclosed by trees, an area that feels intimate and out of site yet safe and with a possible vantage point over the surrounding area. Preference was expressed about a variable space that would suit people with different priorities.
- Asked about wheeled sports provision including skate parks, the general response was that this group of teenagers would be less likely to use a skatepark as they thought they weren't good at skateboarding. One teenager mentioned that the ramps could be used for running/sliding up and down which lead to a discussion on par elements which some thought could be fun.



Members of the Longstanton Youth Council were asked to design little plaques showing items which they thought would be funny to other children and teenagers, represented something close to their heart or something unique to the local area. These plaques could be distributed across site and used for treasure hunts by children across town. Please refer to the attached selection of images. The idea could be developed further and could be informed by artists working with school children on similar projects. Plaques would have a relief to allow rubbings to be made and could include braille font.

- ➔ There was also a conversation about trampolines (the local play area includes one). This was valued, but there was an appetite for something 'bigger and better'.

Northstowe Community Working Group

Date and place of Meeting: 28.06.2017, Pathfinder Primary School, Northstowe

Present: Various members of the Community Working Group, including Gemma Barron, SCDC.

Key points made during the meeting:

- ➔ Members were keen for play provision to be similarly 'natural' and non-prescriptive as emerging play provision proposed for Northstowe Phase 1 and presented by Dick Longdin at the meeting
- ➔ Members were keen for local heritage to inform the layout and design within the public realm
- ➔ Good pedestrian and cycle links between Northstowe Phase 2 and surrounding villages were desired

In addition to the consultation events described above, a number of organisations were approached to provide specialist input into the emerging strategy. The recommendations were considered in the context of the Northstowe development and as far as they were applicable have been incorporated into the strategy proposals. Groups and organisations consulted were:

- ➔ Northstowe Community Forum
- ➔ CMAT
- ➔ Rampton Drift Residents Association
- ➔ Dick Longdin, Landscape Architect for Northstowe Phase
- ➔ Northstowe Phase 2 primary road infrastructure and Water Park consultants (Arcadis)
- ➔ Homes England appointed project ecologist (Arup)
- ➔ Homes England appointed cost consultant (F+G)
- ➔ Alzheimer's Society, Dementia Friendly Communities Coordinator (Cambridgeshire)
- ➔ Voiceability
- ➔ Living Sport

ADDITIONAL EVIDENCE BASE FOR MEASURES TO INCREASE PHYSICAL ACTIVITY

Added Benefits of Active Travel versus Recreational Activity

There is evidence about the additional benefits of cycling as active travel versus recreational cycling. For example, analysis of data from the Active People Survey shows that people who cycle for travel rather than simply recreational purposes are four times as likely to meet physical activity guidelines as those who do not. Ref: Stewart G, Anokye NK, & Pokhrel S (2015) Quantifying the contribution of utility cycling to population levels of physical activity: an analysis of the Active People Survey. *Journal of Public Health* pp. 1–9 | doi:10.1093/pubmed/fdv182.

Mental Health and Wellbeing

The health benefits of active travel are mental as well as physical, with walking and cycling associated with less stress than travel by car. Ref: Martin A, Goryakin Y, & Suhrcke M (2014) Does active commuting improve psychological wellbeing? Longitudinal evidence from eighteen waves of the British Household Panel. *Preventive Medicine*, 69: 296-303. 35.

Safety

Safety is, of course, a consideration; and perceptions of this affect people's choices. It is, therefore, important to ensure that the design of routes for active travel are - and are perceived to be - safe, especially for children. Ref: Ogilvie D, Foster CE, Rothnie H, Cavill N, Hamilton V, Fitzsimons CF, et al. (2007) Interventions to promote walking: A systematic review. *British Medical Journal*, 334(7605), 1204-1213, cited in *Everybody Active, Every day* (PHE, October 2014).

Design for Active Travel

There is growing evidence regarding the specific contribution of urban and neighbourhood design to enabling people to engage in active travel: 'Physical characteristics of neighbourhoods identified as having a positive impact on health, wellbeing, physical activity and walkability are: choice and diversity; well-kept environments; affordable and efficient public transport; safe and sociable play areas; the presence of green space; well-lit and pedestrian-friendly footpaths; and street patterns that provide opportunities for informal contact among residents.' Ref: *The built environment and health: an evidence review*, Glasgow Centre for Population Health, Briefing paper 11, Concepts Series, November 2013.

Certain urban forms are associated with between 25% and 100% greater likelihood of walking. People have been found to walk more in places with mixed land use, higher population densities and highly connected street layouts. Ref: Sinnett, D et al. (2012). *Creating built environments that promote walking and health: A review of international evidence*. *Journal of Planning and Architecture* 2012: 38.

For a wide-ranging overview of recent evidence and good practice for creating the optimum conditions for active travel, see *Working Together to Promote Active Travel: A Briefing for Local Authorities*, PHE 2016.

A.3 ADDITIONAL EVIDENCE BASE FOR MEASURES TO PROVIDE CONTACT WITH NATURE

Economic Case/Averting Health Costs

Natural England estimates that £2.1 billion would be saved annually through averted health costs if everyone in England had equal 'good perceived and/or actual access to green space'. Ref: [Natural England: Cost Estimate of the Expanded Walking the Way to Health Initiative, 2009](#)

The small number of studies to have estimated economic values associated with mental health 'green' interventions have typically shown them to be cost effective and to result in savings to society.

The Ecominds4 programme (nature based health interventions for mental health) was estimated to result in savings (through reduced NHS costs, benefits reductions and increased tax contributions) of around £7,082 per participant. It was estimated the programme would result in savings of £1.46m for 246 people who had found full-time work following participation.' Refer to: Natural England, Access to Evidence Information Note EIN018.

Inequalities

Health inequalities related to income deprivation in all-cause mortality and mortality from circulatory diseases are lowest in populations living in the greenest areas. Refer to: Mitchell and Popham. 2008. Doi:10.1016/S0140-6736(08)61689-X.

Socioeconomic inequality in mental well-being has been shown to be 40% narrower among those who report good access to natural environments or recreational areas, compared with those with poorer access. Refer to: Mitchell et al. 2015. Doi:10.1016/j.amepre.2015.01.017.

Older People and Mental Health

In older people, greener living environments are associated with reduced likelihood of depression and anxiety. Refer to: Wu et al. 2015. Doi: 10.1136/bmjopen-2015-007936.

Mental Health General

'Most studies show spending time in or being active in natural environments is associated with positive outcomes for attention, anger, fatigue and sadness [1, 2], higher levels of positive affect and lower levels of negative affect (mood/emotion) [3] and physiological stress [4]. There is generally positive evidence relating to the impacts of activities in natural environments on children's mental health and their cognitive, emotional and behavioural functioning.' Ref: Natural England Access to Evidence Information Note EIN018.

Regular exercise in the natural environment may cut the risk of suffering from poor mental health by half. The odds of poor mental health were lowest for those who made regular use of woods or forests for physical activity. Refer to: Mitchell. 2013 Doi: 10.1016/j.socscimed.2012.04.012.

Physical Activity

'The evidence suggests that physical activity in natural environments is more beneficial to health than that undertaken in other environments and that people enjoy it.' Ref: Natural England Access to Evidence Information Note EIN019 -links between natural environments and physical activity: evidence briefing.

Children and Physical Activity

Natural environments such as woodlands, gardens, parks, grassland and farmland, are supportive of children's vigorous physical activity. Ref: Coombes et al. 2013. 10.1016/j.healthplace.2012.11.008.

Gardens and Gardening

'The mental health benefits of gardening are broad and diverse. Studies have shown significant reductions in depression and anxiety, improved social functioning and wider effects, including opportunities for vocational development.' Ref: Gardens and health: implications for policy and practice, King's Fund 2016.

Environmental Volunteering

Taking part in environmental volunteering has been shown to be associated with better psychological health and quality of life, and results in a sense of achievement through contributing to the local community and protecting the natural environment, and in opportunities for enhanced social contact and skills acquisition. Ref: Lovell et al. 2015. doi:10.1186/s12889-015-2214-3

Sense of Place

"Attachment and meaning emerge from a variety of experiences and situations, and are often related to parks, green spaces, and natural areas." Ref: [Green cities: good health, University of Washington](#) [Green Cities: Place Attachment and Meaning](#)

'Recent research has shown that parks and gardens have considerable heritage value for people, suggesting that their appreciation extends beyond obvious aesthetic and/or recreational values. Historically created to replicate the qualities of nature and enhance urban life, these open spaces form essential environmental and cultural assets in our cities. They provide areas for recreation, leisure, and social activity; contribute to our health, local economies and wellbeing; offer space for nature to flourish; and enhance the environmental resilience of the built environment.' Ref: Taking account of heritage values of urban parks and gardens: Living With Environmental Change Policy and Practice Notes Note No.36 September 2016.

ADDITIONAL EVIDENCE BASE FOR MEASURES TO PROMOTE POSITIVE SOCIAL INTERACTION

'Perceived neighbourhood walkability has been associated with neighbour cohesion. In Galway, Ireland, a 1-unit increase in perceived neighbourhood walkability score was linked with an increase of 1.28 (95% confidence level: 1.14-1.44) in the odds that a resident knows his or her neighbours.' Ref: Social capital and the built environment: the importance of walkable neighbourhoods, Suzanne B. Cashman and Joseph Stenger: 'Healthy Communities: A natural ally for community-oriented primary care', American Journal of Public Health, 93 (9), 2003

An ESRC evidence briefing Mental health and social relationships (May 2013) draws important distinctions between the kinds of social interaction which is beneficial to different groups. For example, regular contact with a large family network doesn't necessarily lead to a higher level of wellbeing for women as these networks can place more obligations and burdens on them. Women's friendship networks were found to be more important, which underlines the need to provide practical and appealing opportunities for these to flourish. While volunteering has social benefits, the health benefits are most clearly found among older people beyond working age.

Green spaces have been found to stimulate more social activity: 83% more individuals engaged in social activity in green spaces as opposed to sparsely vegetated or concreted ones. Ref: Sullivan, W. C., Kuo, F. E. and DePooter, S. F. (2004). The fruit of urban nature: vital neighbourhood spaces. *Environment and Behavior* 36 (5), 678–700.

Well-designed park provision can also promote interaction which is inclusive of different ages and groups. Ravenscroft and Markwell (2000) investigated the relationship between park provision in Reading, UK and social inclusion among urban youths. They found that parks are more accessible to youths from ethnic minorities than other types of leisure facility. Ref: Ravenscroft, N. and Markwell, S. (2000). Ethnicity and the integration and exclusion of young people through urban park recreation provision. *Managing Leisure* 5, 135–150.

