Greater Norwich
Local Cycling and Walking Infrastructure Plan

Broadland District Council
Community at heart

NORWICH City Council

Norfolk County Council

South Norfolk COUNCIL

Main Report
March 2022

Contents

Page number

1. Introduction

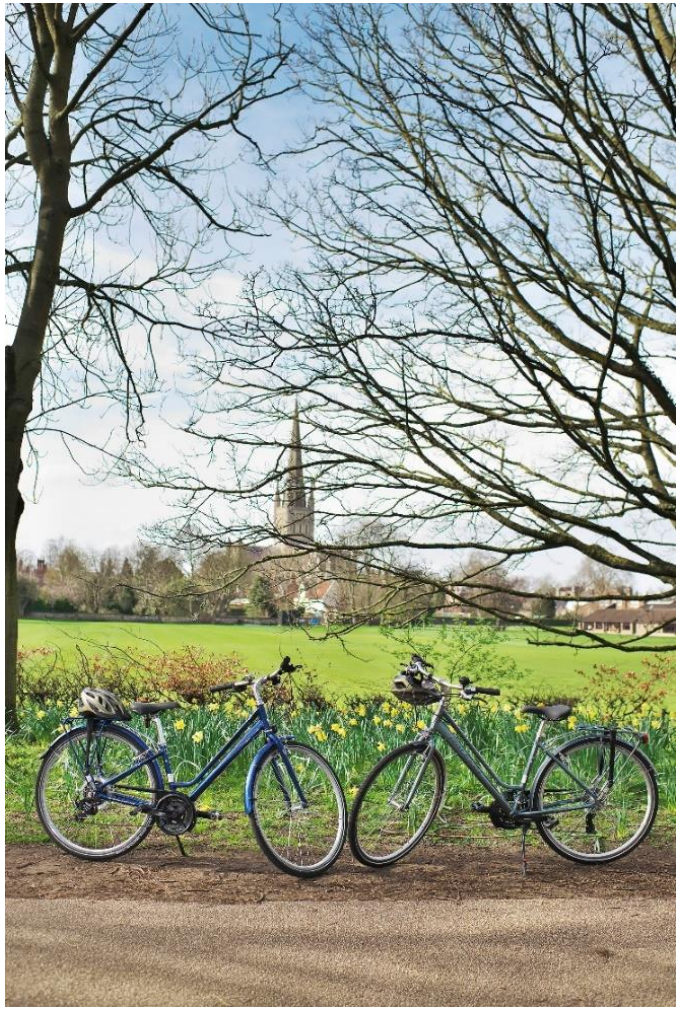
Norfolk County Council are working in partnership with Norwich City Council, Broadland District Council and South Norfolk Council to create a Local Cycling and Walking Infrastructure Plan (LCWIP) for the Greater Norwich area.

Local Cycling and Walking Infrastructure Plans play an integral part in the delivery of the overall transport strategy for Norfolk. They also support Norfolk County Councils ambition to make Norfolk a walking and cycling county where walking and cycling are the natural choice for all types of user for both travel and leisure in both rural and urban areas.

The purpose of the LCWIP is to identify and prioritise improvement schemes which will enhance current levels of cycling and walking (active travel) over the short, medium, and long term.

A programme of public engagement was conducted between May and July 2021 to ensure that the proposed priority schemes within the LCWIP focus on the right developments and deliver an accessible active travel network for Greater Norwich.

This report contains the detail of the priority cycling and walking network improvements schemes which have been identified by following the Department for Transport (DfT) LCWIP planning process.



This report provides information on priority active travel network improvement schemes for Greater Norwich

2. Why improve the cycling and walking network?

Research has shown that cycling and walking are good for our physical and mental health[i] and by making more journeys via active modes of transport, we can improve our quality of life, benefit the environment and enhance local productivity.

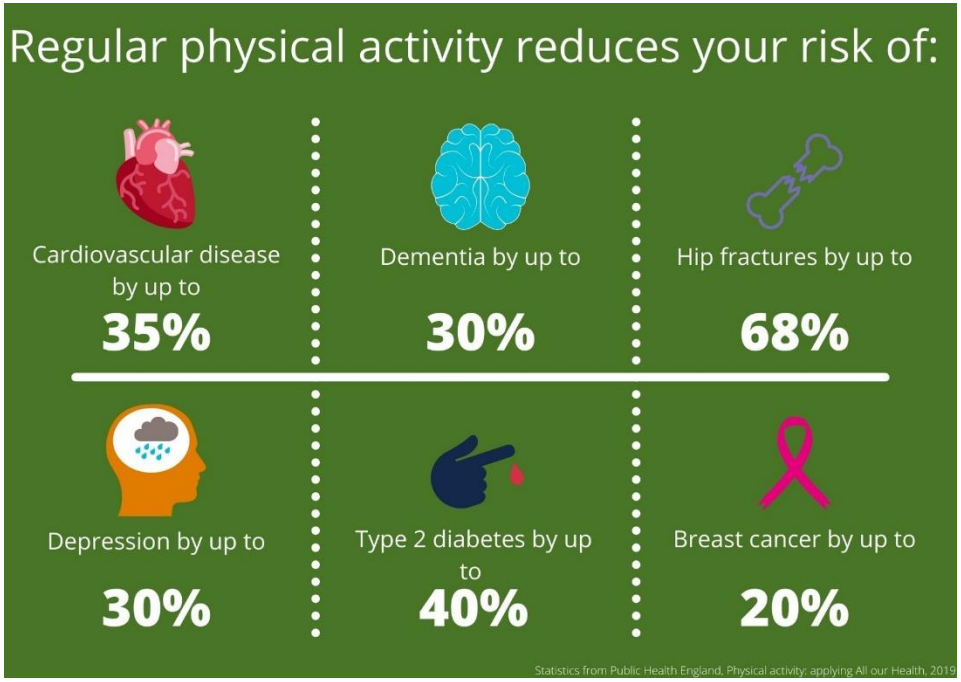


Figure 1: The medical benefits of cycling and walking

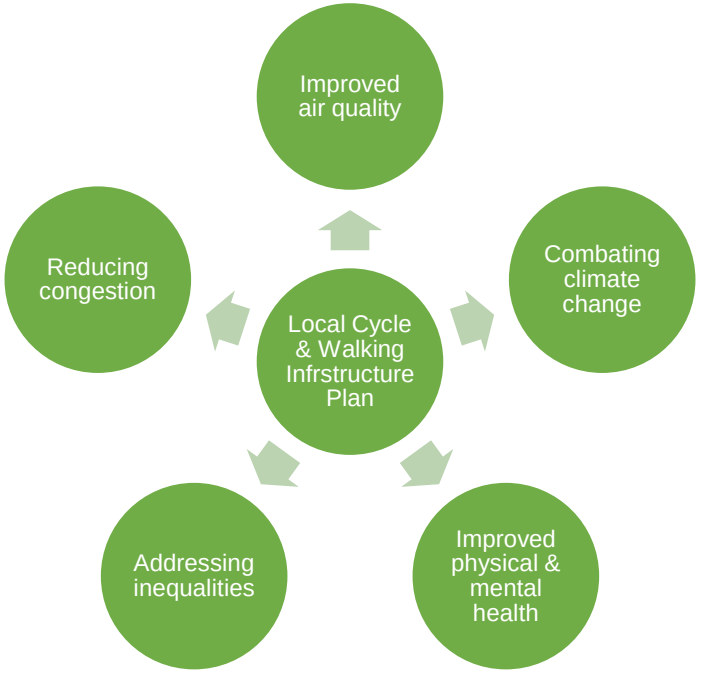


Figure 2: The benefits of increased levels of cycling and walking

When investing in cycling and walking networks can also help tackle some of the most challenging issues we face as a society by improving air quality, combatting climate change, addressing inequalities in society and tackling congestion on our roads[ii].

Increased levels of cycling and walking has long term environmental, economic and health benefits

3. Why do we need a Local Cycling and Walking Infrastructure Plan?

In 2017, the Department for Transport (DfT) set out the national vision for cycling and walking and released the "Gear Change"[iii] policy paper, which provides local authorities with guidance on developing active travel networks.

The policy contains four themes, which group together the key actions that need to be taken:

Better streets for cycling and people **–** by providing safe, continuous, direct routes for cycling in towns and cities, physically separated from pedestrians and volume motor traffic, serving the places that people want to go.

Cycling at the heart of decision-making – by ensuring that new housing and business developments include appropriate provision for cycling. Assessing transport schemes' value for money with more focus given to the provision of cycling schemes. Railways and bus routes working better with cyclists, more cycle parking, plus promoting cycling for the carriage of freight in towns and cities.

Figure 3: DfT Gear Change

Empowering and encouraging Local Authorities – by enabling, encouraging and empowering local authorities to do more for cycling on their roads, including appropriate maintenance. In addition, £2 billion of new funding will be provided over the next five years to support local authorities with well-defined Local Cycling and Walking Infrastructure Plans.

Enabling people to cycle and protecting them when they do – by ensuring that every adult and child who wants it can be trained how to ride a cycle safely. Working more closely with the NHS and incentivising GPs to prescribe cycling and building cycle facilities in towns with poor health. Combating bike theft and make legal changes to protect vulnerable road users, plus improvements to road safety for all road users. Establish a national electrically assisted bike support programme.

A Local Cycling and Waling Infrastructure plan enables Norfolk County Council to identify and prioritise the active travel network improvements which enable more people to use the network and supports submissions for funding opportunities.

The planning process enabled priority active travel network development schemes to be identified

4. How does the cycling and walking infrastructure planning process work?

The DfT 'Gear Change' policy document outlines six key planning stages which have been followed by Norfolk County Council.

Stage	Objective	How the objective was met for Greater Norwich
1 Determining Scope	Establish the geographical extent of the plan, and arrangements for governing and preparing the plan.	The geographical area of the plan links with the Strategic Growth Area for Norwich. This was agreed by all four local council authorities. (see page 11).
2 Gathering Information	Identify existing patterns of walking and cycling, and potential new journeys. Review existing conditions and identify barriers to cycling and walking. Review related transport and land use policies and programmes.	Census Data, Strava Metro Data (GPS) and traffic count data has been analysed to identify existing patterns of walking and cycling and potential new journeys. Network conditions and barriers to cycling and walking have been identified through Project Officer site visits and by reviewing existing plans and schemes. A review of related transport and land use policies and programmes included a review of adopted Neighbourhood Plans and key strategic transport, environment and public health policy documents.
3 Cycle Network Planning	Identify origin and destination points and cycle flows. Convert flows into a network of routes and determine the type of improvements required.	Activities completed in order to create a cycle network plan included a review of key destinations within Greater Norwich, cycle propensity modelling, and a review of existing schemes identified from the Cycle City Ambition Grant Funding and the Transforming Cities funding bid.
4 Walking Network Planning	Identify key trip generators, core walking zones and routes, audit existing provision and determine the type of improvements required.	Activities completed to create a walking network plan also included a review of key destinations within Greater Norwich and a review of existing schemes identified in the Transforming Cities funding bid.
5 Prioritising Improvements	Public engagement and prioritise improvements to develop a phased programme for future investment.	A programme of public engagement was completed in July 2021 to help prioritise proposed network improvement schemes.
6 Integration and Application	Integrate outputs into local planning and transport policies, strategies, and delivery plans.	**Next stage**

Table 1: The six stages for developing a Local Cycling and Walking Infrastructure Plan

What are the outcomes of the planning process?

The three key outcomes of the planning process include:

- a cycling and walking network plan which identifies preferred cycling and walking routes and core zones for further development.

- a prioritised programme of cycling and walking infrastructure improvements which can be put forward for existing and future Active Travel funding opportunities.

- a report setting out the underlying analysis which has been carried out on the network and provides an explanation of how the network improvements have been identified.

A comprehensive planning process has enabled local authorities to identify and prioritise active travel network schemes.