A.5 ASSESSMENT OF DESIRABLE AND OTHER POSSIBLE INTERVENTIONS

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence* Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
2.5 Play Interventions								
2.5	1	Doorstep Play/ Streets designed to Homezone Principles		5		UNICEF (2012) The State of the World’s Children: Children in an Urban World; Forman (2017) Residential Street Design and Play.		Min. of 1 tertiary street within each development parcel. Street designed to homezone principles incorporating incidental play features, some of which may constitute as a LAP.
2.5	2	Play on the way, sequential and incidental play interventions along tertiary routes		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	Average of every 200m along tertiary routes. Low-impact play interventions at relatively frequent intervals to promote informal opportunities for play. For example, routes could include: Ramp features along existing cycle routes, diverse sensory and seasonal planting, changes in local topography etc.
2.5	3	Play on the way, sequential and incidental play intervention along car free routes		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	Average of every 50m along car free routes. Low-impact play interventions at relatively frequent intervals to promote informal opportunities for play. For example, routes could include: Ramp features along existing cycle routes, diverse sensory and seasonal planting, changes in local topography etc.
2.5	4	Destination Play Area - NEAP		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types.	1 x
2.5	5	Destination Play Area - LEAP		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types.	3 x
2.5	6	Destination Play Area - LAP		4		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is not a typical feature of play areas studied.	38 x

Assessment of Desirable and Other Possible Interventions

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence* Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
2.5	7	Destination Play Area - SIP		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is not a typical feature of play areas studied.	1 x
2.5	8	Town Park: Water Play Feature		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types.	1 x playable water feature
2.5	9	Town Park: Sculptural street furniture and seating					Lack of relevant evidence	Includes for 5 no. 'clusters' of items. Cluster of furniture; includes tables, isolated bench seats, bench seats to base of tree, chaise lounge.
2.5	10	Linear Urban Park: Contemporary interpretation of archaeological finds and vernacular landscape forms						10% of Linear Urban Park Area. Include for engravings and inlays into pavements and edge treatments.
2.5	11	Linear Urban Park: Sculptural street furniture and seating					Lack of relevant evidence	Includes for 5 no. 'clusters' of items
2.5	12	Linear Urban Park: Provision of playful paving patterns and edge treatments		3		Stanley, R. M., Ridley, K. & Dollman, J. (2012) Correlates of children's time-specific physical activity: a review of the literature. The International Journal of Behavioral Nutrition and Physical Activity, 9(1), 50.	Evidence is based on school playground marking studies.	20m ² bespoke paving patterns, playable edge treatments of changeable height
2.5	13	Linear Urban Park: Water rills		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	400m, playable water feature
2.5	14	Linear Urban Park: Combination of playable green space and hard landscape areas						Lawn areas and areas of hard paving
2.5	15	Education Campus Threshold: Raised gathering space for teenagers		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	2 no. 35m ² , raised area including street furniture allowance
2.5	16	Education Campus Threshold: Seating incorporating play elements		4		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is not a typical feature of play areas studied.	Includes for 10 no. 'clusters' of items plus play equipment
2.5	17	Education Campus Threshold: Sensory planting			2	Gill, T (2014) The Benefits of Children's Engagement with Nature: A Systematic Literature Review. Children, Youth and Environments 24(2): 10-34.	Evidence is largely implicit from wider evidence around contact with nature.	20% of planting areas

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
2.5	18	Education Campus Threshold: Playful paving patterns		3		Stanley, R. M., Ridley, K. & Dollman, J. (2012) Correlates of children's time-specific physical activity: a review of the literature. The International Journal of Behavioral Nutrition and Physical Activity, 9(1), 50.	Evidence is based on school playground marking studies.	30 m2
2.5	19	Education Campus Threshold: Shaded circulation, gathering space		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017).	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	15% of area
2.5	20	Zone between Education Campus and Eastern Sports Hub: Public convenience						incl. elsewhere
2.5	21	Zone between Education Campus and Eastern Sports Hub: Pump Track		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	incl. elsewhere
2.5	22	Zone between Education Campus and Eastern Sports Hub: Terraces for overlooking sports pitches and NEAP		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	60m length, 20m length of which to be hard landscape steps / terrace
2.5	23	Zone between Education Campus and Eastern Sports Hub: Extension of NEAP into linear space		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types.	incl. elsewhere
2.5	24	Formal Greenways: Outdoor Gym		3		WHO Regional Office for Europe (2016) Urban Green Spaces and Health: A review of evidence	Evidence cited is modest and limited.	incl. elsewhere
2.5	25	Formal Greenways: Community Garden		3		WHO Regional Office for Europe (2016) Urban Green Spaces and Health: A review of evidence	Evidence cited is from a single US study.	incl. elsewhere
2.5	26	Formal Greenways: Informal hooped ball sports		4		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is not a typical feature of play areas studied.	incl. elsewhere
2.5	27	Formal Greenways: Informal boule area						incl. elsewhere
2.5	28	Formal Greenways: Bespoke land forms					Lack of relevant evidence.	3 no. 25m ²
2.5	29	Formal Greenways: Multi-sensory planting			2	Gill, T (2014) The Benefits of Children's Engagement with Nature: A Systematic Literature Review. Children, Youth and Environments 24(2): 10-34.	Evidence is largely implicit from wider evidence around contact with nature.	5 no. 10m ²

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
2.5	30	Formal Greenways: Spaces to socialise close to nature		4		WHO Regional Office for Europe (2016) Urban Green Spaces and Health: A review of evidence		1/50m
2.5	31	Informal Greenways: Bespoke landform design					Lack of relevant evidence.	6 no. 25m ²
2.5	32	Informal Greenways: Wooden play elements		4		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is not a typical feature of play areas studied.	1/50m
2.5	33	Informal Greenways: Edible planting areas		3		WHO Regional Office for Europe (2016) Urban Green Spaces and Health: A review of evidence	Evidence cited is from a single US study.	
2.5	34	Informal Greenways: Environmental interpretation						6 no. panels and wayfinding
2.5	35	Informal Greenways: Play associated with open water channels		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	Tanking of 20% of primary swales with informal, playful crossings (stepping stones or informal bridge) every 50m
2.5	36	Village Greens/ Pocket Parks: Natural play elements, open lawn areas and seating		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types.	
2.5	37	Village Greens/ Pocket Parks: Integration of swales and rills for play		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	
2.5	38	Village Greens: Fruiting trees						
2.5	39	Western Sports Hub: Volleyball pitch						incl. elsewhere
2.5	40	Western Sports Hub: Outdoor gym		3		WHO Regional Office for Europe (2016) Urban Green Spaces and Health: A review of evidence	Evidence cited is modest and limited.	incl. elsewhere
2.5	41	Western Sports Hub: Trim trail		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types.	200m length, 10 items timber equipment
2.5	42	Rampton Drift Play Area		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types.	Refurbishment
2.5	43	Water Park: Bespoke landform for vantage points					Lack of relevant evidence.	2 no. prominent land forms including mounds to create visual interest, physical challenge and vantage points

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
2.5	44	Water Park: Access for pond dipping	Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight		2	Gill, T (2014) The Benefits of Children's Engagement with Nature: A Systematic Literature Review. Children, Youth and Environments 24(2): 10-34.	Evidence is largely implicit from wider evidence around contact with nature.	6 no. timber deck spaces, 3m2 each
2.5	45	Water park - nature trail			2	Gill, T (2014) The Benefits of Children's Engagement with Nature: A Systematic Literature Review. Children, Youth and Environments 24(2): 10-34.	Evidence is largely implicit from wider evidence around contact with nature.	6 no. interpretation signs
2.5	46	Water Park: Nature inspired artwork						6 no. pieces of artwork
2.5	47	Water Park: Area for den building		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score reflects fact that the intervention proposed is rare in play areas studied.	Green open space
2.5	48	Water Park: Canoeing facilities						incl. elsewhere
2.5	49	Water Park: Wildlife interpretation						5 no. interpretation signs
2.5	50	Water Tower: Re-use of tower as play, wildlife habitat or community feature		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Evidence does not discriminate between play area types; score assumes a play focus for the intervention.	
2.5	51	SCDC requirement for consultation on play provision					Health evaluation not appropriate: established good practice.	
2.5	52	Ongoing maintenance and management of play provision					Health evaluation not appropriate: established good practice.	
2.5	53	Replacement of play equipment after a design life of 15 years					Health evaluation not appropriate: established good practice.	

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
3.0 Healthy Living Interventions								
3.3 Measures to Increase Physical Activity								
		General Health Evidence		5		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Overall, evidence regarding active travel is high quality . Increased physical activity and mobility resulting in: reduced risk in overall population of CVD, cancer, obesity, type 2 diabetes, mental health, obesity, musculoskeletal conditions. Medium quality evidence around related approaches of encouraging use of public transport, prioritising active travel and road safety and enabling mobility for all ages and activities.	
3.3	1	Incidental social spaces		4			Access to recreational space: medium quality evidence for increased walking among adolescents.	
3.3	2	Opportunities for incidental play						incl. elsewhere
3.3	3	Public Art				APPG on Arts, Health and Wellbeing Inquiry Report (July 2017)	Evidence that public art beneficial to people with Long-term health conditions - not clear that direct relevance to active travel per se.	
3.3	4	Sculptural street furniture		5			As above: Increased infrastructure for walking and cycling -high quality evidence of benefits.	10% of street furniture
3.3	5	Clearly legible routes through pedestrian wayfinding and landmarking		5			As above: Increased infrastructure for walking and cycling -high quality evidence of benefits.	Landmark features, incorporation of wayfinding in landscape features
3.3	6	Identification of shared usage spaces		4		Good overview benefits of slow traffic speeds: www.wri.org/blog	Medium quality evidence relating to prioritising pedestrians and cyclists, traffic calming measures and public realm improvements.	Signage incl. in-ground markers
3.3	7	Shared surface spaces/ homezones		3		www.sheffield.gov.uk/home-zones	Recent evidence hard to find but potentially wide-ranging including reduced 'rat running'.	incl. elsewhere

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
3.3	8	Audio visual aids at pedestrian crossings		5			As above: Increased infrastructure for walking and cycling -high quality evidence of benefits.	To 25nr crossings
3.3	9	Intelligent lighting to optimise use of informal routes after dark		5				1710m
3.3	10	Secure and dry bicycle storage incl. helmets		5				
3.3	11	Secure and dry scooter and skateboard storage incl. helmets		5				1 no. per school
Measures to Increase Physical Activity - Other Measures								
3.3	12	Car free initiatives		5			As above: Increased infrastructure for walking and cycling -high quality evidence of benefits. As above: Encouraging use of public transport - high quality evidence re increased physical activity among general population; medium for mobility and participation among older adults.	
3.3	13	Vision Zero Policy						
3.3	14	Campaigns - Walk to Work Week						
3.3	15	Street Fairs & Markets						
3.3	16	E-bike charging points		5			As above: Increased infrastructure for walking and cycling -high quality evidence of benefits.	2 no.
3.3	17	Bike share scheme		5				