5. How does the infrastructure plan support national and local goals?

The plan for Greater Norwich supports local and national transport, environmental and public health policies:

Norwich & Norfolk Planning Policy	How the infrastructure plan supports planning policy
Norwich 2040 City Vision *Norwich City Council*	The plan ties in with the Norwich 2040 City vision of 'A Connected City' by supporting the ambition for a modern transport system that is at the forefront of digital connectivity with opportunities for all residents to link to each other.
Norfolk access improvement plan (2019 – 2029) *Norfolk County Council* *Broads National Park & National Trails*	By improving the cycling and walking network, the plan helps to provide an easy to use, safe, healthy and sustainable way to enjoy and connect with the Norfolk coast and countryside, which are key ambitions of the Norfolk Access Improvement Plan.
The Norfolk Delivery Plan *Norfolk County Council*	Increased cycling and walking as a mode of transport supports the response to the economic challenges of the pandemic and can help to maintain social distancing during the pandemic and avoid a car dominated recovery.

Local and National Transport Policy	How the infrastructure plan supports transport policy
Department for Transport "Gear Change" and **Cycle Infrastructure Design Guide (LTN 1/20).**	The infrastructure plan closely follows the guidance outlined in the Department for Transports 'Gear Change' document and the Cycle Infrastructure Design guidance. The plan also shares the ambition of encouraging walking and cycling by making it safer and more practical to travel via these modes of transport.
Norfolk Local Transport Plan 4 Strategy 2021 – 2036 (emerging) *Norfolk County Council*	The plan supports the Norfolk Local Transport Plan 4 and the Transforming Cities funding bid by enhancing connectivity, increasing accessibility, improving transport safety and providing a well-managed and maintained transport network.
Norfolk Cycling and Walking Strategy 2017 *Norfolk County Council*	The plan will help to achieve the ambitions of the Cycling and Walking Strategy by encouraging an increase in the number of people cycling and walking for work, education and leisure, by providing safe and attractive opportunities to do so.

Environment & Air Quality Policy	How the infrastructure plan supports environmental policy
Norfolk County Council Environment Policy 2019	The ambition for Norfolk is to have net zero carbon emissions by 2030. In order to achieve this, the use of sustainable modes of transport must be increased with a focus on walking and cycling.
25 Year Environment Plan HM Government	The Local Cycling and Walking Infrastructure Plan supports the Governments 25 Year Environment Plan by helping to reduce congestion and air pollution.
The Climate Change Act Revision (2019) HM Government	The plan supports the ambition of net zero greenhouse gas emissions by 2050 by delivering improvements to the cycling and walking network, which will help towards reducing congestion and carbon emissions from transport in the region.
Clean Air Strategy 2019 HM Government	The plan supports the Clean Air Strategy by helping to reduce emissions from transport.
The Paris Agreement 2015 United Nations	The improvements to the cycling and walking network will help towards reducing congestion and carbon emissions from transport in the region.

Public Health Policy	How the infrastructure plan supports public health policy
Joint Health and Wellbeing Strategy (2018-2022) *Health and Wellbeing Board Norfolk & Waveney*	The Joint Health and Wellbeing Strategy aims to encourage healthy, independent and resilient lives and to provide support to those most in need. Enabling more people to cycle and walk as a form of transport supports this ambition.
Public Health England: Working Together to Promote Active Travel 2016	The infrastructure plan delivers improvements to the active travel network which are aligned to the policy and practical actions recommended by Public Health England.

The plan for Greater Norwich also supports the Transforming Cities Programme which is a potential source of funding which could help deliver the improvements to the active travel network in the short-term.

The plan for Greater Norwich supports national and regional transport, health and environmental policies.

6. What are the active travel network design standards?

The Department for Transport has created a set of 'Cycle Infrastructure Design'[iv] guidelines which help local authorities to deliver improvements to the active travel network and represent the essential requirements for enabling more people to travel by active modes of transport (i.e. all types of cycles, cargo bikes or on foot) based on best practice both internationally and across the UK.

Design principles

Government research and experience has found that when people are travelling by cycle they need cycle network routes which are coherent, direct, safe, comfortable and attractive. The application of design standards based on these principles helps to promote the use of active travel networks and to ensure that they can be accessed by everyone.

Figure4: DfT Cycle Infrastructure Design Guidance

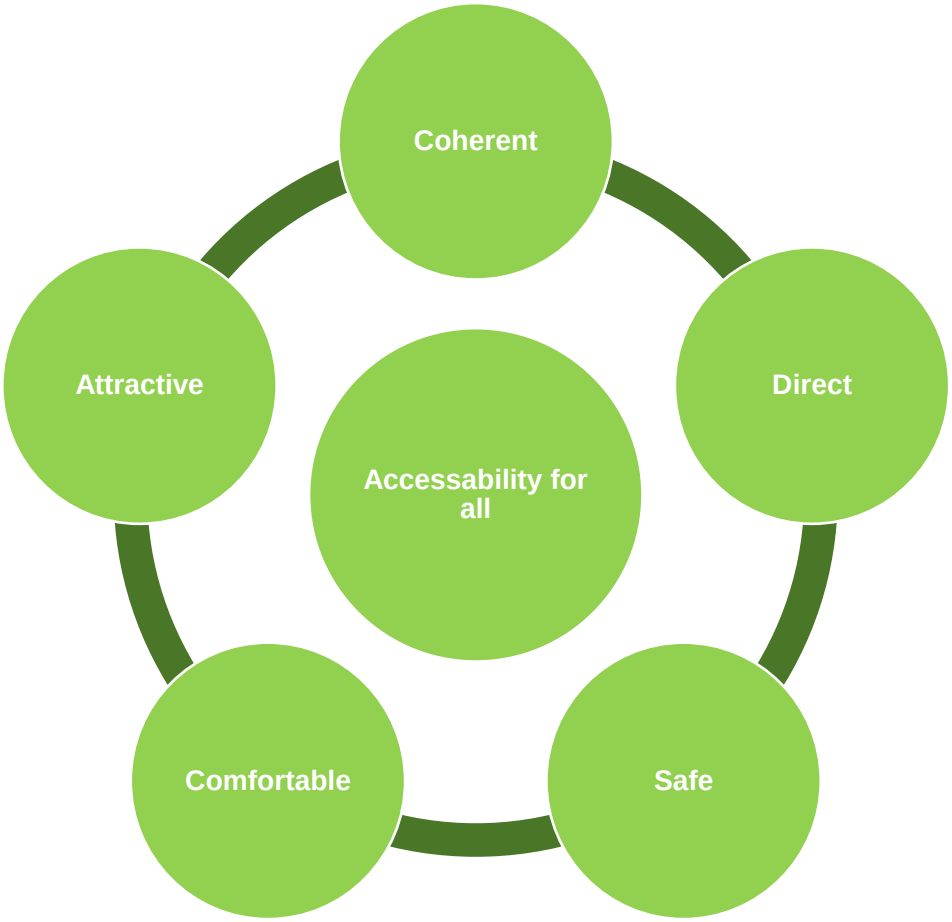


Figure 5: DfT Cycle Infrastructure Design Principles

Design principles in practice

The table below illustrates what the DfT design principles mean and how they will be applied to the active travel network.

Accessability for all				
Coherent	**Direct**	**Safe**	**Comfortable**	**Attractive**
				
Norwich Pedalway	Heath Road	Inner Ring Road	King Street	Westlegate
Design principle				
Cycle networks should be planned and designed to allow people to reach their day to day destinations easily along routes that connect, are simple to navigate and are of consistently high quality.	Cycle routes should be at least as direct – and preferably more direct – than those available for private motor vehicles.	Not only must cycle infrastructure be safe, it should also be perceived to be safe so that more people feel able to cycle.	Comfortable conditions for cycling require routes with good quality, well-maintained smooth surfaces, adequate width for the volume of users, minimal stopping and starting and avoiding steep gradients.	Cycle infrastructure should help to deliver public spaces that are well designed and finished in attractive materials and be places that people want to spend time using.
How the principles are applied				
Norwich currently has waymarking on its Pedalways network which is comprised of stickers on lampposts and road signs.	Heath Road has a point closure for motor vehicles, enforced by bollards. At the closure, there is a segregated cycle crossing across Magpie Road.	The inner ring road has very high levels of motor vehicle traffic. This is a photograph of the segregated signalised two stage crossing for pedestrians and cyclists.	King Street, a major road from the city centre to the south, has point closures and pedestrianised areas, creating a very wide, well surfaced road with very low levels of motorised traffic.	Westlegate has undergone pedestrianisation which involved the closure to all motor vehicles as well as the installation of cycle parking, benches, and a new surface.

Fig 5: Source: DfT Cycle Infrastructure Design document - core design

DfT Cycle Infrastructure Design principles will be incorporated into all active travel network schemes.

7. What area does the cycling and walking infrastructure plan cover?

The core study area

The strategic growth area, which surrounds Norwich and extends as far as Wymondham, has been identified as the core study area for the Greater Norwich Local Cycling and Walking Infrastructure Plan.

The strategic growth area was originally defined by the Greater Norwich Growth Board, which is a local government and enterprise partnership with responsibility for identifying and funding infrastructure improvement programmes within the area.

Any potential cycling and walking improvement schemes which are outside of the core study area will be considered as part of future planning activities.

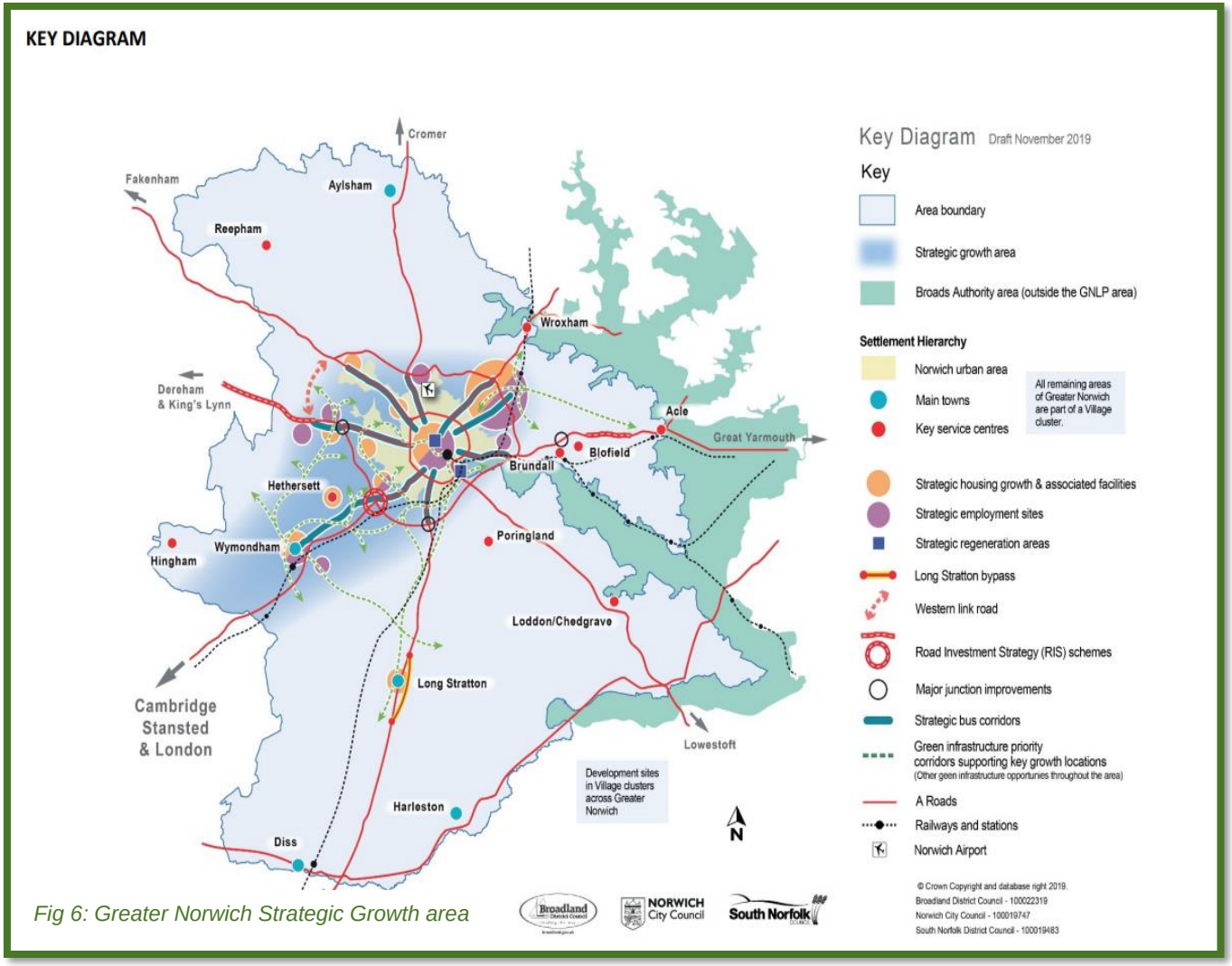


Fig 6: Greater Norwich Strategic Growth area

Norwich active travel network

Norwich has a network of active travel routes which are locally known as Pedalways.

The network is made up of six arterial routes which cross the city and two inner orbital routes. Each of the routes are colour coded and form a network which link key residential areas to places of education and employment and enable access to green spaces. The network is also supported secondary neighbourhood routes which provide additional connectivity across the network.

Although the current active travel network routes are well established, analysis of the network has identified opportunities which can improve safety, connectivity and accessibility across the region and support the wider delivery of a sustainable transport system for Greater Norwich.

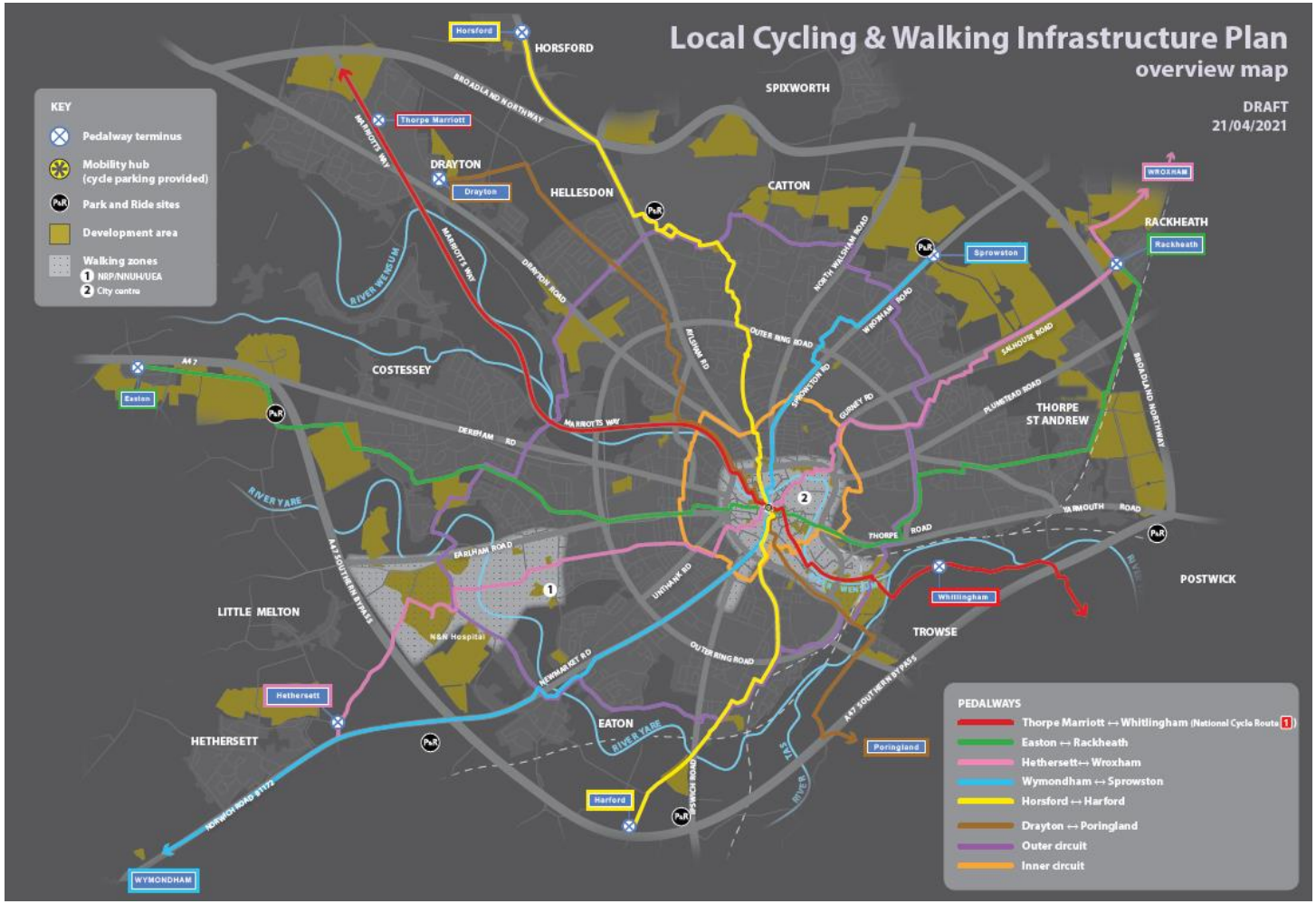


Fig 7: Norwich active travel routes

Walking zones

Norwich has two designated walking zones which give priority to pedestrians due to the high levels of walking traffic within these areas. The first walking zone is located to the west of the city and connects the University of East Anglia campus, the Norwich Research Park and the Norfolk & Norwich Hospital. The second walking zone is in the city centre and covers the historic area within the boundaries of the old city walls. The walking zone improvement schemes highlighted within this summary incorporate improvements which have been identified within the Norwich City Centre Public Spaces Plan.

Fig 8: UEA, Norwich Research Park and Norfolk & Norwich Hospital walking zone

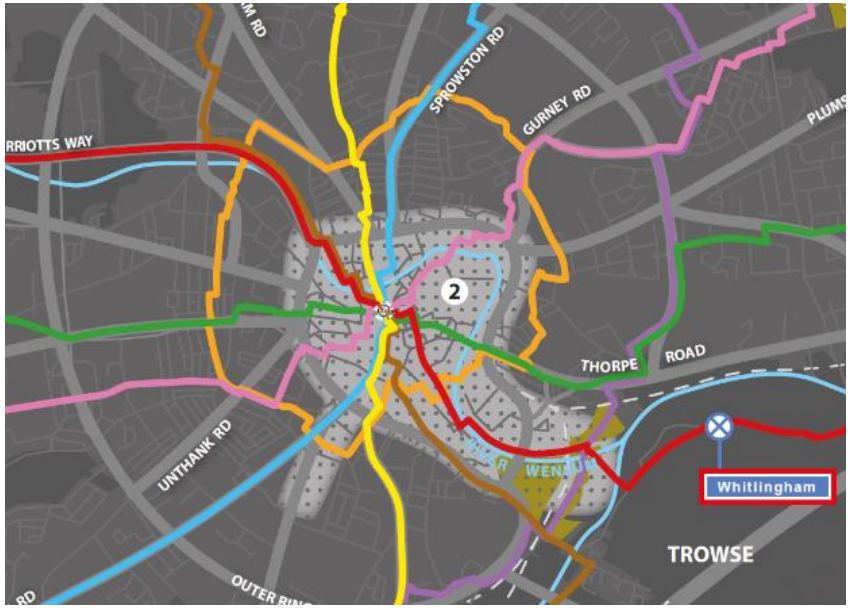


Fig 9: Norwich city centre walking zone

The plan focuses on prioritising cycling and walking routes and zones within the Greater Norwich strategic growth area.

8. Priority active travel network development schemes

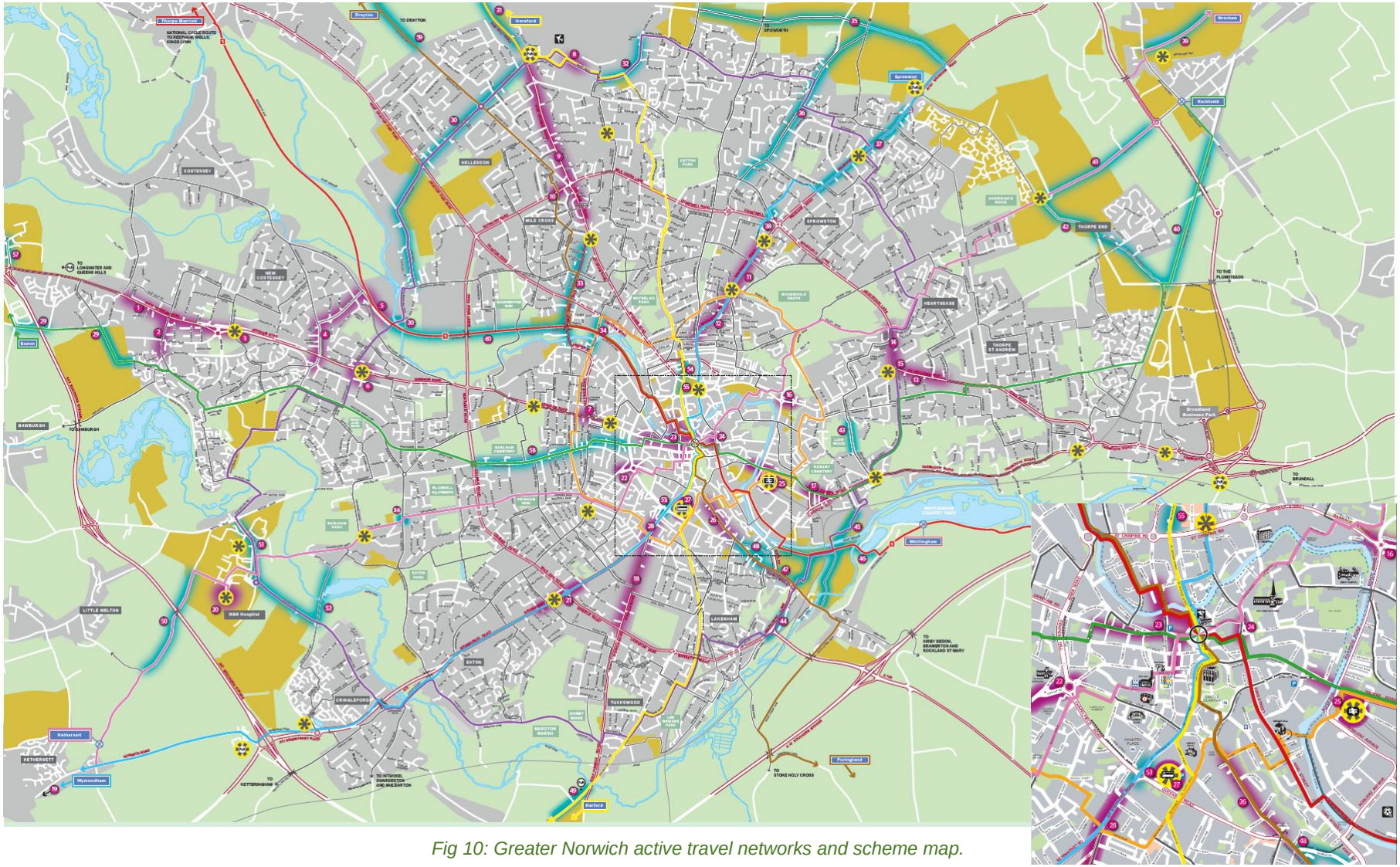


Fig 10: Greater Norwich active travel networks and scheme map.

Horsford to City Centre route (Yellow)

Route description

This route provides active travel connectivity between the rural communities north of Horsford and Norwich City centre linking key destinations along its route including the Nest Community Hub, Airport Park & Ride and the Airport Aviation Academy. The route also connects dense residential areas with areas of employment and green spaces, such as Waterloo Park and Catton Park as well as local schools along its route.

An extension of the shared use path on east side of Holt Road between Buck Courney Crescent and the Broadland Northway will extend access to the village of Horsford 6 miles to the north of Norwich. Proposed schemes also improve off road connectivity between the Airport Industrial Estate and the Airport Aviation Academy.