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit	Comments	Frequency/Number and Specification
			Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight			Hyperlink		
Routes								
3.3	1	Ecological trail						incl. elsewhere
3.3	2	Art trail						
3.3	3	Town centre and Town Square/Park loop		4			Participation in physical activity in outdoor setting. Medium quality evidence for increased physical activity with improved mental health outcomes.	1850m, 1km respectively
3.3	4	Wider town loop		4		5km		
3.3	5	Bridleway		4				
3.3	6	Heritage trail		3		APPG on Arts, Health and Wellbeing Inquiry Report	Taking Part data suggests that people who visit heritage sites are happier than those who do not. ³³³ In a similar vein, analysis of data from the Understanding Society survey has shown that visiting heritage sites – particularly historic towns and buildings - increases life satisfaction.	
3.3	7	Pump track/skateboarding/scootering/rollerblading route		4		www.gov.uk/government/spatial-planning-for-health-evidence-review	Participation in physical activity in outdoor setting. Medium quality evidence for increased physical activity with improved mental health outcomes.	incl. elsewhere
3.3	8	Orientation/Vantage points		5			As above: Increased infrastructure for walking and cycling -high quality evidence of benefits.	incl. elsewhere
3.3	9	Jogging/running routes (different lengths)		4		www.gov.uk/government/spatial-planning-for-health-evidence-review	Participation in physical activity in outdoor setting. Medium quality evidence for increased physical activity with improved mental health outcomes.	19.35km
3.3	10	Exercise station		4				1 every 300m (17 nr)

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit	Comments	Frequency/Number and Specification
			Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight			Hyperlink		
3.4 Contact with Nature								
		General Health Evidence		4		www.gov.uk/government/spatial-planning-for-health-evidence-review www.local.gov.uk/health-all-policies-manual-local-government	Overall, the evidence for health benefits regarding contact with natural environments ranges from low to medium impact on increasing activity, active travel, mobility, social participation. However, contact with nature makes one of the highest contribution to reducing health inequalities. Benefits include: reduced risk CVD type 2 diabetes, mental health problems, musculoskeletal conditions, some cancers and specific improvements on these measures of physical health and mental wellbeing outcomes for older adults.	
3.4	1	Multi-sensory gardens						3 x 100m ²
3.4	2	Sensory trail with interactive audio features						25m
3.4	3	Sensory (barefoot trail)		5				25m
3.4	4	Interpretation signage and seating						incl. elsewhere
3.4	5	Decking/platforms on water's edge (Water Park)						3 no. 3m x 2m
3.4	6	Bridges/stepping stones over swales/ rills						
3.4	7	Modified swale to hold water						
3.4	8	Simple water features combined with water provision to community orchards and allotments						
3.4	9	Water features to provide audible experience						3 no.
3.4	10	Plant selection for sensory experience						
3.4	11	Sensory experiences in pocket parks and small open spaces						Allow for green walls to flank gable walls, bird nesting boxes, sensory planting
3.4	12	Green spaces for positive social interaction		5			Increased infrastructure for walking and cycling -high quality evidence of benefits. Aesthetic park improvements -medium quality evidence regarding increase in first-time park users, physical activity general population and in children and older adults.	

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit	Comments	Frequency/Number and Specification
			Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight			<p style="text-align: center;">Hyperlink</p>		
3.5 Measures to Promote Positive Social Interaction								
		General Health Evidence		4		Spatial Planning for Health: An evidence resource for planning and designing healthier places (2017) Interventions for loneliness and social isolation (2014) Uni of York Loneliness - evidence of the effectiveness of interventions - Centre for Policy on Ageing Rapid Review (2014) Scie Research Briefing 39: Preventing loneliness and isolation (2011) APPG on Arts, Health and Wellbeing Inquiry Report (2017)	<p>Compact neighbourhood design: Medium quality evidence re increased physical activity and associated physical and mental health benefits.</p> <p>Increased access to facilities and amenities: High quality evidence for increased physical activity and physical and mental health benefits</p> <p>Street connectivity: High quality evidence re increased physical activity with physical and mental health benefits</p> <p>Most evidence re loneliness points to social interventions. However, these need a supporting infrastructure which is safe, welcoming and enabling. Promoting independence of older people also relevant.</p> <p>Arts and culture - providing opportunities for positive interaction: good for mental health.</p>	
3.5	1	Events spaces						2 no.
3.5	2	Busking spaces						2 no.
3.5	3	Communal spaces within communal orchards and allotments		3		Kingsfund: Gardens and Health Implications for Policy and Practice	Evidence around gardening is largely implicit from wider evidence around contact with nature. Physical and mental health benefits.	
3.5	4	Communal gardening spaces within communal courtyards						
3.5	5	Picnicking and barbecue spaces						3 no.
3.5	6	Covered outdoor social spaces						5 no. 5 x 5m tensile canopy structures
3.5	7	Garden boundaries to facilitate privacy and social interaction						
3.5	8	Generous pedestrian friendly circulation spaces in front of school entrances						
3.5	9	Homezone-style access to residential areas						
3.5	10	Neighbourhood news/notice boards						Assumes 20nr

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
3.5	11	Informal outdoor exercise spaces	Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight	4		Spatial Planning for Health: An evidence resource for planning and designing healthier places (2017)	Participation in physical activity in outdoor setting. Medium quality evidence for increased physical activity with improved mental health outcomes.	
3.5	12	Social spaces for older teenagers						incl. elsewhere
3.5	13	Management of outdoor spaces as semi-private communal space						
3.5	14	Outdoor screen/cinema						1 no. outdoor screen within the town centre
3.5	15	Management of green spaces by voluntary group/social enterprise		4				
3.5	16	Provision of not-for profit retail space for social enterprise/s within Town Centre						
3.6 Measures to Promote a Positive Community Identity								
3.6	1	Welcome pack for all new residents						Design and distribution of 3,500 packs
3.6	2	Place naming of neighbourhoods and streets informed by local heritage and landscape context						
3.6	3	Interpretation of historic landscape and cultural heritage in new design proposals		3		APPG on Arts, Health and Wellbeing Inquiry Report		3 no. interpretation boards plus 4.5km trail with interpretation @ 200m
3.6	4	Landmark design of new town centre						
3.6	5	Distinctive design of pocket parks and areas of local townscape significance		3		Place attachment and meaning	Range of evidence linked to experience of place, especially nature, and starting from a young age. Proximity to home pertinent.	
Measures to Promote a Positive Community Identity - Additional Measures								
3.6	6	Public art programme		3				
3.6	7	Community planting programme		3				
3.6	8	Local based social enterprise						
3.6	9	Branding of signage and street furniture						

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit	Comments	Frequency/Number and Specification
			Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight			Hyperlink		
3.7		Measures to Promote Access to Healthy Food/Productive Landscapes						
		General Health Evidence		4		Spatial Planning for Health: An evidence resource for planning and designing healthier places (2017)	There is a range of medium quality evidence regarding the positive physical health outcomes associated with increased access to healthier food generally and in schools as well as through access to retail outlets selling healthier food . PHE notes caution regarding a number of specific interventions in relation to this and also to enhancing the community food infrastructure. However, see also King's Fund report on gardening specifically.	
3.7	1	Requirement for provision of fruit trees within communal and podium deck gardens						30% of trees within the affected areas
3.7	2	Min. of 300mm topsoil depth to all garden areas to enable growing of fruit and vegetables						
3.7	3	Provision of fruiting espaliers to boundaries and communal front gardens						30% of trees within the affected areas
3.7	4	Interpretation within greenways with information of foraging food including recipes						3 no. interpretation panels
3.7	5	Public realm planting design, play areas and school grounds to include planting suitable for foraging						
3.7	6	Market stall space within town centre						Installation of electrical bollards for 20 no. stalls
3.7	7	Provision of orchards		3				
3.7	8	Secure community garden within formal greenway		3				400m2, include areas for vegetable growing, outdoor learning, notice boards, water taps, seating, hard standing (and pizza oven)
3.7	9	Culinary communal herb gardens within communal courtyard areas podium decks		3				5% of communal and podium deck planting areas

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence* Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
Measures to Promote Access to Healthy Food/Productive Landscapes - Infrastructure								
3.7	10	Water taps to allotments, community gardens and orchards						23 no.
3.7	11	Notice boards						min. 1 per neighbourhood area, 8 no. in total
3.7	12	Seating						
3.7	13	Communal composting areas						5 no.
Measures to Promote Access to Healthy Food/Productive Landscapes - Additional Measures								
3.7	14	Retail floor space within town centre for locally produced food outlet		4			Medium quality evidence reported by PHE re improved healthy weight maintenance associated with access to retail outlets selling healthier food.	200m2
3.7	15	Primary, secondary and SEN schools to have allocated space for food growing and supplying produce to the school canteen		4			Medium quality evidence reported by PHE re improved healthy weight maintenance associated with access to healthier food in schools.	
3.7	16	Space for beehives on green roofs			2		The evidence for health benefits of biodiversity is said to be limited so far (via ECEHH: http://www.ecehh.org/).	20% of green roof area to be designed for bee foraging vegetation
3.7	17	Restrictions of fast food outlets near schools and leisure facilities		2			Medium quality evidence reported by PHE re improved healthy weight maintenance associated with access to retail outlets selling healthier food.	
3.7	18	WC Provision						1 no in town centre, standard provisions, female, male, disabled

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence* Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
3.8 Measures to Create a Low Pollution Environment and Minimise Adverse Effects on Climate Change								
		General Health Evidence		3		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Reducing exposure to environmental hazards: 1. Medium quality evidence regarding excessive noise, with medium positive impact on mental health in both older adults and children.	
						NICE guidance - Air pollution: outdoor air quality and health	2. Lack of good quality evidence reported regarding improved air quality, exposure to pollution and reduced impact of flooding; but health outcomes in areas of reduced risk of CVD, type 2 diabetes, stroke, mental health, musculoskeletal conditions and some cancers. Reduced exposure to particulate matter and other gaseous pollutants - high quality evidence regarding reduced COPD, healthy birth weight, reduction in risk of out of hospital cardiac arrest.	
							3. Medium quality evidence of positive health outcomes from reduced heat island effect by e.g. prioritisation of neighbourhood tree planting.	
3.8	1	Reduction of car speeds to reduce emissions incl. increasing pedestrian priority surface		3		NICE guidance - Air pollution: outdoor air quality and health	While potential impacts are substantial, the direct evidence is limited due to variables plus need to consider as part of a package of other measures notably to increase active travel.	
3.8	2	Particulate filtering planting along primary routes						
3.8	3	Hedgerow planting between pollution source and pedestrian/cycle environment						Semi-mature hedgerow to single side verge on primary routes, 2337m
3.8	4	Pollution filtering green walls incl. to all blank facades facing primary routes						5% of elevational area per land parcel
3.8	5	Light coloured high albedo rated pavement materials to most intensely used pedestrian and cycleway routes						Pavements along primary routes and education hub/school entrance
3.8	6	Planting and structures for shade						1 no. 25 x 2m
3.8	7	Provision of water features to improve microclimate/amenity						incl. elsewhere