Priority improvement schemes

Reference	Location	Timescale	Description
8	Norwich Airport industrial estate link	Short term	Provide a new sustainable transport link between the International Aviation Academy / Airport industrial estate and Norwich International Airport. This link will be for pedestrians, cyclists and buses only and not general traffic.
31	Yellow Pedalway extension to Horsford	Medium term	Off carriageway path on east side of Holt Road between Buck Courney Crescent and the Broadland Northway. Proposal includes a 3m shared walking/cycle path and feasibility study for lighting along the route.
32	Hurricane Way	Medium / Long	Widening to accommodate protected cycle lanes
54	Edward Street	Medium term	Widening to create wider off carriageway path or cycle contraflow on carriageway with light segregation

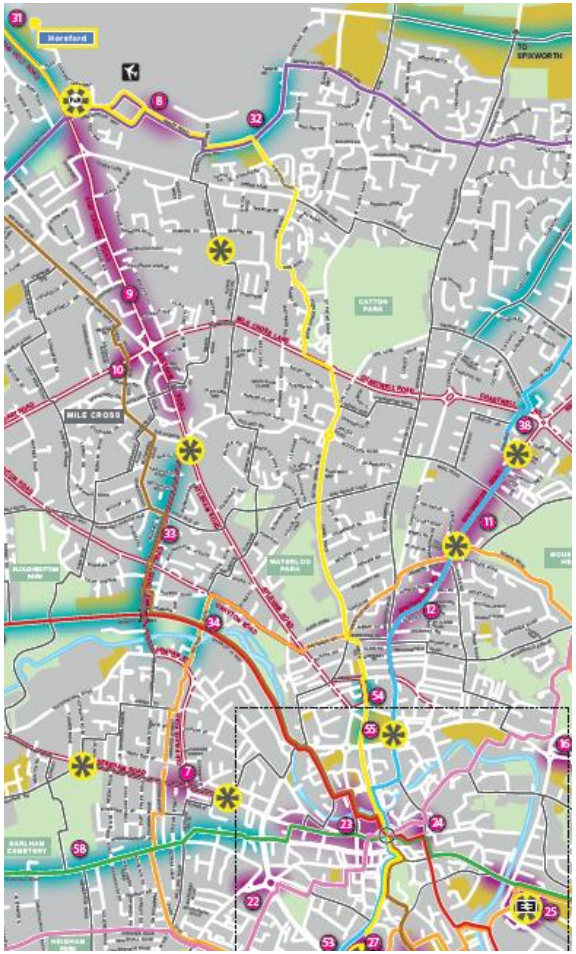


Fig 11: Yellow Pedalways scheme map

Harford Park & Ride to City Centre route (Yellow)

Route description

Connecting Harford Park and Ride and villages south of Norwich with key employment areas along Hall Road. The route enables access to Norwich City College via neighbourhood routes and the segregated off-road section of the Lakenham Way before reaching the bus station and finishing in the city centre.

The proposed scheme for this route would extend cycling and walking provision to the Harford Park and Ride.

Priority improvement schemes

Reference	Location	Timescale	Description
49	Harford P&R cycle link	Medium / Long	Feasibility to allow cycle provision to the Park and Ride either via a shared use path or segregated cycle facility

Fig 12: Yellow Pedalway scheme map

Sprowston to City Centre route (Blue)

Route description

From Sprowston Park and Ride, the route connects a planned urban extension area of 10,000 new homes with major retail outlets and schools, including Sprowston Community Academy just off Wroxham Road. The route also provides a key active travel commuter route into the city centre via Magdalen Street and links key retail areas.

New schemes will provide links with mobility hubs along the route which enable people to access the high frequency bus network.

Further changes will make the cycling and walking route safer and more coherent by creating segregated crossing points at junctions with major roads.

Bus time reliability issues caused by narrow streets will be resolved through an assessment of changes in traffic flow in the area.

Hindered pedestrian access on narrow streets will also be addressed by schemes which widen footpaths through kerb realignment.

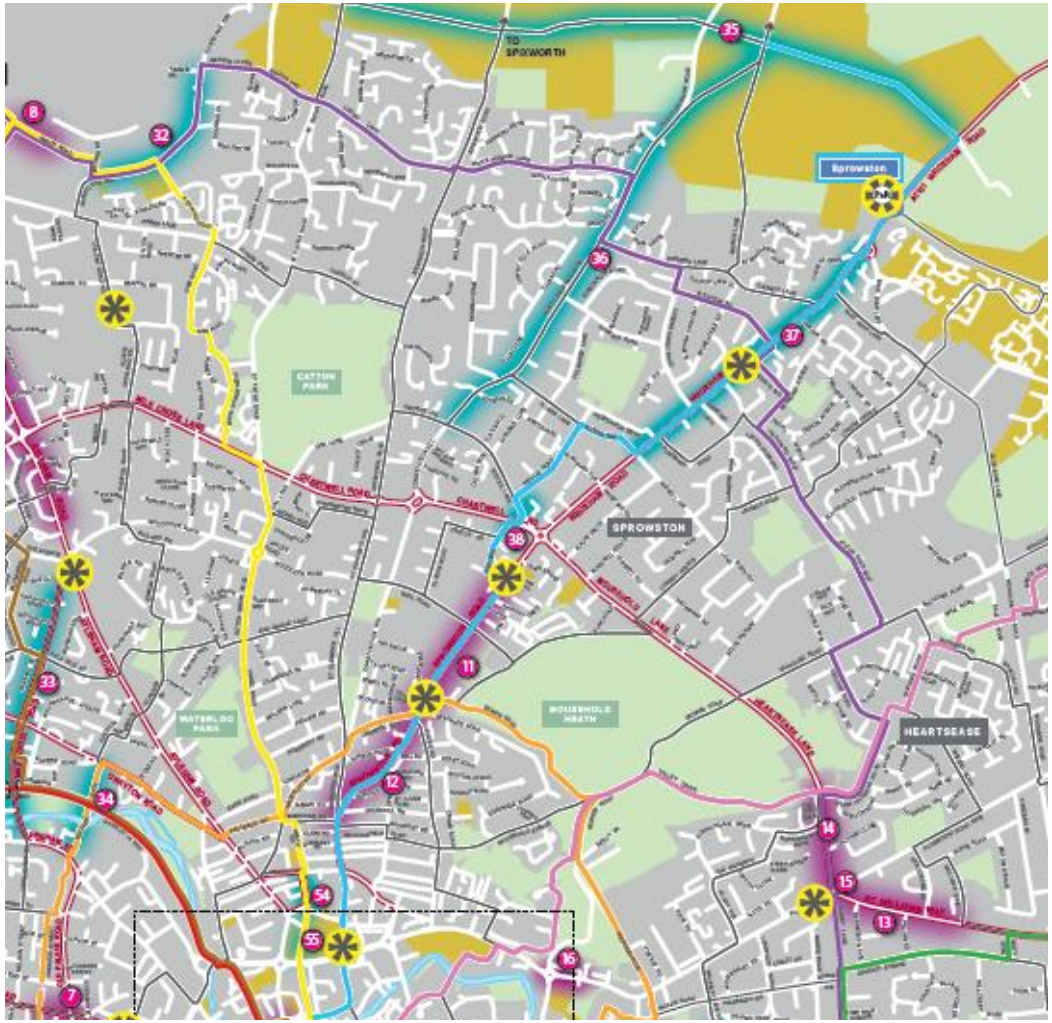


Fig 13: Blue Pedalway scheme map

Priority improvement schemes

Reference	Location	Timescale	Description
11	Sprowston Road (Denmark Road - Outer Ring Road)	Short Term	Provide an outbound (uphill) protected cycle lane alongside new sections of inbound and outbound bus lanes. This will be facilitated by a combination of kerb realignment, narrower traffic lanes and parking relocation to connect to the Broadland Growth Triangle (BGT).
12	Sprowston Road (Magdalen Road – Denmark Road	Short Term	Consider that changes in traffic flow and on-street parking may be needed to significantly aid the flow of buses along this main public transport route into the city centre from north Norwich and further afield. This is the most significant cause of bus delay along this corridor. There are significant improvements for pedestrians as cars will park entirely on the carriageway and not half on the carriageway / half on the pavement as presently (due to narrow carriageway widths and two-way traffic flows). Inbound cycling will be safer and more attractive – outbound cycling will be directed onto local quieter road.
37	Wroxham Road	Med/ Long	Feasibility study to deliver an LTN 1/20 compliant extension to existing bus lane on Wroxham Road and convert to 24hrs to improve reliability of buses. Also, feasibility study to improve path on west side and allow cycling between Allen's Avenue and Blue Boar Lane with new crossings on Wroxham Road and Chartwell Road. A
38	Denton Road crossing over Chartwell Road	Med/ Long	Create a new segregated cycle crossing with appropriate wayfinding on the ring road in line with LTN 1/20 Cycling Design Standards.

Wymondham to City Centre route (Blue)

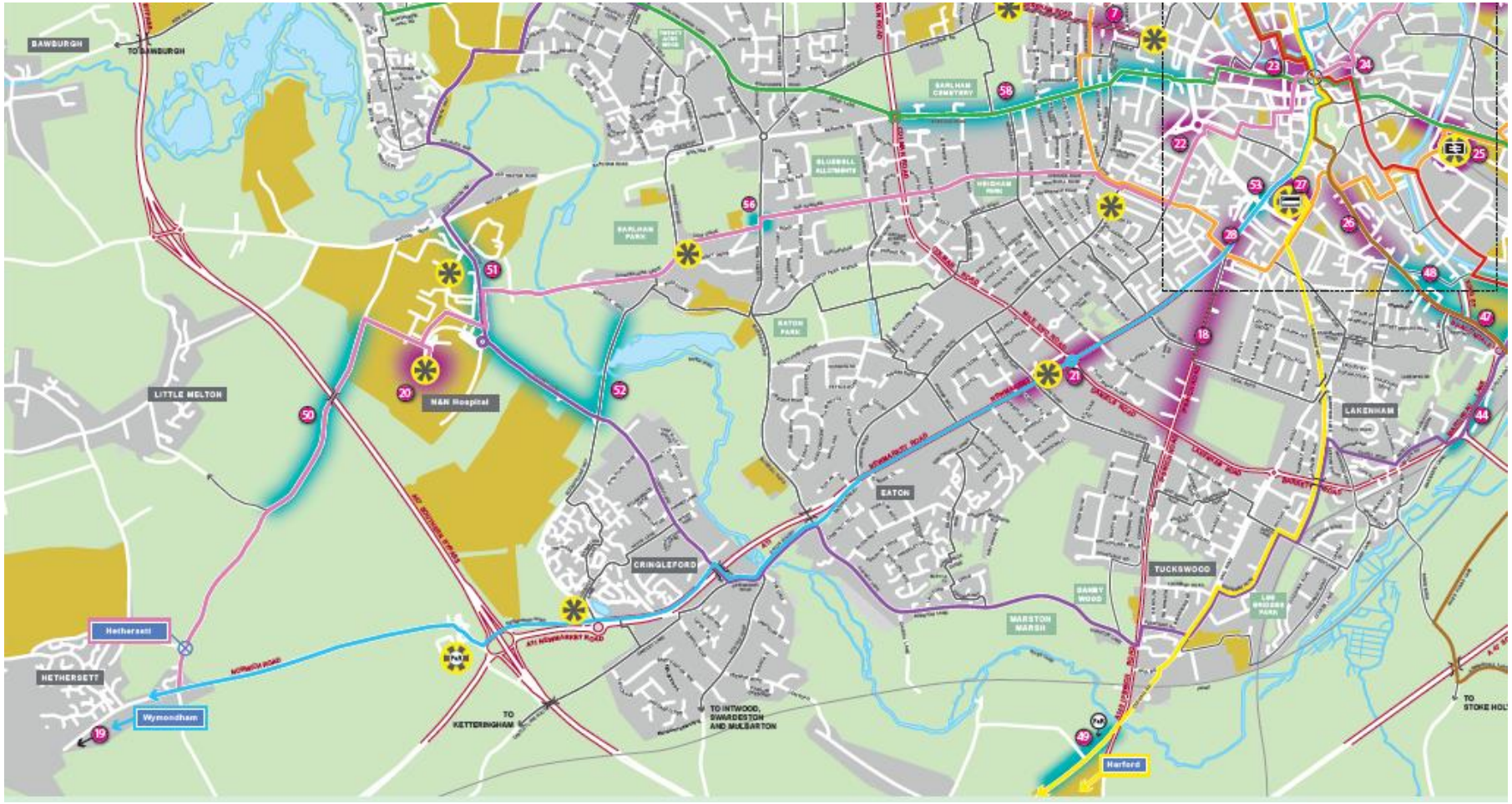


Fig 14: Blue Pedalway scheme map

Route description

This route starts at the transport hub at Wymondham train station and links with the community hub before heading out onto Hethersett and Thickthorn Park and Ride site. The route will provide connectivity for new large residential developments in the area with key points of education including the University of East Anglia and Norwich City College before reaching the city centre.

New schemes will deliver improved access at Wymondham train station as well as improved safety features for cyclists and pedestrians.

Priority improvement schemes

Reference	Location	Timescale	Description
19	Wymondham Rail Station platform access	Short Term	Deliver step-free access to the Cambridge-bound platform, which is currently not available for those with impaired mobility, suitcases, pushchairs, et
21	Newmarket Road (Eaton Road – Christchurch Road)	Short Term	Introduce a new signalised crossing across at Eaton Road to accommodate the large numbers of pedestrians and cyclists travelling to the City of Norwich school and those using the blue pedalway along Newmarket Road.

Easton to City Centre Route (Green)

Fig 15: Green Pedalway scheme map

Route description

The Easton route connects the village of Easton with Easton College and links in with the Park and Ride site at Costessey. The route provides access to green spaces and connects with bus services and mobility hubs along the route. The planned schemes will extend the current route and provide a safe crossing over the A47 and link in with new housing development and Easton.

Priority improvement schemes

Reference	Location	Timescale	Description
17	Thorpe Road (Clarence Road – Carrow Road)	Delivered	Located on the edge of the city centre, this scheme involves the implementation of a contraflow lane to provide cyclists and bus passengers with a more direct and improved access to the rail station and city centre along this key access route from the east of the city.
29	Green Pedalway extension to Easton	Medium / Long	Path connection between Draper Way and Long Lane; widening Long Lane; cycling and walking bridge over A47; off carriageway shared use path to Easton from Costessey Park & Ride

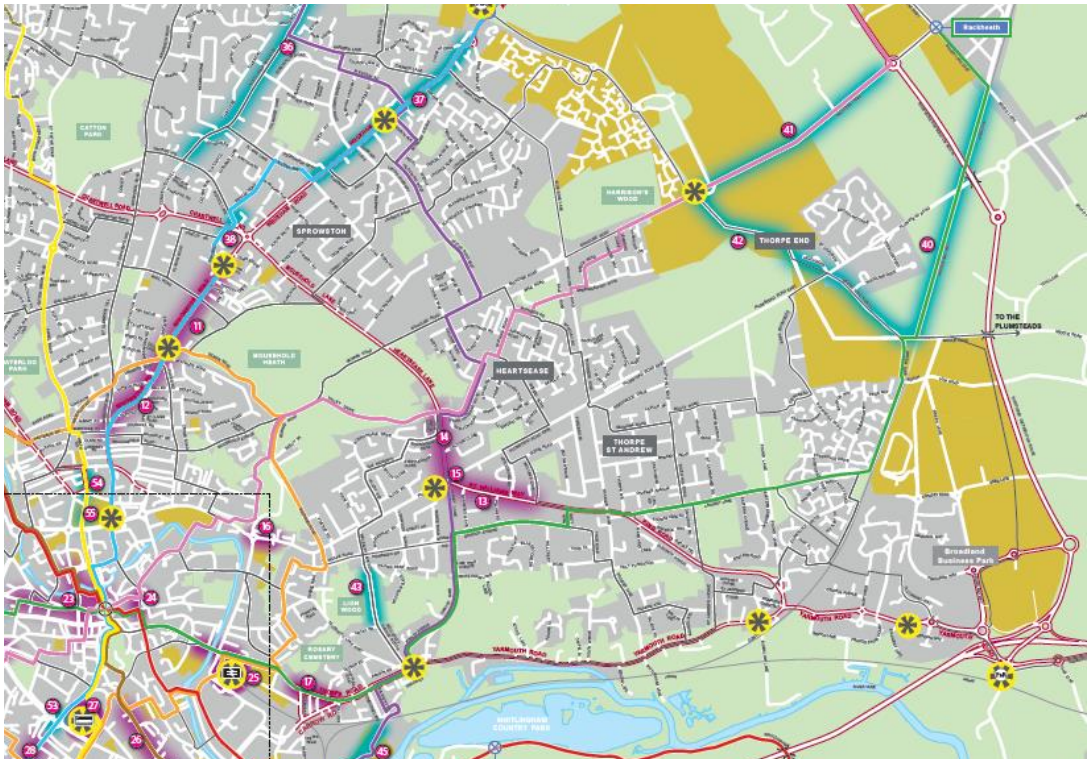
Rackheath to City Centre route (Green)

Route description

The route links Broadland Business Park and areas of high employment and housing to Norwich City Centre via Thorpe St Andrew, the Heartsease Estate and Norwich Train Station

Planned schemes improve access to Norwich train station at Thorpe Road and extend access to the business park and Rackheath.

Fig 16: Green Pedalway scheme map



Priority improvement schemes

Reference	Location	Timescale	Description
13	St Williams Way	Short Term	Improvement of cycling link between Thunder Lane and Heartsease Roundabout by incorporating light segregation into cycle lanes
40	Broadland Way (Rackheath to Dussindale)	Med/ Long	Traffic free shares use path parallel to railway between Broad Lane and Middle Road built to LTN120 standards
58	Earlham Road	Medium / Long	Feasibility study to create a secondary cycle route along Earlham Road and review pavement parking.

Wroxham to City Centre route (Pink)

Route description

The route links Rackheath into the city via Thorpe End and provides connectivity for major housing growth areas with Mousehold Heath, the historic Cathedral area of the city and city centre.

Development schemes will extend the current route and provide improved cycling and walking access to Rackheath and Wroxham.

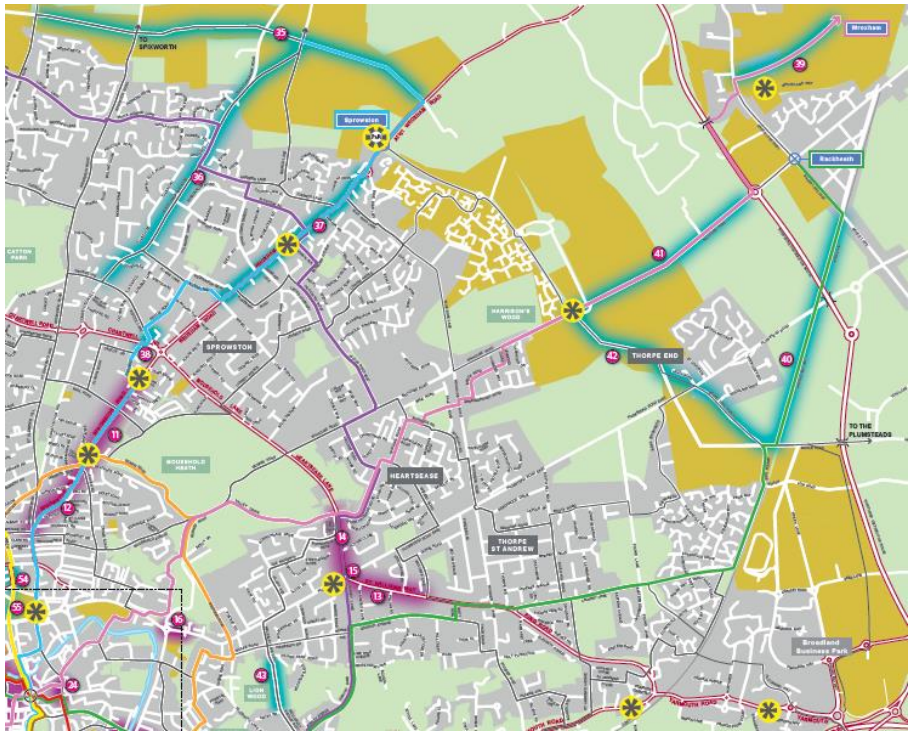


Fig 17: Pink Pedalway scheme map

Priority improvement schemes

Reference	Location	Timescale	Description
39	Broadland Way (Wroxham to Rackheath)	Med/ Long	Traffic free share use path parallel to railway between Wroxham and Salhouse Road built to the Governments Cycle Infrastructure Design Standards
41	Salhouse Road	Med/ Long	Shared use cycling and walking provision on Salhouse road linking the new development area to Rackheath. Scheme funded by developer with Norfolk County Council funding connectivity with Broadland Northway.

Hethersett to City Centre route (Pink)

Route description

Starting at the large village of Hethersett, the route connects Norwich Research Park, the Norwich & Norfolk University Hospital and University of East Anglia to the city centre.

New schemes will extend the route at Hethersett which links key areas of housing growth with Wymondham. A new mobility hub at the Norfolk & Norwich University Hospital will also help to resolve congestion.

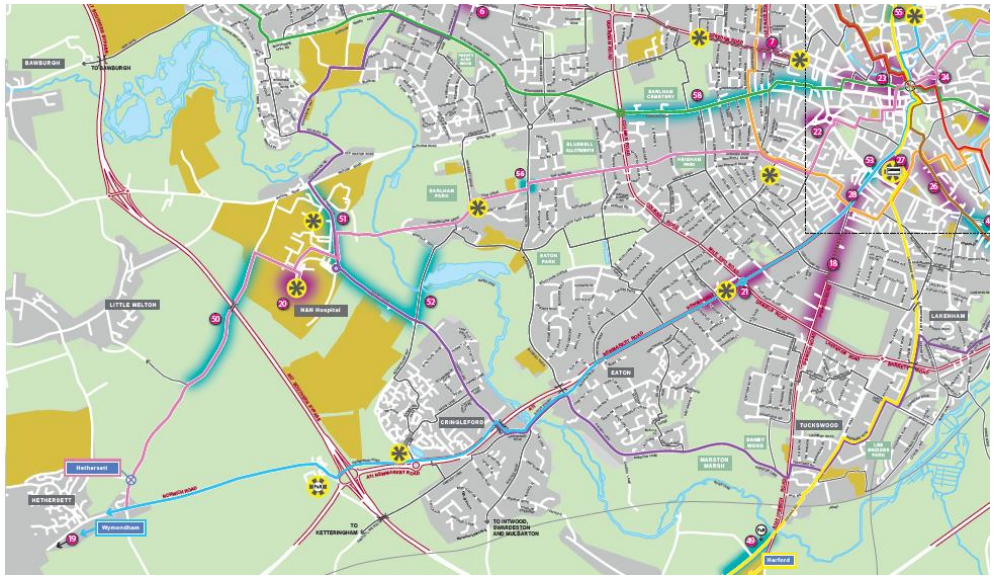


Fig 18: Pink Pedalway scheme map

Priority improvement schemes

Reference	Location	Timescale	Description
20	Norfolk & Norwich University Hospital mobility hub	Short Term	Provide a new bus interchange that resolves congestion and reduces the conflict with vulnerable users of the disabled car parking area. Also introduce a public cycle service to strengthen the mobility hub provision and increase passenger capacity.
50	Hethersett Lane	Med/ Long	Extension of cycling facilities from the new development at Hethersett across the A47 and into Norwich Research Park. Feasibility required to see if this can be segregated facilities or shared use
56	Junction at Bluebell Road	Short / Medium Term	Feasibility to improve cycling conditions at the junction on Bluebell Road.