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit	Comments	Frequency/Number and Specification
Measures to Create a Low Pollution Environment and Minimise Adverse Effects on Climate Change - Additional Measures								
3.8	8	Nitrogen dioxide fixing pavements						50% of pedestrian pavements along school thresholds
3.8	9	Installation of green roofs to all public buildings to reduce heat-island effect						Approximately 15,000m ²
3.9 Design for All/Inclusive Design								
		General Health Evidence		4		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Walkability: Medium quality evidence re reduced negative physical and mental health outcomes of measures to increase walkability in adults, plus increased mental wellbeing for older adults as a result of social engagement as well as physical activity.	
3.9	1	Socialising spaces and seating close to residential areas						
3.9	2	Social space near activity areas (school/play/recreation/town centre/shops)						
3.9	3	Provision of quiet spaces for observation						
3.9	4	Sensory gardens/allotments and communal gardens with raised planters						5% gross area of gardens and allotments to be raised
3.9	5	DDA compliant design						
3.9	6	Outdoor exercise/recreation space with specialist 'Grow Older' Richter Spielgeraete equipment						50m ² , 5 no. elements
3.9	7	High definition paving materials to aid visual impairment (GP surgery retirement home thresholds/town centre)						
3.9	8	Provision of clutter free public spaces/streetscapes						
3.9	9	Provision of enlarged and easy to use push buttons (entry doors/crossings)						
3.9	10	Provision of audio-visual aids to road crossings						6 no. crossings on primary routes (3 per route)
3.9	11	Provision of easy circulation routes for people with walking aids						
3.9	12	Provision of regular seating including provision for back and arm rests						205 of all seating to be provided with backs
3.9	13	Provision of Public toilets						incl. elsewhere
3.9	14	Provision of seating in shade						
3.9	15	Sensory stimulation through planting design						
3.9	16	Sensory stimulation through audible sculptures and play equipment (Richter Spielgeraete Graubner)						incl. elsewhere
3.9	17	Provision of enlarged writing on signage						

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence* Scoring Criteria 5: Substantial, 4: Major, 3: Moderate, 2: Minor, 1: Slight	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit Hyperlink	Comments	Frequency/Number and Specification
Additional Measures to Meet the Needs of Older People								
3.9		General Health Evidence		4		Focus on physical activity can help avoid unnecessary social care (BMJ October 2017)	Recommending measures including infrastructure to promote physical activity.	
3.9	18	Provision of outdoor chess and drafts						2 no outdoor games tables
3.9	19	Provision of boule court						1no 4-15m
3.9	20	Provision of outdoor exercise space for T'ai-chi etc.						-
3.9	21	Provision of badminton court/s						2no (external)?
3.9	22	Provision of table tennis						4no tables
3.9	23	Provision of bowls court (Flat?)						1no 40x40m
3.9	24	Provision for canoeing						Covered by item 3.10/5
Meeting the Needs of People with Mental Health Issues								
3.9		General Health Evidence		4		Spatial planning for health: an evidence resource for planning and designing healthier places (PHE June 2017)	Medium quality evidence re reduced negative physical and mental health outcomes of measures to increase walkability in adults, plus increased mental wellbeing for older adults as a result of social engagement as well as physical activity.	
3.9	25	Creating Pro-Social Places						
3.9	26	Provide space and areas of play with reduced sensory stimulation (ref autistic needs)						

Assessment of Desirable and Other Possible Interventions cont.

Strategy Ref.	Item	Intervention	Assessment of Health and Wellbeing Benefit based on available scientific evidence*	Desirable	Other Possible	References for Evidence of Health and Wellbeing Benefit	Comments	Frequency/Number and Specification
Dementia Friendly Design								
3.9		General Health Evidence		4		Dementia-friendly communities: guidance for councils (LGA July 2015) Code of practice for the recognition of dementia-friendly communities in England (June 2015)	Wayfinding, pavement and crossing design, lighting, acoustics, accessible toilets, seating all identified via work with Alzheimer's Society et al.	
3.9	27	Installation of familiar 'landmark objects within neighbourhood areas and town centre						
3.9	28	Seating located around familiar objects (dementia garden)						
3.9	29	Provision of spaces for chair-based/seated exercises						
3.9	30	Legibility of pedestrian signage including braille						
3.9	31	Avoidance of capital only font						
3.9	32	Adoption of signage legibility design code for New Town						
3.9	33	Adoption of dementia friendly design in the provision of disabled/unisex public toilets						incl. elsewhere
3.10 Measures to Promote Access to Sport								
3.10	1	Outdoor Gyms						3 no. each 250m2 with 6 items minimum, allow for safety surfacing and signage
3.10	2	Informal Hooped Ball Sports Provision						2 no.
3.10	3	Volleyball Area						1 no. 18 x 9m, allow for net, loose gravel or sand surface
3.10	4	Parkour Elements (located between Education Hub and NEAP)						1 no. course, 800m2; allow for concrete elements and metal bars
3.10	5	Water Sports (canoeing) – provision of boat storage and floating pontoons						
3.10	6	Performance Space						
3.10	7	Areas for informal outdoor exercise						

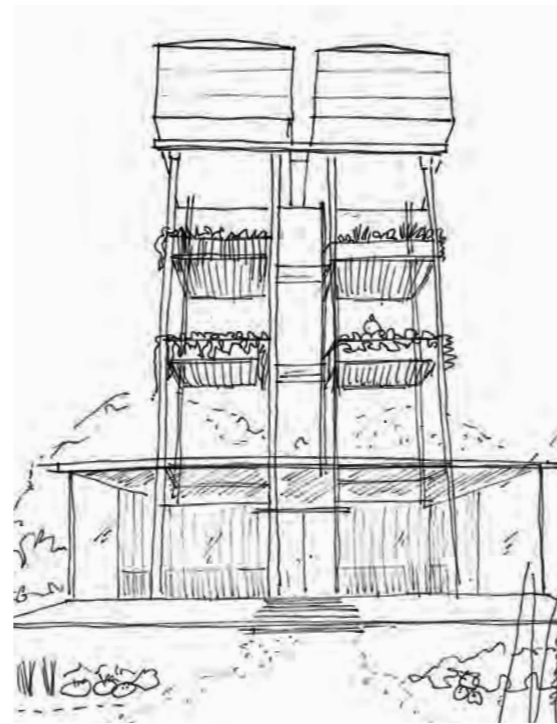
Assessment of Desirable and Other Possible Interventions cont.

A.6 WATER TOWER POTENTIAL PROPOSALS

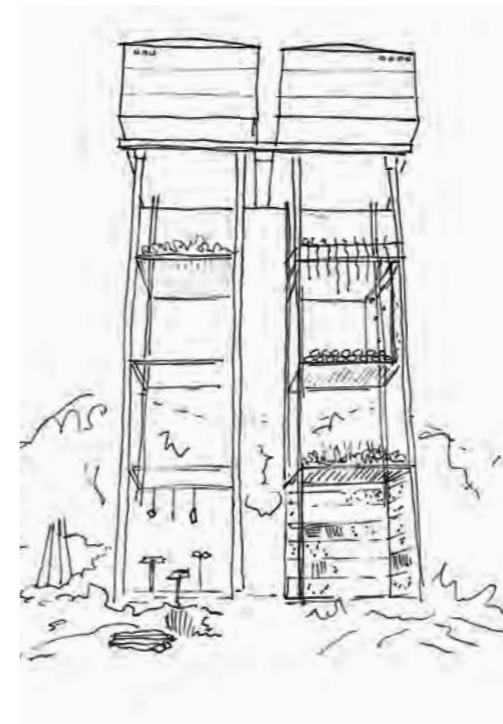
The water towers will be set within a small public open space surrounded by buildings up to 3-storey high. They are a link to the more recent history of the Site and provide a local landmark and point of reference within the development. Possible options for the re-use of the water towers include: climbing wall, projection surface for outdoor cinema, architectural illumination, partial greening and incorporation of a social space and play elements at ground level.

The water towers could provide a viewing platform above the proposed building lines. Health and safety and privacy in relation to surrounding properties would need to be resolved.

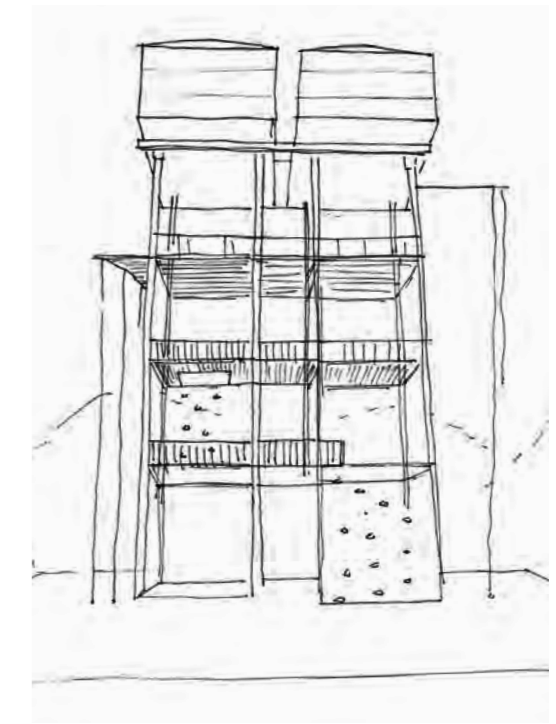
Alternatively, the water towers could be relocated to the edge of the Water Park where they could be refurbished into a bird observation tower and viewing platform.



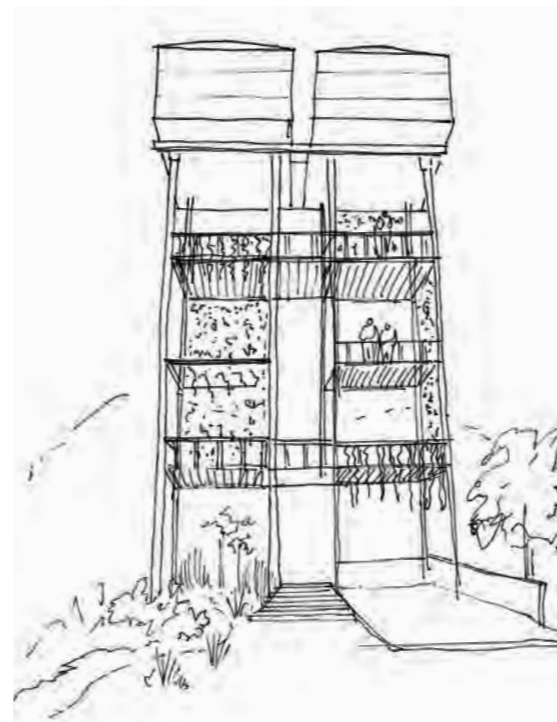
Productive / Food / Cafe



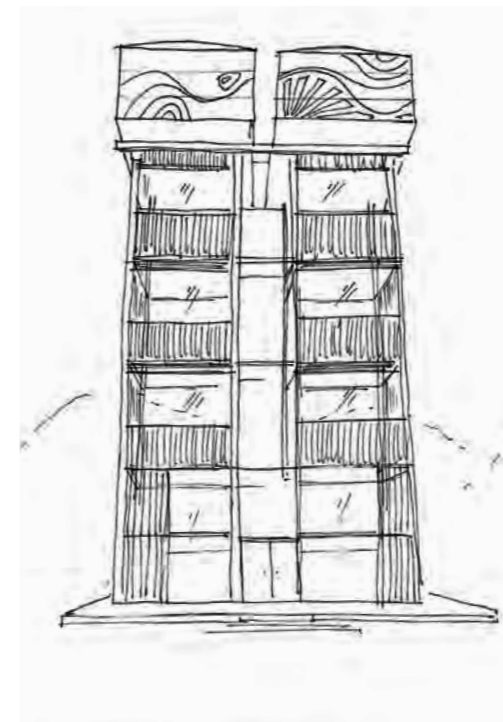
Ecological



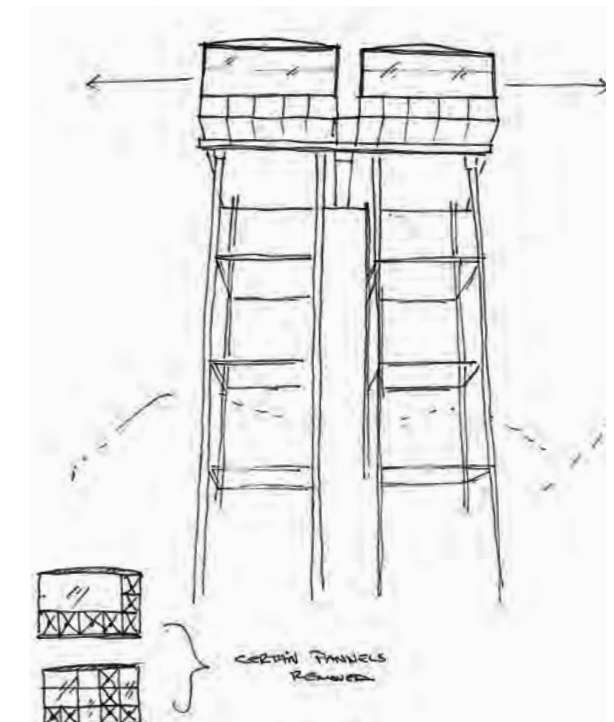
Active / Climbing



Scenic



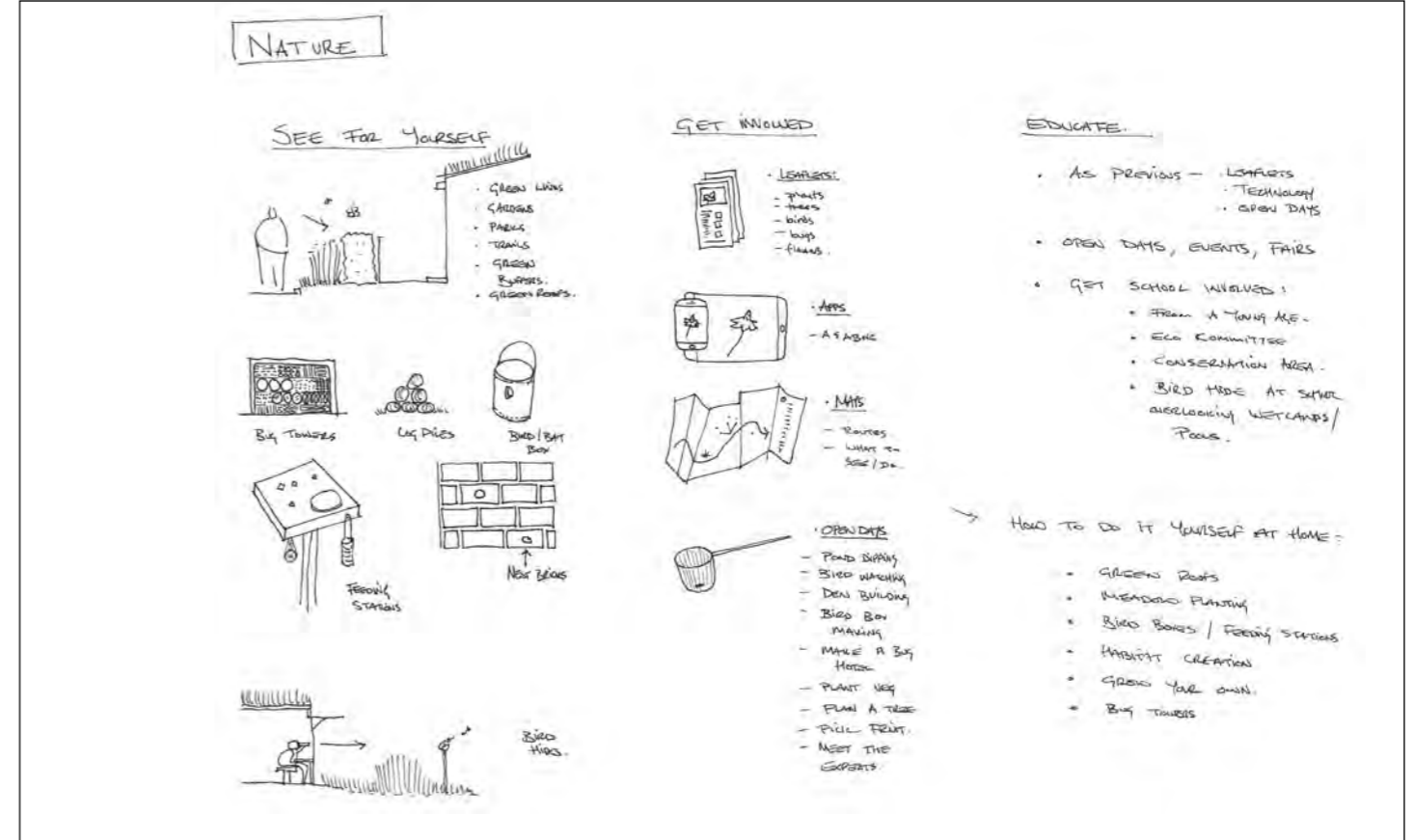
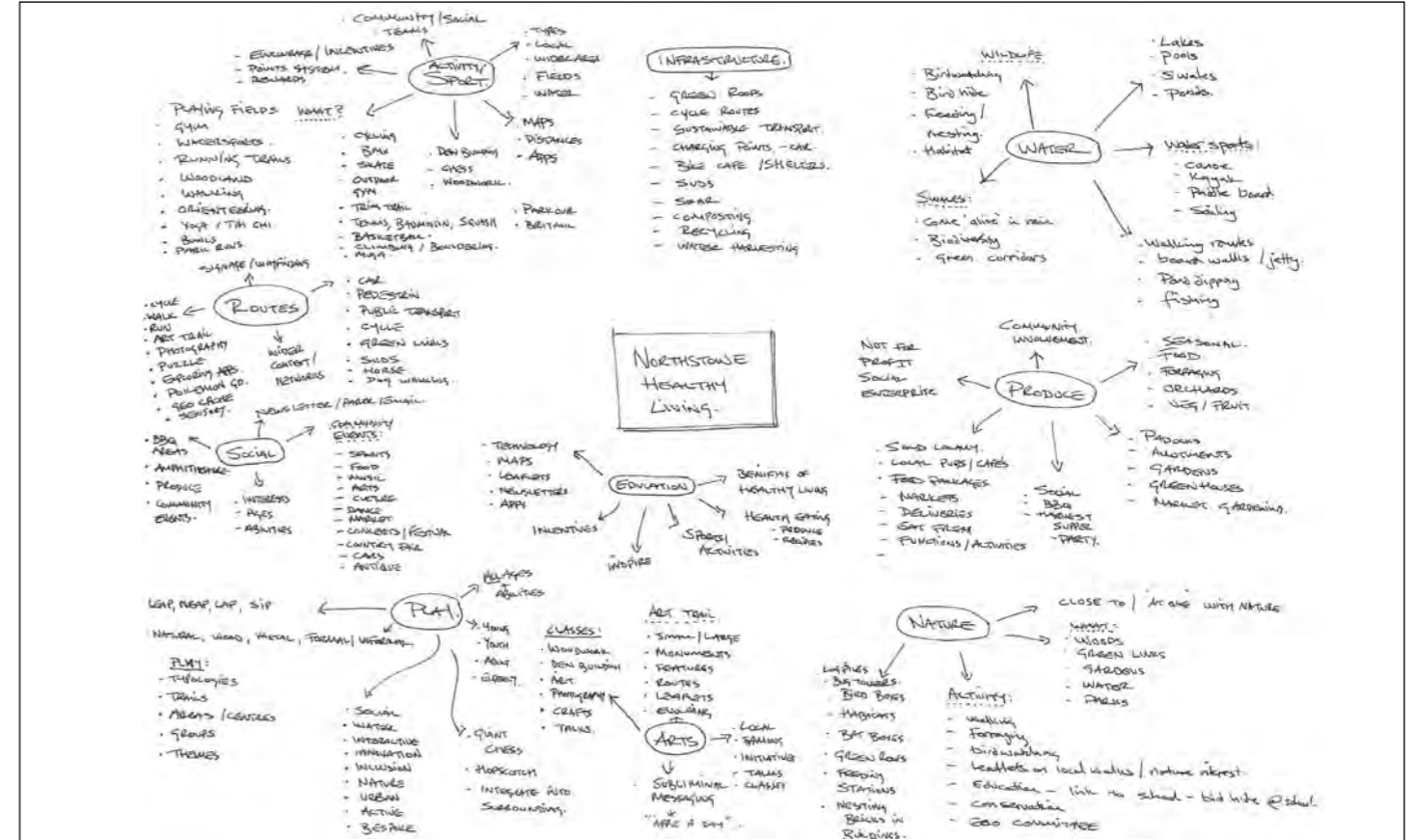
Art Installation / Studios