Drayton to City Centre route (Brown)

Route description

The route connects the village of Drayton and areas of large housing growth at Hellesdon with industrial and retail areas to the city centre via the Marriott's Way. The route also serves key areas of employment at the Airport Industrial Estate and provides cycling and walking access to schools including Hellesdon High School and Mile Cross Primary school.

Development schemes will help to overcome difficulties with crossing the Boundary Road at Mile Cross and improve transport services at the Mile Cross Road shopping area.

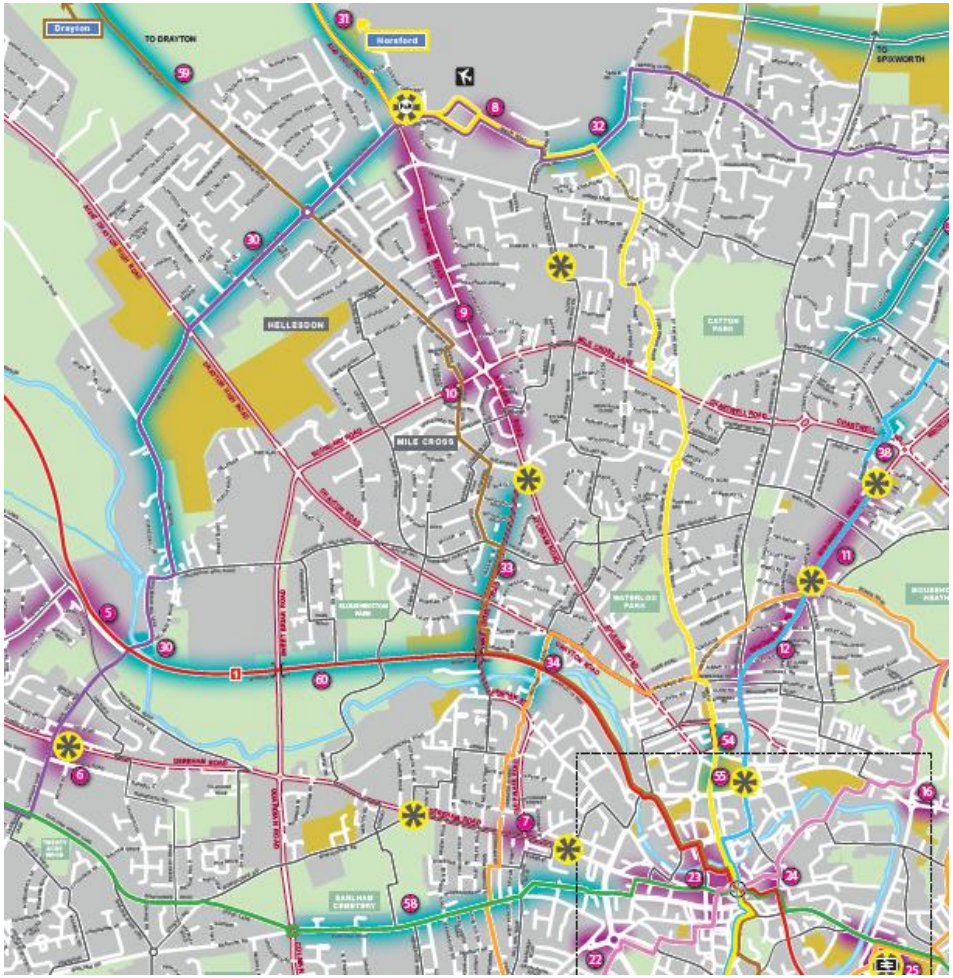


Fig 19: Brown Pedalway scheme map

Priority improvement schemes

Reference	Location	Timescale	Description
10	Cycle and pedestrian crossing of Outer Ring Road (Mile Cross)	Short Term	Access into the city from Hellesdon for cyclists is difficult because there are no crossings over the Boundary Road section of the outer ring road for cyclists. The pedestrian crossing facility at either between Rye Avenue / Vera Road or Marshall Road / Overbury Road will be upgraded for use by cyclists. This will connect to a proposed Pedalway route to Hellesdon via Reepham Road.
33A	Mile Cross Road	Short term	Co-locate and consolidate all shared transport services to create an improved transport interchange at this busy, out of city centre shopping arcade.
33B	Mile Cross Road	Medium / long	Feasibility to improve cycling conditions along Mile Cross Road.
59	Reepham Road	Medium / long	Feasibility study scheme to review cycling conditions along Reepham Road.

Poringland to City Centre route (brown)

Route description

Connecting Trowse with the city centre via Bracondale and the bus station, the route enables access to the designated growth areas at the old Colmans site (Deal Ground).

The plan includes a feasibility to extend the route and create connectivity with the large village of Poringland and beyond.

New schemes will also introduce improved safety for cyclists through the introduction of protected cycle lanes at King Street and a traffic free route via Ber Street.

Priority schemes to develop

Reference	Location	Timescale	Description
44	Martineau Lane	Med/ Long	Feasibility required for Improvement to walking and cycling facilities on Martineau lane linking to existing facility on Bracondale
47	Bracondale	Med/ Long	Protected cycle lanes; upgraded King Street / Bracondale junction; closure of Ber Street to traffic between Finklegate and Bracondale

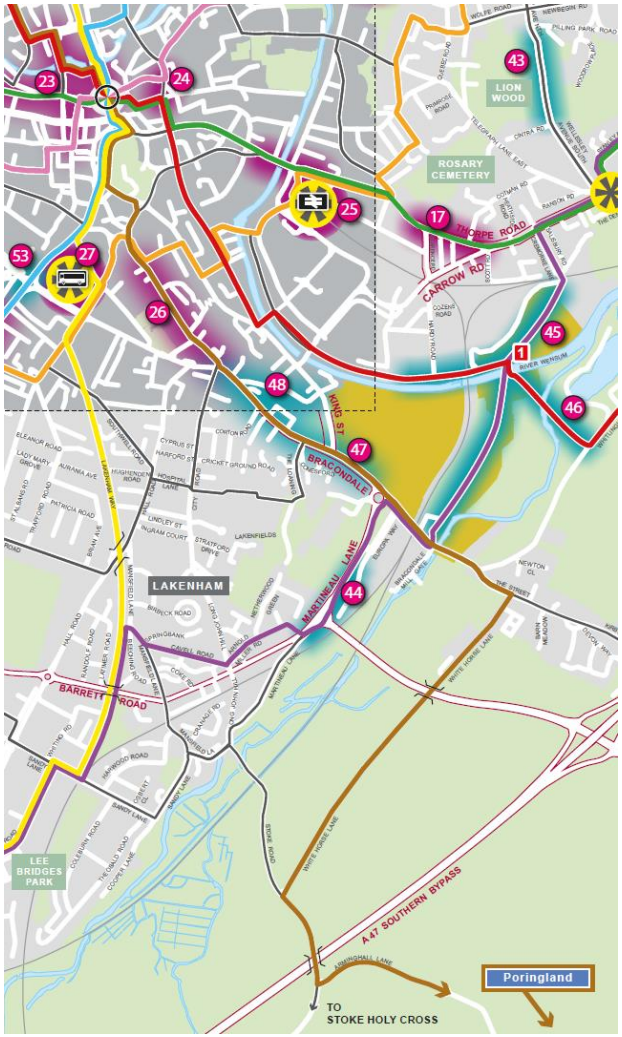


Fig 20: Brown Pedalway scheme map

Thorpe Marriott to City Centre via Marriotts Way (red)

Route description

The route links the communities at Drayton and Taverham through to New Costessey with the employment area off Barker Street and the Jane Austin College. This leads into the City via the Norwich University of the Arts, the Castle and provides wider walking links to the Riverside Walk.

Proposed schemes will create a more coherent and safer cycling and walking route by providing a segregated route on the Marriotts Way and new crossing point near Hellesdon Bridge

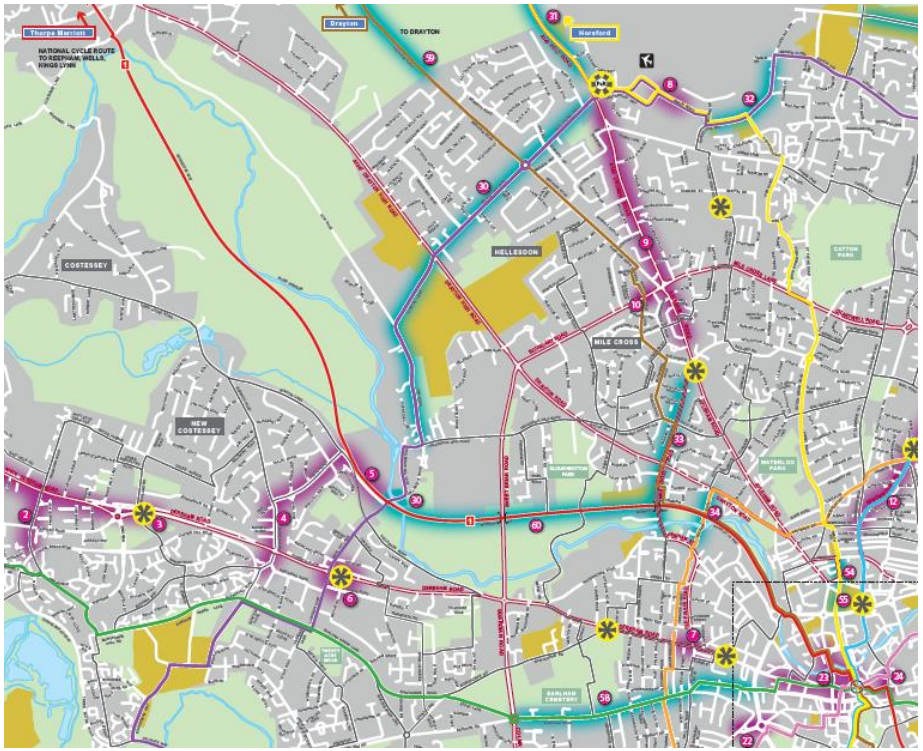


Fig 21: Red Pedalway scheme map

Priority improvement schemes

Reference	Location	Timescale	Description
5	Marriott's Way to Hellesdon Road	Short Term	Realign the existing Marriott's Way walking and cycling route to the more direct track bed route with a new sealed surface and a ramped access to a new crossing close to Hellesdon Bridge.
60	Marriott's Way review of cycling conditions	Medium / long	Surfacing and width improvements (increased to 3.5m) along Marriott's Way between Mile Cross Road and Hellesdon Road.

Whitlingham to City Centre route (red)

Route description

The route joins the city centre to the country park at Whitlingham via the new housing developments on King Street and the Deal Ground site (formerly Colmans).

New schemes will enable the route to link villages from south Norfolk to the country park at Whitlingham via a proposed new bridge over the River Wensum. These improvements improve connectivity and access to the river.