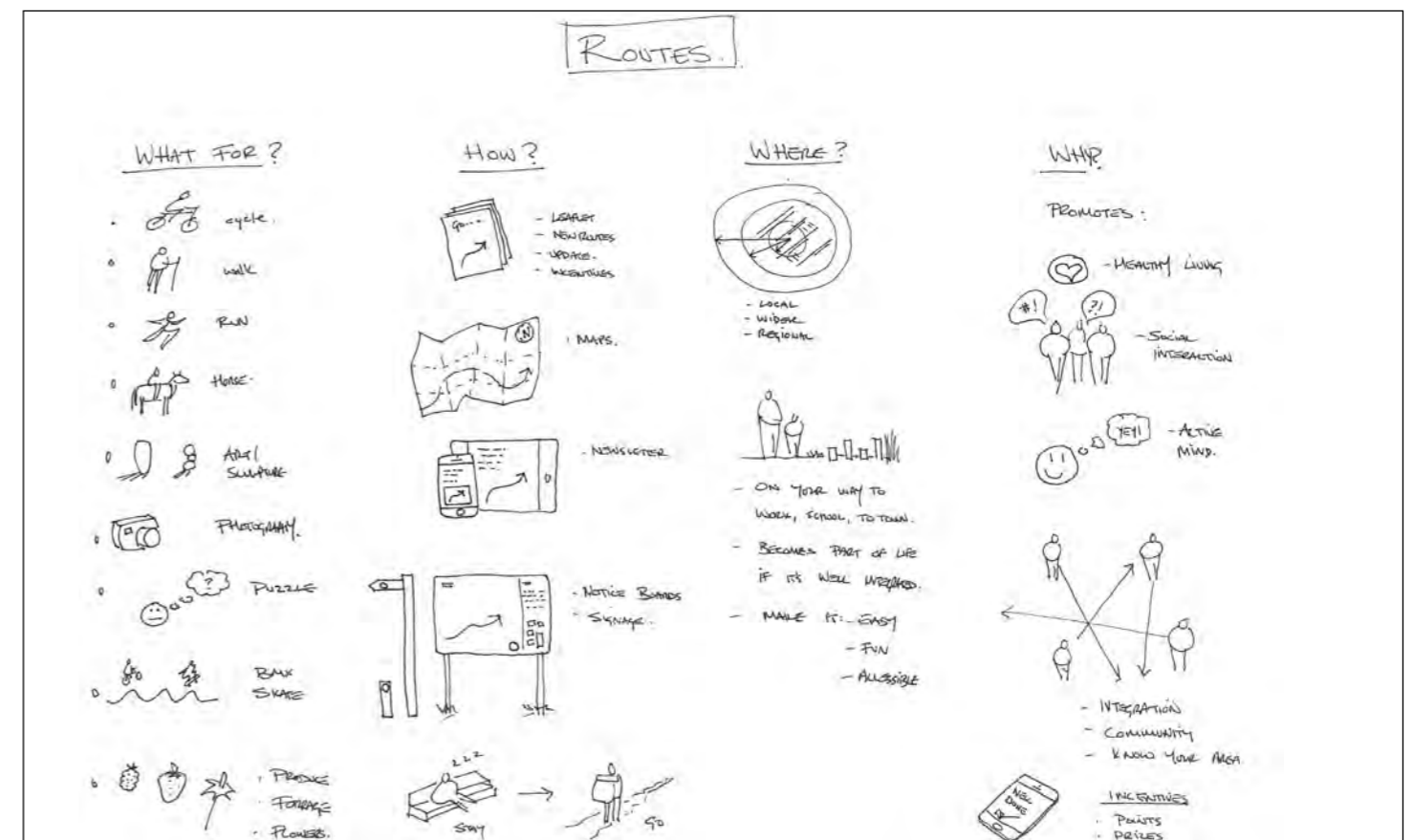
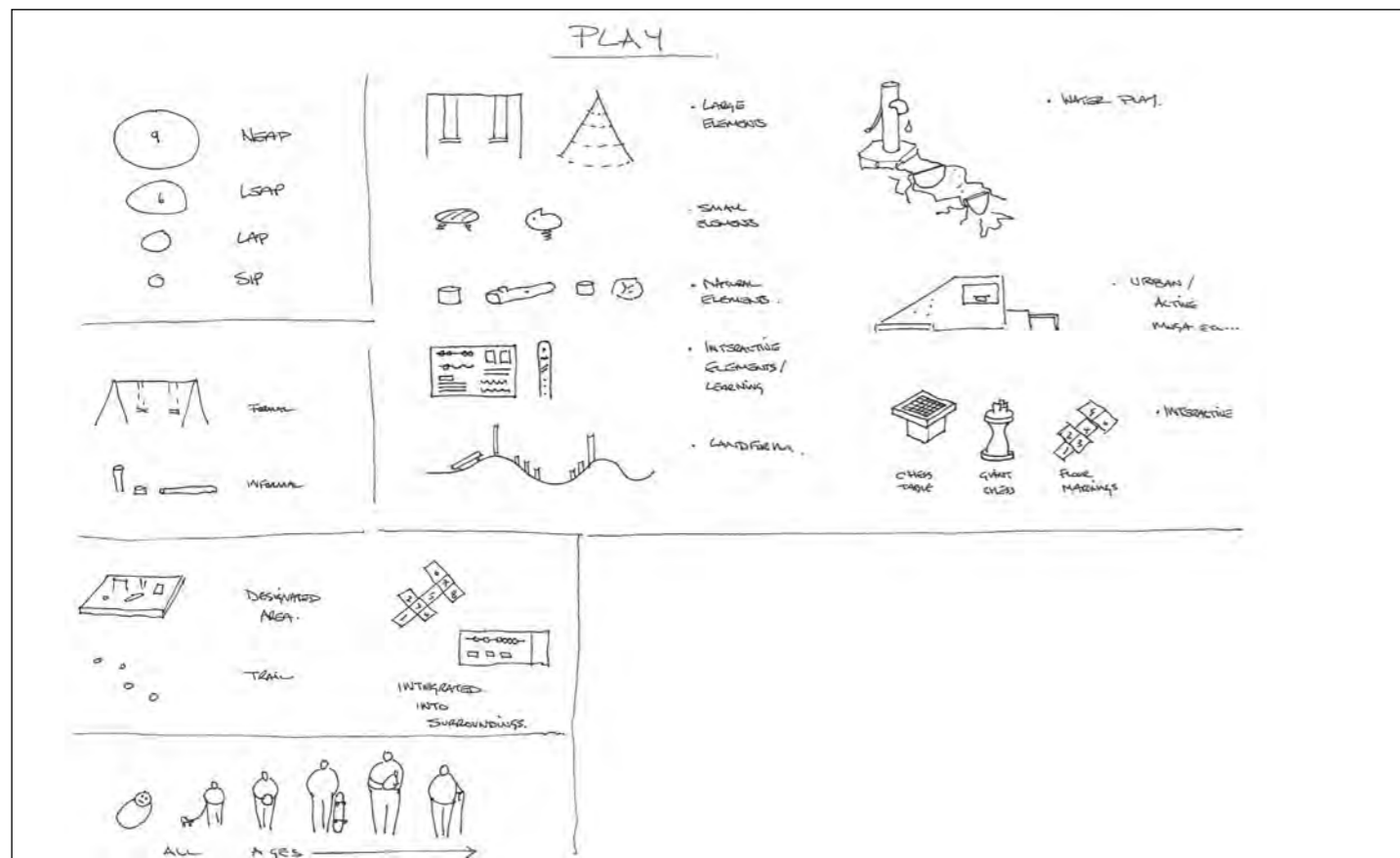
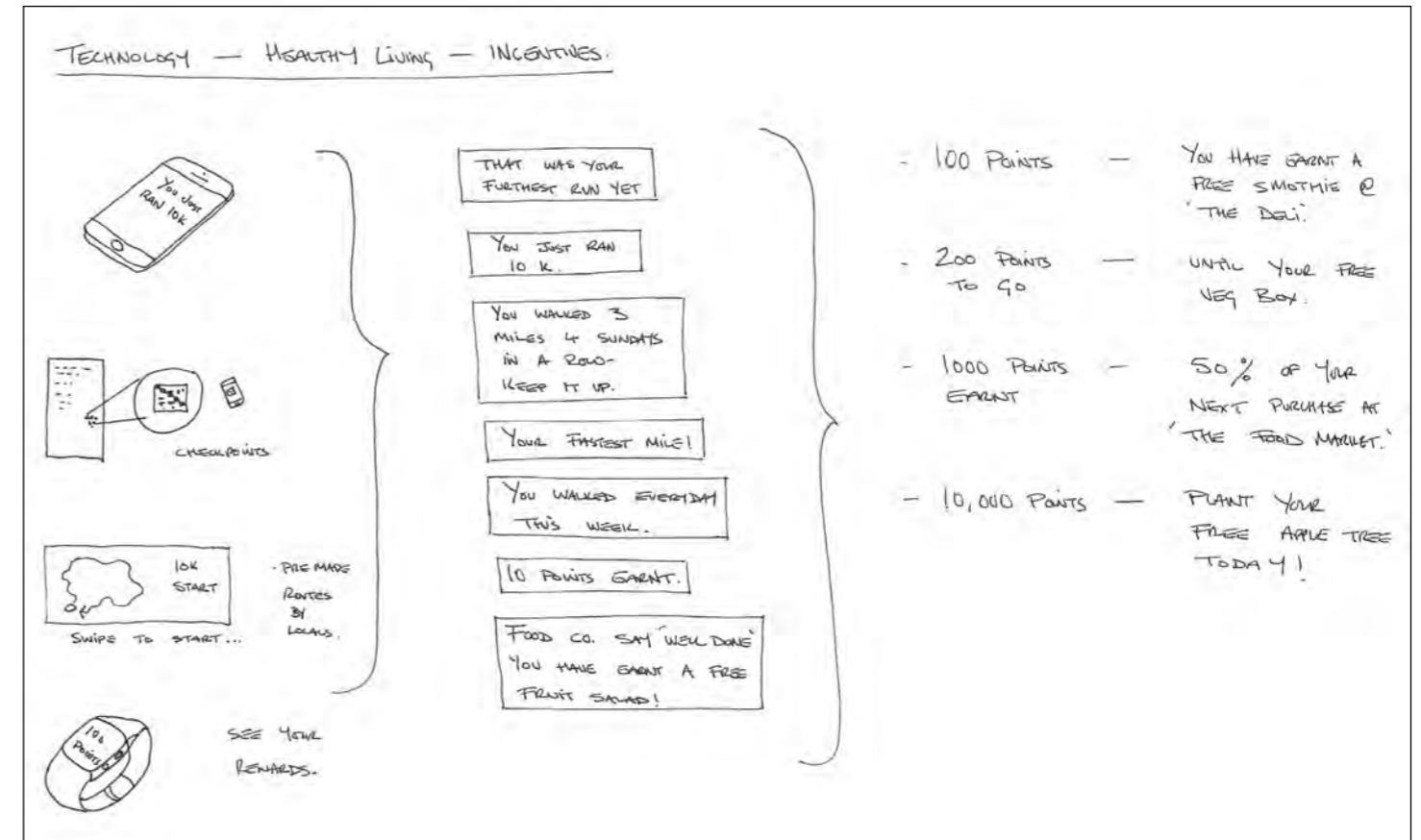
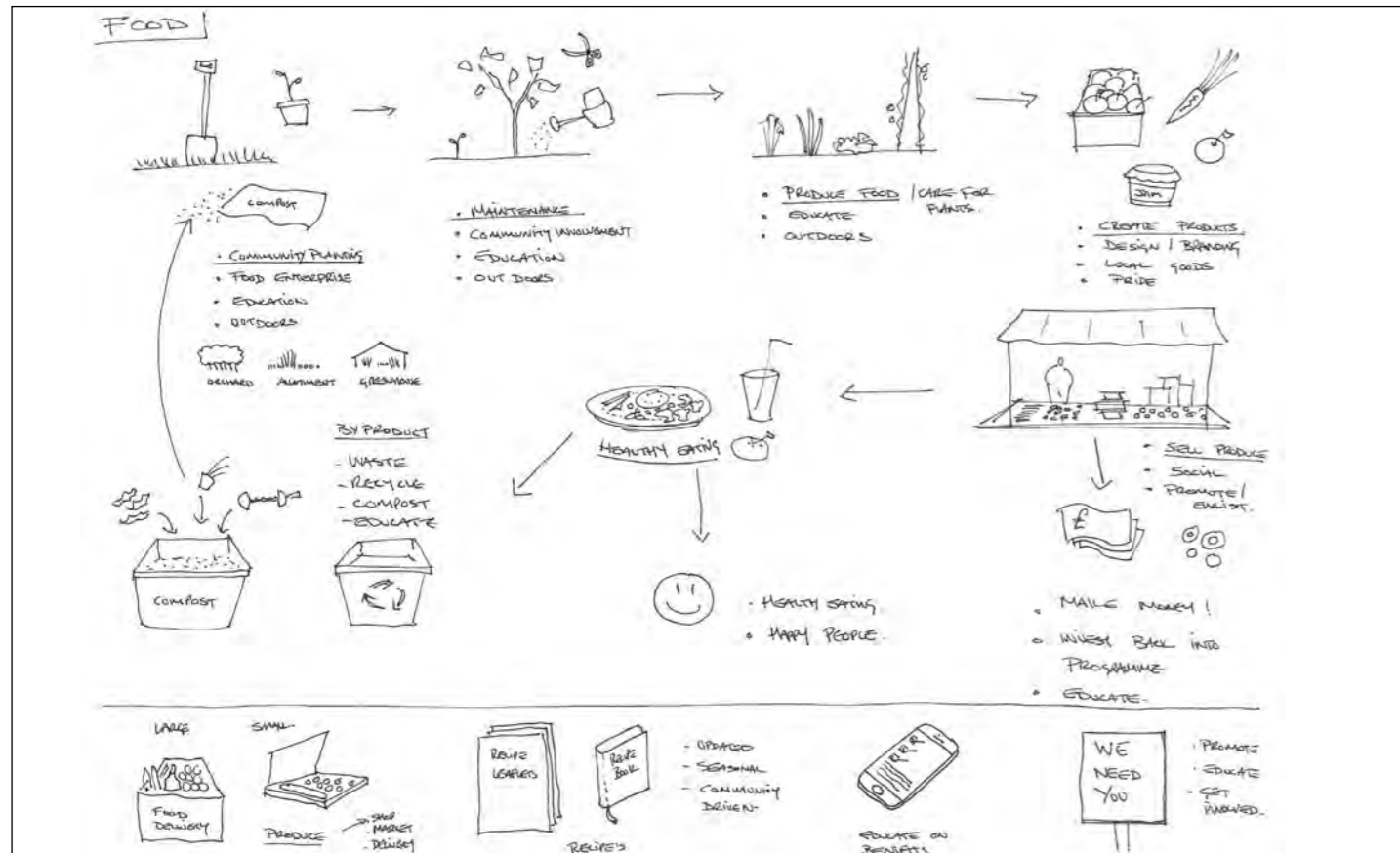


Viewpoint

A.7 DESIGN DEVELOPMENT

The following pages illustrate the creative process and design development prepared in developing the healthy living and youth and play interventions.





A.8 BIBLIOGRAPHY

References

1. Submission to NHS England. The forward view into Action - NHS Healthy Towns Programme
2. [The Joint Strategic needs Assessment JSNA 2012-2017](#)
3. [Cavill & Rutter. Obesity & the Environment: Increasing Physical Activity and Active Travel. Public Health England. 2013](#)
4. [Annual Report of the Chief Medical Officer 2012, Our Children Deserve Better: Prevention Pays. HMSO. 2012](#)
5. [Design Council 2014. Active by Design Designing places for healthy lives A short guide. 1st ed.](#)
6. [Shackell et al. 2008. Design for Play: A Guide to Creating Successful Play Spaces](#)
7. [Gill, T. 2007. No Fear: Growing up in a risk adverse society. Calouste Gulbenkian Foundation.](#)
8. [Article 9 of the 1989 United Nations: Convention on the Rights of a Child.](#)
9. [Gill, T. 2014. The Play Return: A review of the wider impact of play initiatives. Play England.](#)
10. [Hayley Jarvis. 2017. Movement Medicine for Young Minds. Brunel University London.](#)
11. [Mackett & Paskins. 2007. Children's Physical Activity: The Contribution of Playing & Walking 2007.](#)
12. [Pellegrini, D. 2009. Research & Policy on Children's Play 2009](#)
13. [Baines & Blanchard. 2011. Children's Games & Playground Activities in School and their Role in Development.](#)
14. [Blatchford at al. 2003. The social context of school playground games. British Journal of Developmental Psychology, 21\(4\), 481-505](#)
15. [Gill, T. 2014. The Benefits of Children's Engagement with Nature: A Systematic Literature Review, Children, Youth and Environments Vol. 24, No. 2.](#)
16. [Gill, T. 2011. Sowing the Seeds: Reconnecting London's children with nature. London Sustainable Development Commission.](#)
17. [Evening Standard article. 2017.](#)
18. [The Mental Health Foundation.](#)
19. [Lester & Russell. 2007. Play for a Change University of Gloucester 2007.](#)
20. [World Health Organisation Regional Office for Europe – The European Mental Health Action Plan 2013-2020.](#)
21. [Joseph Rowntree Foundation. 2006. Mixed Communities: Success & Sustainability.](#)
22. [Hall Aitken. 2013. People Affected by Environmental and Neighbour Related Antisocial Behaviour.](#)
23. [Roger Hampshire and Mark Wilkinson. Youth Shelters & Sports Systems. Thames Valley Police.](#)
24. [Play Matters for All Kids.](#)
25. [Design for Play - Play England 2008.](#)
26. [Forman,H. 2017. Residential Street Design & Play.](#)
27. [Wheway & Millward. 1997. Child's Play: Facilitating Play on Housing Estates.](#)
28. [Bornat,D. 2016. Housing Design for Community Life.](#)
29. [Shaw et al. 2015. Children's Independent Mobility.](#)
30. [Shaping Neighbourhoods: Play & Informal Recreation SPG. The London Plan 2012.](#)
31. [Fair Play – A Consultation on the Play Strategy 2008. DCMS.](#)
32. [Ball et al. 2013. Managing Risk in Play Provision. Play England.](#)
33. [Children's Play & Leisure – Promoting a Balanced Approach. Health & Safety Executive 2012.](#)
34. [Helle Nebelong. Free Play Network.](#)
35. [Open Space in new Developments. South Cambridgeshire District Council SPD 2009.](#)
36. [Beunderman et al. 2007. Seen & Heard – Reclaiming the Public Realm with Children & Young People . DEMOS.](#)
37. [The Fat Man of Europe. NHS Choices.](#)
38. [Rachel Toms.The Design Council. 2017.](#)
39. [Cities Alive: Towards a Walking World, Arup. 2016.](#)
40. [Physical Activity: Walking & Cycling, Public Health Guideline PH41. National Institute of Health and Care Excellence. 2012.](#)
41. [National Travel Survey 2013.](#)
42. [Biodiversity, Health and Wellbeing in Cornwall's Public Open Space, Card 4 – Enriching experience through green space design. University of Exeter and Cornwall Council. 2017](#)
43. [Urban green spaces and health. Copenhagen: WHO Regional Office for Europe. 2016](#)
44. [Links Between Natural Environments & Learning: Evidence Briefing, Natural England. 2016.](#)
45. [Buckminster Fuller., 1972. Playscapes.](#)
46. [Health Impacts of the Built Environment: A Review The Institute of Public Health in Ireland. 2006](#)
47. [Green Cities: Good Health, University of Washington.](#)
48. [Bailey et al. 2012. Place Attachment in Deprived Neighbourhoods. University of Glasgow.](#)
49. [Stephen Holgate. 2008. Future Programme of the Royal Commission on Environmental Pollution and Air Quality, Health & Wellbeing.](#)
50. [From Evidence into Action: Opportunities to Protect and Improve the Nation's Health. Public Health England. 2014.](#)
51. [Childhood Obesity – Brave & Bold Action \(HC465\) House of Commons Health Committee 2015-16.](#)
52. [Buck,D. 2016. Gardens & Health: Implications for Policy & Practice. The King's Fund.](#)
53. [World Health Organisation.](#)
54. [National Planning Policy Framework 2012.](#)
55. [Land Use Planning & Development Control: Planning for Air Quality. Institute of Air Quality Management/Environmental Protection UK. 2017.](#)
56. [Nature Conservation & Ecosystem Service Delivery. Joint Nature Conservation Committee. 2013.](#)
57. [Pitt, M. 2007. The Pitt Review - Learning Lessons from the 2007 Floods. UK Government. 2008.](#)
58. [Livingsport & Sense Charity. Cambridgeshire & Peterborough. 2017.](#)
59. [The Guardian article. 2014.](#)
60. [Five Ways to Wellbeing. Hertfordshire CC.](#)
61. [Every Child Has the Right to Play, Play Strategy for Children & Young People in Cardiff, Cardiff Council](#)
62. [Greater London Authority 2012](#)
63. [Lisa Davis et al, Nature play: Maintenance guide, Play England 2009](#)
64. [Richard Dattner, Design for Play, 1969. Play Scapes.](#)
65. [Mental Capital and Wellbeing: Making the most of ourselves in the 21st century \(2008\)](#)