Fig 22: Red Pedalway scheme map

Priority improvement schemes

Reference	Location	Timescale	Description
46	East Norwich Regeneration Area (Carrow to Whitlingham)	Med/ Long	New link including a new crossing facility over the Yare and Wensum connecting Whitlingham Lane to Geoffrey Watling Way

Outer circuit route (purple)

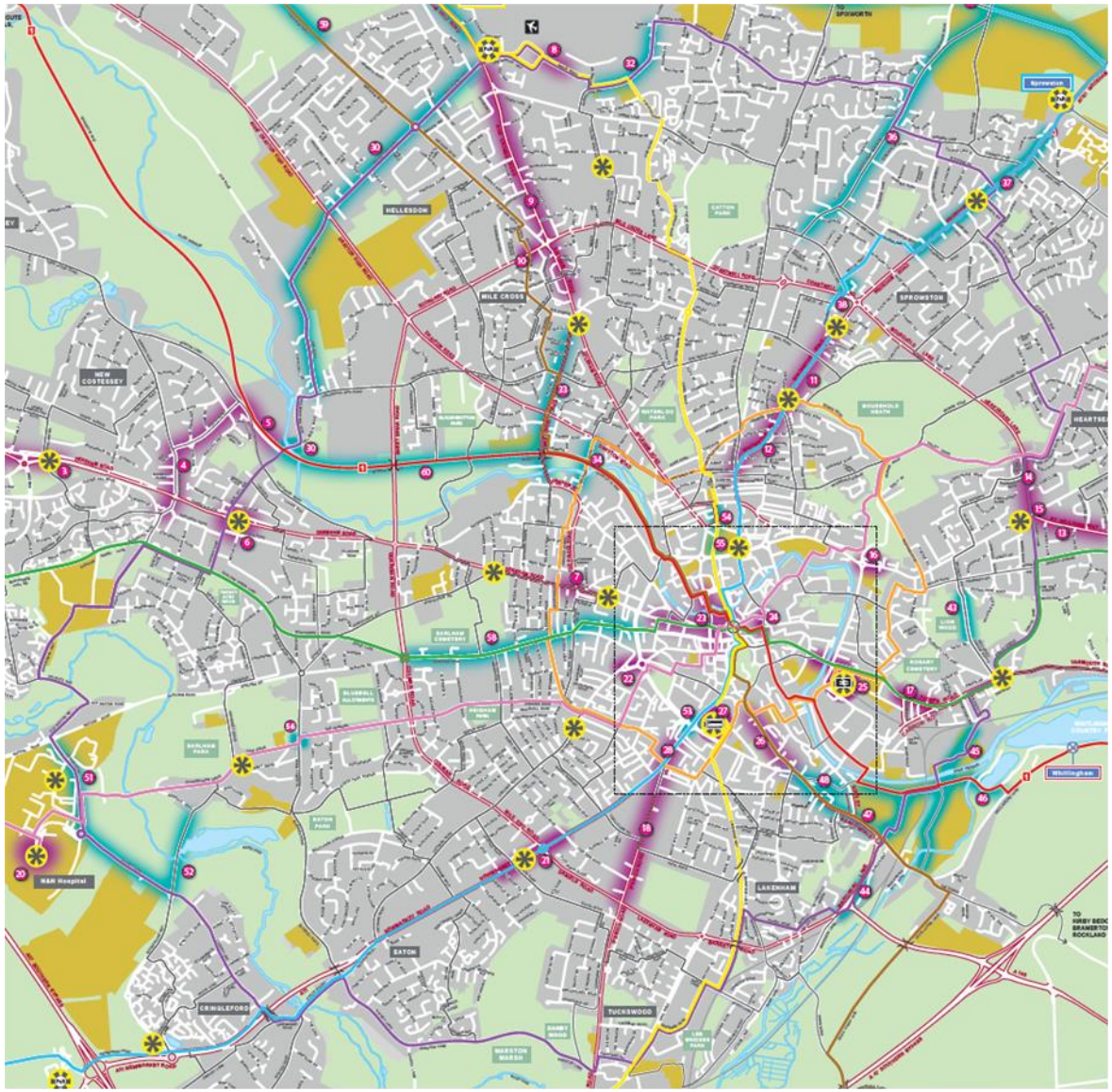


Fig 23: Purple Pedalway scheme map

Route description

This is the wider of the two orbital routes which links all the Pedalways together from the Airport in the north to Lakenham in the south of the city.

The route crosses all six of the linear pedalways twice and passes through key employment and education including Norfolk and Norwich University Hospital, University of East Anglia and Norwich airport.

The proposed schemes for this route improve the safety of the cycling and walking provision which is already in place and help to make the route more coherent.

Priority improvement schemes

Reference	Location	Timescale	Description
14	Heartsease Lane	Short Term	Provision of new mandatory cycle lane facility with wands on both sides of carriageway, improvement to the walking infrastructure with an upgrade of the pedestrian crossing to a segregated crossing and footway widening
15	Heartsease Fiveways junction	Short Term	A redesign of the junction will provide significant improvements for cyclists and pedestrians and enable bus operators to provide more efficient and reliable services.
30	Hellesdon (Low Road, Hospital Lane and Middletons Lane)	Med/ Long	Feasibility required for improved provision for cycling and walking in Hellesdon looking at the possibility of segregated cycle facilities, shared use or traffic calming.
36	North Walsham Road	Med/ Long	20mph and traffic calming inner section, protected cycle lanes outer section; new section of North Walsham Road as part of Beeston Park development
45	East Norwich Regeneration Area (Martineau Lane to Thorpe)	Med/ Long	Feasibility required for new walking and cycling route between Thorpe Road and Geoffrey Watling Way
51	Colney Lane	Med/ Long	Feasibility for improvements to the existing facilities at Colney Lane either via shared use path or segregated cycle facilities

Inner circuit route (orange)

Route description

The inner orbital Pedalway links the Train Station and Bus Station round to the north of the city, through Mousehold Heath and serves key residential areas.

The new scheme will deliver improved cycling and walking conditions along the existing route by widening the shared use path at Dolphin Path.

Fig 24: Orange Pedalway scheme map

Priority improvement schemes

Reference	Location	Timescale	Description
34	Dolphin Path	Med/ Long	Widening the shared use path at Dolphin Path which links between the Marriott's Way and Inner circular (Orange) Pedalway.

Norwich City Centre Core Walking Zone

Zone description

The Norwich City Centre Core Walking Zone covers the historic city centre and includes key areas of employment, education and recreation. It also contains the major transport hubs of the train station and bus station. This area has the highest levels of walking in the Norwich area and already has pedestrianised zones.

New schemes for the Norwich City Centre Walking zones are constant with the Public Realm Action plan which extends the zone beyond historic wall to incorporate the East Norwich Regeneration Area. This area includes the Carrow Works, the Deal Ground and the Utilities Site along the River Wensum in the south east of the city.

Fig 25: Norwich City Centre Core Walking Zone Map

Norwich City Centre Walking Zone priority improvement schemes

Reference	Location	Timescale	Description
23	Connecting the Norwich Lanes (incorporating Eastbound traffic reduction and Wensum Missing Link)	Short Term	1) Duke Street; completed riverside path at Dukes Palace Wharf to St Georges Street will increase footfall across Duke Street, development of NUA site will increase footfall further. 2) Fye Bridge Street; pedestrian crossing facility may be beneficial between Mischief Tavern and Fishergate or Quayside. 3) Whitefriars Bridge, crossing either side of river to Law Courts and Jarrold St James site may benefit from pedestrian crossing facilities 4) Foundry Bridge; crossing from Hotel Nelson to Complete Angler sections of path would benefit from pedestrian crossing facilities e.g. if relocated from junction back towards the riverside path 5) Waterside (Bishop Bridge Road steps to Zaks Barrack Street) reconstruction of mud track for all weather use, asphalt with drainage

24	Tombland	Short Term	Enhancements to walking and cycling links within Tombland, as well as public realm and highway improvements
25	Norwich Rail Station mobility hub	Short Term	Improve the Foundry Bridge junction next to the rail station with much more space for pedestrians and simpler crossing arrangements. Improve access for cyclists and provide improved facilities for buses to serve the station.
26	King Street	Short Term	Widen pavements and improve the cycle environment to create a coherent and direct link for walking and cycling along National Cycle Route 1 and improve the connection between cultural institutions, substantial new residential development and the city centre.
27	Norwich Bus Station mobility hub	Short Term	Improve pedestrian access to the Norwich Bus Station from Queens Road, encouraging an increased number of people to access the Norwich Bus Station from the west.
28	St Stephen's Road	Short Term	Improve the footway and pedestrian route along St Stephens Road between St Stephen's Street bus facilities and City.
48	Carrow Hill	Med/ Long	Feasibility into allowing contraflow cycling on Carrow Hill.
53	St Stephens Roundabout	Med/ Long	Feasibility required for at grade segregated crossing facilities at St Stephens Roundabout
55	St George's Street	Med/ Long	New segregated cycle crossing on inner Ring Road to access Anglia Square
22	Grapes Hill Roundabout	Short Term	Review signalling arrangements to improve traffic flow, remove congestion to buses and general traffic through this busy junction and accommodate cycling and walking crossings for users of the pink Pedalway.
16	Kett's Hill roundabout	Short Term	Improve safety for cyclists and introduce a bus lane on the city-bound approach. This scheme strongly complements the Heartsease Fiveways junction scheme.

University of East Anglia & Norwich Research Park Walking Zone

Zone description

The UEA/ NRP Walking zone covers the campus area of the University of East Anglia (UEA), the Norwich Research Park (NRP) and the Norfolk and Norwich University Hospital.

Development of the zone is intended to account for the future growth of the Norwich Research Park and covers some of the key employment sites in Norwich.

The University Campus has high levels of walking and with the planned growth at this site we want to ensure walking remains a key mode of transport.

A new mobility hub located and public cycle hire service at the Norfolk & Norwich University Hospital will also help to resolve congestion. A new bridge across the River Yare will improve cycling and walking connectivity with the UEA.

Fig 26: UEW/NRP Walking Zone Map

UEA/NRP Walking Zone priority improvement schemes

Reference	Location	Timescale	Description
20	Norfolk & Norwich University Hospital mobility hub	Short Term	Provide a new bus interchange close to the outpatient's entrance that resolves congestion and reduces the conflict with vulnerable users of the disabled car parking area. Introduce bike share to strengthen the mobility hub provision and increase passenger capacity.
52	Roundhouse Way – UEA	Med/ Long	Provide new bus, cycle and pedestrian bridge across Yare Valley at the western end of Chancellors Drive as well as appropriate links on either side of the bridge.

9. Priority active travel network support schemes

Active travel network support schemes are services, facilities and physical infrastructure which help and encourage people to use the active travel network. Examples include cycle parking facilities, cycle hire schemes, wayfinding signs, cycle training and walking and cycling incentives. Norfolk County Council are developing the following schemes which help make the network more accessible and enjoyable for all users.

Public Cycle Hire Schemes

Beryl Bikes – Pedal bike, E-bike and E-scooter

Public cycle hire schemes provide members of the public with safe, easy and affordable access to cycles which enable short trips to be made without relying on motorised transport.

Norfolk County Council has recently partnered with Beryl Bikes and launched a cycle hire scheme in Norwich in March 2020. Currently Beryl Bikes have a fleet of 580 cycles available in Norwich and have recently introduced e-scooters which can be found at one of the 80 parking bays located around the city.

Since launch Beryl Bikes users in Norwich have covered the equivalent of six and a half laps around the globe, according to figures from Beryl, saving 43.92 tonnes of carbon dioxide emissions[v].

Norfolk County Council will continue to work with Beryl Bikes and seek public feedback to help develop and extend the scheme within Greater Norwich over the short to medium term.

Public cycle hire schemes help to provide easy and cost-effective access to cycles

Network Wayfinding Signs

Wayfinding signs help guide cyclists and pedestrians along a defined route without the need to refer to a map or mobile device.

They are positioned along the journey at key decision points such as junctions, and sometimes in-between for reassurance.

They also help maintain user safety, cut down on user conflict and keep people informed and connected while they travel.

The signs also serve to create awareness of active travel routes and encourage people to use them. Wayfinders can be found along the existing Pedalways in Norwich.

Wayfinding signs, which comply with DfT design guidelines, will be incorporated into any new network schemes which are put forward for future funding bids.

Wayfinding sign in Norwich

Wayfinding signs help to connect active travel routes and encourage people to use the network.

Secure Cycle Parking

Secure cycle parking facilities provide cyclists with the peace of mind that their cycle is safe and secure when not in use. The design of the parking will vary depending on where it is located and how long the cycle is being stored.

Tubular cycle parking stands in Norwich

Example of on-street parking hangers

Cycle parking at Norwich Train Station

Cycle parking for short stays near busy locations such as shops, cafes and town attractions can take the form of simple tubular stands, either on their own or in large quantities depending on demand.

On-street cycle parking hangers can provide secure storage in residential areas where storing a cycle at the home is not possible.

Cycle hubs can be found at locations that cater for large numbers of cyclists storing their cycle for long periods of time. Typical locations for cycle hubs are railway stations, central bus stations, places of education and work. In the short to medium term Norfolk County Council will work with partners to identify opportunities for new secure cycle parking sites with a focus on sites close to key attractors (such as the train and bus station) and also longer term look to secure cycle parking in residential areas where there is a lack of cycle parking facilities.

Access to secure cycle parking provides people with peace of mind when storing their cycle.

Micromobility

‘Micromobility’ is a term used to describes the use of small lightweight electric vehicles to transport people and goods around towns and cities.

Examples of these vehicles include low speed electric cycles and electric scooters as well as cargo cycles which are used by businesses to transport goods within central locations.

Increasing the availability and usage of these vehicles helps to reduce traffic congestion, free up parking space and improve air quality which supports a more healthy and sustainable transport system.

In the short-term Norfolk County Council will be keen to work with strategic partners to pilot the use of lightweight electric vehicles to help transport people and goods within the Greater Norwich area.

Zedify cargo bike in Norwich

Adopting small lightweight electric vehicles in towns and cities can reduce congestion and improve air quality

Mobility Hubs

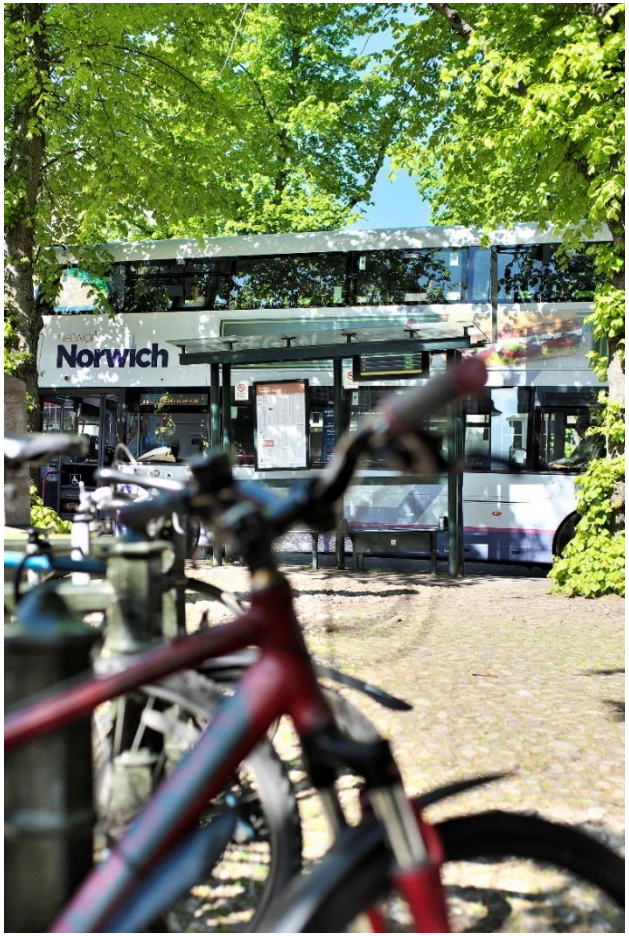
A Mobility Hub is a location that connects multiple modes of public and non-public transport and offers services which help make journeys safe, convenient and as reliable as possible.

The features and services within a Mobility Hub will be influenced by its location as well as the volume and type of traveller who will be using it.

Examples of additional transport services which may be available include cycle and scooter hire, cycle parking, car charging and parking facilities, cycle repair services, storage lockers, maps and transport information services as well as shelter from the weather and refreshments.

Mobility Hubs help to raise the profile of shared mobility services which can increase their use and commercial viability. In addition, they support low car use lifestyles which could lead to lower demand for car parking spaces in central locations with space being reallocated for housing or public area improvements.

In the short-term Norfolk County Council will be creating mobility hubs within Greater Norwich and will be working with strategic partners to identify potential new locations to grow the network over the medium term.



Mobility Hubs enable people to connect with multiple modes of transport

Mobility-as-a-service (MaaS)

Mobility as a Service (MaaS) is a term used to describe a digital transport service platform that enable users to access, pay for, and get real-time information on a range of public and private transport options.

These platforms may also be linked to the provision of new transport services. They can save people time and money and help them to stay digitally connected with live transport updates whilst on the move.

Working with Government and strategic partners Norfolk County Council will seek opportunities to invest in digital transport services for Norfolk to enable easy and efficient connectivity through the region.

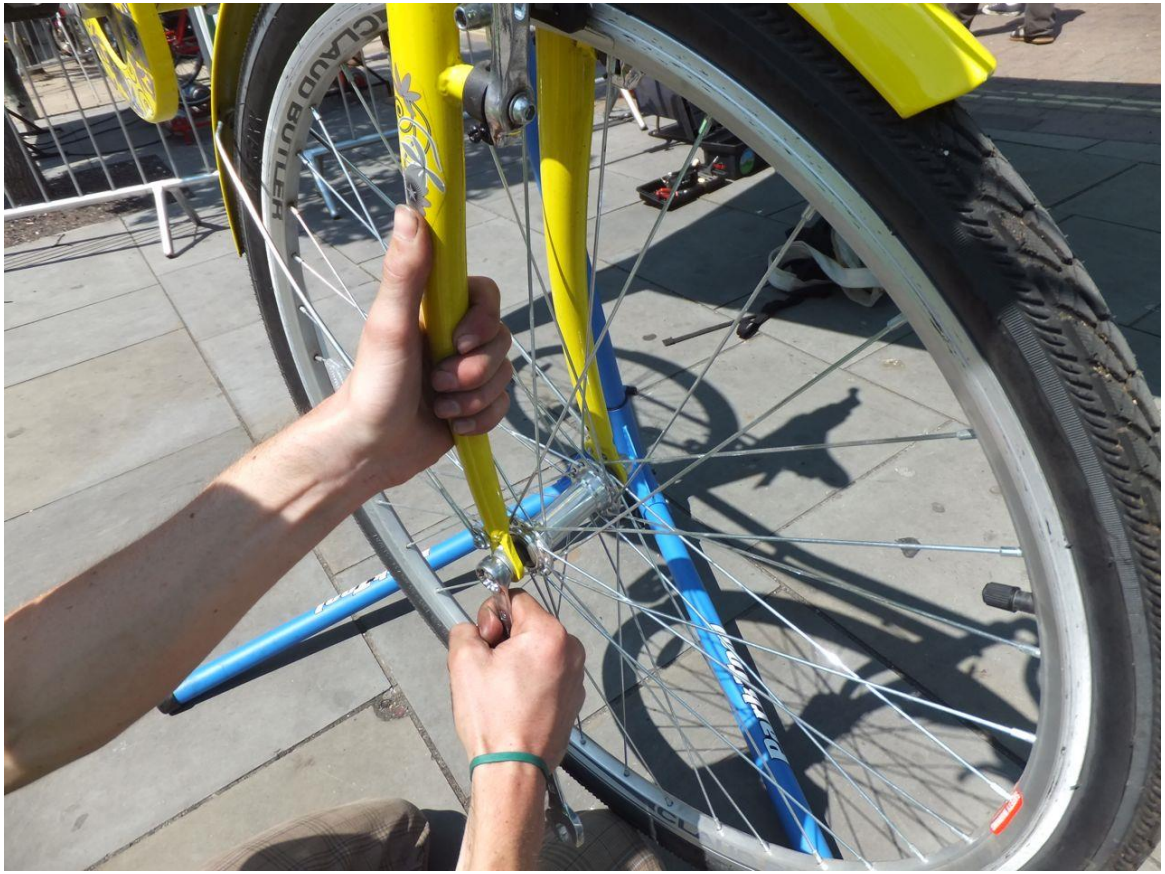
MaaS is a digital planning and information service connecting people with multiple transport modes

Cycling and Walking Incentives

Cycling and walking incentives are designed to encourage people to use and enjoy the cycling and walking network.

Examples of incentives can include:

- cycle training and maintenance programmes for schools and communities
- support for workplaces with cycle parking
- network maps,
- cycle loan schemes,
- plus, competitions to win cycling and walking equipment.



The variety of incentives offered by local authorities can change over time depending on the needs of the local community and the level of funding available.

Norfolk County Council currently offer a programme of walking and cycling incentives through the “Pushing Ahead” project (Pushing Ahead | Your journey, your way (pushingaheadnorfolk.co.uk).

Norfolk County Council will continue to develop programmes like this over the short and medium term to help communities and businesses within Norwich to use the cycling and walking network.

Incentives encourage people to use and enjoy the active travel network

Supporting network infrastructure schemes

Scheme	Timescale	Description
Public Cycle Hire Schemes	Short-term	Norfolk County Council will continue to work with Beryl Bikes and seek public feedback to help develop and extend the scheme within Greater Norwich over the short to medium term.
Secure Cycle Parking	Short/ Medium-term	Investigate funding opportunities for cycle parking solutions within Greater Norwich region.
Wayfinding (for Cycling and Walking)	Short/ Medium-term	Following infrastructure improvements improved wayfinding to publicise the priority routes and the destinations they serve.
Micromobility	Short/ Medium-term	Investigate opportunities for public/ private partnerships for micromobility pilots including (but not limited to) e scooters and e cargo bikes
Mobility-as-a-service (MaaS)	Short/ Medium-term	Working with Government and strategic partners Norfolk County Council will seek opportunities to invest in digital transport services for Norfolk
Cycling and Walking Incentives	Short/ Medium-term	Development of a targeting behaviour change programme to encourage more people to walk and cycle for economic, social, health and environmental benefits. This will be developed in alignment with key stakeholders, including public health.

Supporting infrastructure schemes make journeys easier and encourage people to choose cycling and walking

10.How will the priority cycling and walking schemes be delivered?

The plan contains cycling and walking priority schemes which will be dilvered over the next 10 years through new and existing funding sources.

Any schemes which require a new funding application will be assesed by the Government inspectorate ‘Active Travel England’.

The role of the inspectorate is to assess all new applications with the power to refuse funding bids which are not supported by an LCWIP.

By creating an LCWIP for Greater Norwich Norfolk County Council can confidently put forward robust active travel development funding bids to access existing and new sources of funding.

Potiential funding sources include;

- the Governments Transforming Cities fund which aims to improve productivity by investing in public and sustainable transport infrastructure in English cities.

- the Active Travel Fund which was announced by the Government in May 2020 to support short and long term cycling and walking projects.

The plan enables priority infrastructure improvements to be delivered as soon as funding becomes available

11. How will the success of the schemes be measured?

In 2017 the Government published an investment strategy paper for cycling and walking networks, which includes four indicators for measuring active travel network performance:

a. Cycling activity

Norfolk County Council will monitor the number of people cycling in the Greater Norwich region in order to measure any changes. In recent years Norwich has seen a 40% increase in the number of people cycling as a mode of transport[vi].

b. Walking activity

Norfolk County Council will also monitor and measure actual walking activity and compare data against recent trends. Norwich has seen an 18% increase in the number of people walking as a mode of transport over the past 10 years.

c. Cycle safety

Key indicators of cycle safety will be monitored including, safety data counts and safety survey responses which provide a measure of actual incidents and the public perception of cycling safety.

d. Active travel for education

Norfolk County Council will measure changes in the adoption of cycling and walking as a mode of transport for all pupils traveling to a place of education, including primary and secondary schools as well as places for higher education.

In addition to these measures Norfolk County Council will monitor the levels of access to the active travel network, levels of single occupancy car use, improvements in road capacity and improvements in air quality.

The Local Cycling and Walking Infrastructure Plan for Greater Norwich will be reviewed on a regular basis and resident and stakeholders will have the opportunity to provide feedback on current schemes and contribute new scheme ideas.

Increases in active travel network access and use are key measures of success.

References

[i] Physical activity: applying All Our Health - GOV.UK (www.gov.uk)

[ii] Department for Transport: Gear Change, A bold vision for cycling and walking

[iii] Department for Transport: Gear Change, A bold vision for cycling and walking

[iv] Cycle Infrastructure Design (publishing.service.gov.uk)

v Norwich Beryl Bike riders covered 270,000 km in 2020: Eastern Daily Press article 27th December 2020

vi Source Cycle City Ambition Programme: Baseline and Interim Report March 2017