Further Sources of Information

- > [Active Design Planning for health and wellbeing through sport and physical activity. \(2015\). 1st ed. London: Sport England.](#)
- > [Activity, exercise and the planning and design of outdoor spaces. \(2013\). 1st ed. Journal of Environmental Psychology.](#)
- > [Agile Aging Alliance \(2017\). Neighbourhoods of the Future: Better Homes for Older Adults- Improving Health, Care, Design and Technology. 1st ed. Creative Skills for Life.](#)
- > [Cities Alive, Towards a walking world. 1st ed. ARUP \(2016\).](#)
- > [Barking Riverside Healthy New Town Strategic Vision and Delivery Plan Jan 2017 – April 2018. \(2017\). 1st ed. Barking Riverside.](#)
- > [Barking Riverside Play, Sport and Recreation Strategy part 1-4 + Final Reports Prepared for : Barking Riverside Limited. \(2007\). 1st ed. Macgregor - Smith.](#)
- > [Bell SL., Lovell R., Maclean I., Curtis R., Collings-Costello N. and Wheeler BW. \(2016\) Green space, human health and biodiversity: four evidence cards to inform public open space policy making in Cornwall Council. Economic and Social Research Council Impact Acceleration Account-funded project between Cornwall Council and University of Exeter.](#)
- > [Berkeley Group \(2014\). Creating successful places A toolkit. 1st ed. \[ebook\] Berkley Group.](#)
- > [Biodiversity, Health and Wellbeing in Cornwall's Public Open Space, University of Exeter, Benedict Wheeler, April 2017](#)
- > [Blee, S. \(2013\). Public Health and Landscape Creating healthy places. 1st ed. London: Landscape Institute.](#)
- > [Bornat, D. \(2016\). Researching how residents use external Housing Design For Community Life spaces in new developments. 1st ed. University of East London, ZCD Architects.](#)
- > [CABE \(2009\). Future health Sustainable places for health and well-being. 1st ed. London: Commission for Architecture and the Built Environment.](#)
- > [Cambridgeshire County Council \(2011\). Draft Cambridgeshire Residential Travel Plan Guidance Supplementary Guidance. 1st ed. \[ebook\] Cambridgeshire: Cambridgeshire County Council.](#)
- > [Child's Play, Rob Wheway and Alison Milward for Joseph Rowntree Foundation, 1997](#)
- > [Design Council. \(2017\). \[video\] Directed by L. McCay. Design Council.](#)
- > [Disability Consultation SUMMARY and Action Plan. \(2016\). 1st ed. Living Sport.](#)
- > [Enriching experience through green space design, University of Exeter, Bell SL., Lovell R., Maclean I., Curtis R., Collings-Costello N. and Wheeler BW. \(2016\).](#)
- > [Faculty of Public Health \(2010\). Great Outdoors: How Our Natural Health Service Uses Green Space To Improve Wellbeing Briefing Statement. 1st ed. London: Faculty of Public Health.](#)
- > [Faculty of public health \(2014\). The case for action by the Active Transport for Healthy Living Coalition. 1st ed.](#)
- > [Fields in trust \(2015\). Guidance for Outdoor Sport and Play Beyond the Six Acre Standard England. 1st ed. The National Playing Fields Association.](#)
- > [Greasley-Adams, C., Bowes, A., Dawson, A. and McCabe, L. \(n.d.\). 4. Enriching experience through green space design. 1st ed. Stirling: Colin Bell Building University of Stirling.](#)
- > [Handler, S. \(2014\). An Alternative Age - Friendly Handbook. 1st ed. The University of Manchester Library.](#)
- > [Harrison, M. \(2008\). Pocket Urban Foraging Guide. 2nd ed. Wild Food School](#)
- > [How Nature Heals: Why East Bay Doctors Are Prescribing The Outdoors To People of Colour, East Bay Express, Kathleen Richards, May 2017.](#)

- > [Korpela, K., Bordulin, K., Neuvonen, M., Paronen, O. and Tyrväinen, L. \(2017\). Analysing the mediators between nature-based outdoor recreation and emotional well-being. 1st ed. Journal of Environmental Psychology.](#)
- > [MacKerron, G. and Mourato, S. \(2013\). Happiness is greater in natural environments. 1st ed. Global Environmental Change.](#)
- > [Marshall, G. and Corcoranm, R. \(2017\). Yangzhou World Healthy City.](#)
- > [Mathews, N. \(2016\). The Journal of the Town and Country Planning Association town & country planning. 1st ed. TCPA.](#)
- > [McCafferty, S. \(2016\). The Journal of the Town and Country Planning Association Town & country planning - healthy new towns for the 21st century. 1st ed. TCPA, pp.458-460.](#)
- > [McDonnell, D. \(2017\). Delivering healthier places: Progress on the Healthy New Towns programme. 1st ed.](#)
- > [Morphet, J. \(2016\). The Journal of the Town and Country Planning Association town & country planning. 1st ed. TCPA.](#)
- > [Northstowe Phase 2 Design Code: Document Review. \(2017\). 1st ed. Intelligence Buildings Infrastructure.](#)
- > [Planning Services \(2009\). Open Space in New Developments Supplementary Planning Document. 1st ed. Cambourne: South Cambridgeshire District Council.](#)
- > [Produced by Families Information Service and Parent Partnership Service \(2014\). Education, Health and Care Plan Personalised assessment, planning and support for children and young people with Special Educational Needs and/or Disabilities and their families.. 1st ed. \[ebook\] Cambridge: Cambridgeshire County Council](#)
- > [Project for Public Spaces \(ref different articles\)](#)
- > [Ross, A. \(2011\). Plugging health into planning: evidence and practice A guide to help practitioners integrate health and spatial planning Andrew Ross. 1st ed. London: Local Government Group.](#)
- > [Ross, A. \(2016\). Walking | cllrpaul4cowick.](#)
- > [Sustrans \(2008\). Take action on active travel Why a shift from car-dominated transport policy would benefit public health. 1st ed. Bristol: Sustrans.](#)
- > [Sustrans \(2017\). Sustrans School Travel Case Study: Burnwood Community School, Tunstall, Stoke-on-Trent. 1st ed. Sustrans.](#)
- > [Tobari, D. \(2017\). Understanding the health outcomes of urban design Active travel Access to services Social isolation.](#)
- > [Toms, R. \(2017\). Health: It's Not Rocket Science. Urban Design, \(142\), pp.12-39.](#)
- > [Toms, R. \(2017\). Creating healthy places.](#)
- > [Town and Country Planning Association \(2016\). Building the foundations: Tackling obesity through planning and development. 1st ed. London: Local Government Association.](#)
- > [Van Cauwenberge, J., Van Holle, V., De Bourdeaudhuij, I., Clarys, P., Nasar, J., Salmon, J., Maes, L., Goubert, L., Van De Weghe, N. and Deforche, B. \(2017\). Physical environmental factors that invite older adults to walk for transportation. 1st ed. Journal of Environmental Psychology.](#)
- > [Völker, S. and Kistemann, T. \(2014\). The impact of blue space on human health and well-being – Salutogenetic health effects of inland surface waters: A review. 1st ed. International Journal of Hygiene and Environmental Health](#)
- > [Whitebread, D., Balisilio, M., Kuvalja, M. and Verma, M. \(2012\). 1st ed. Cambridge: University of Cambridge.](#)

A.9 IMAGE COPYRIGHTS

2-01. © Phillip Porter	13
2-02. © Marco Barbieri	13
2-03. © Liz Rolfsmeier	13
2-04. © HÜSLER & Associés	17
2-05. © Hapa Collaborative	17
2-06. © Dianna Snape	17
2-07. © LWT Gunnersbury Triangle	25
2-11. © Timberplay	25
2-15. © Lab D+H	25
2-08. © Adrienne Soudain	25
2-12. © Timberplay	25
2-16. © John Hyland, Peter Neal, Irene Shaw, LDA Design	25
2-09. © micagoto	25
2-13. © 2017 Earth Wrights Ltd	25
2-17. © Andrew Lloyd Hapa Collaborative	25
2-10. © Adrian Taylor	25
2-14. © Harry Schiffer	25
2-18. © HÜSLER & Associés	25
3-22. © National Trust	36
3-23. © Ron Saunders	36
3-24. © Loughgall Country Park and Golf Course	36
3-19. © Ross Burton	36
3-20. © Funk Dooby	36
3-21. © Lenny	36
3-25. © Stephane Bidouze_Shutterstock	38
3-26. © Ordnance Survey 2017	38
3-27. © Judy Van Der Velde	38
3-28. © Vermont Community Garden Network 2017	40
3-29. © 2017 Imperial College London	41
3-30. © Steve Byrne	42
3-31. © Telegraph Media Group Limited 2017	42
3-32. © 2017 Beechwoodtrees	44
3-33. © 2017 King's Cross Central Limited Partnership	44
3-34. ©2014 Chicago Botanic Garden	46
3-35. © 2016 Strategic Behavioral Health	46
3-36. © DoDEA	47
3-37. © Reflected Serendipity	47
3-38. © The Great Outdoor Gym Company	47
4-41. © Velosolution	55
4-40. © Frank-Heinrich-Mueller	55
4-39. © 2014 Cedarlawn Tree Service	55
4-44. © Tom Pine	56
4-43. © Phillip Porter	56
4-42. © Brendon Connelly	56



South East Studio The Old Crown High Street Blackboys Uckfield East Sussex TN22 5JR T 01825 891071 E mail@cbastudios.com W www.cbastudios.com

London Studio Woolyard 52 Bermondsey Street London SE1 3UD T 020 7089 6480

Directors D Watkins BSc MSc MRTPI • A Croft BA MA MCIFA

Senior Consultant C J Blandford BA DipLD MLA FLI

Chris Blandford Associates is the trading name of Chris Blandford Associates Ltd Registered in England No 3741865. Registered Office: The Old Crown High Street Blackboys East Sussex TN22 5JR