

North Walsham Network Improvement Strategy

April 2020



Norfolk County Council

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Executive Summary

The North Walsham Network Improvement Strategy (NIS) identifies potential measures to help address existing transport network constraints that will also complement the growth identified in the emerging Local Plan.

Internal meetings with officers across a range of departments and with local Members, coupled with external stakeholder workshops organised by the Town Council in winter 2017/18, helped scope potential study work and identify priorities. Taking account of the budget available, this NIS has focussed on three issues:

- Potential options for a more pedestrian friendly Market Place
- Bus congestion at the stop by the Post Office on Yarmouth Road, including potential alternative locations for an interchange
- Initial feasibility work to address the constraint of low bridges either through lowering the carriageway on Cromer Road or providing an alternative route for high vehicles by using the overbridge on Bradfield Road

Key findings:

- The town centre has good permeability, although not particularly evident or legible to visitors, and there are insufficient places to shelter or stop and rest
- There is a sense that Market Place is vehicle dominated.
- By improving the Market Place as a focal point for bus access and maximising passenger boarding and alighting at that location, it would be possible to reduce the dwell time of buses at the Post Office.
- Improving the bus stop at the Post Office is preferred to alternative locations for a bus interchange.
- Lowering the carriageway under Cromer Road bridge is unlikely to be deliverable and the existing roads north of the Bradfield Road bridge are unsuitable. Further work is required to identify whether this constraint can be overcome on the Bradfield Road bridge alignment or an alternative over-bridge.

Based on findings from the study work the action plan recommends areas where consideration should be given in the form of short, medium and long-term actions. NCC will investigate funding opportunities and work collaboratively with local partners to progress delivery.

Action Plan

Time period	Cromer Road Railway underpass and Bradfield Road Assessment	Place Making Study and Bus Stopping Arrangements
Short term	<p>The initial work suggests that lowering the carriageway under the Cromer Road bridge would be a very expensive and disruptive option. The pre-feasibility work identified a range of further information that would be required to be able to explore issue further. Given the resource and cost implications, and the likelihood of this resulting in a deliverable scheme, more detailed feasibility work is not proposed.</p>	<p>The place making study has proposed three options for improvement to Market Place, with option 3 identified as the most beneficial. We will work with the District and Town Council to identify which option they would like to pursue. The District Council are working to secure funding for improvements through a successful bid to the High Streets Heritage Action Zone Programme.</p> <p>Scheme development to improve the bus stopping arrangements on Yarmouth Road (coupled with the enhancements of the market place) will be progressed.</p>
Medium/long term	<p>Norfolk County Council will work closely with District Council colleagues to understand the plans for long term growth in North Walsham and if this growth can help facilitate a solution to overcome the bridge issue.</p>	<p>Officers will work with District and Town Council colleagues to identify additional funding sources to deliver the preferred placemaking option and improvements to the existing bus interchange.</p>

Section 1: Introduction

Network Improvement Strategies

Norfolk has a population of around 891,000 people. The majority live in Norwich, Great Yarmouth, King's Lynn and 21 larger market towns. Market towns act as employment centres, commuter towns, retirement centres and/ or shopping destinations, and provide services to their surrounding rural populations. Many retain a historic core and are generally supported by seasonal tourism.

Some market towns have suffered in recent years due to online shopping and the decline of local employment in agriculture or other significant industries. The environment the town provides for people to live, work, shop and move about is fundamental to how it functions.

Norfolk County Council is undertaking a series of transport network improvement strategies in the market towns to examine current and future issues to understand the role that transport infrastructure can have in ensuring that towns continue to thrive. These network improvement strategies will look at short medium- and long-term interventions and provide evidence to inform longer term planning. To develop the understanding of the transport issues in North Walsham, Norfolk County Council attended stakeholder workshops hosted by the Town Council, carried out site visits and liaised with Highways colleagues, Local Members and other stakeholders to gather a range of views/feedback on which to prioritise study work.

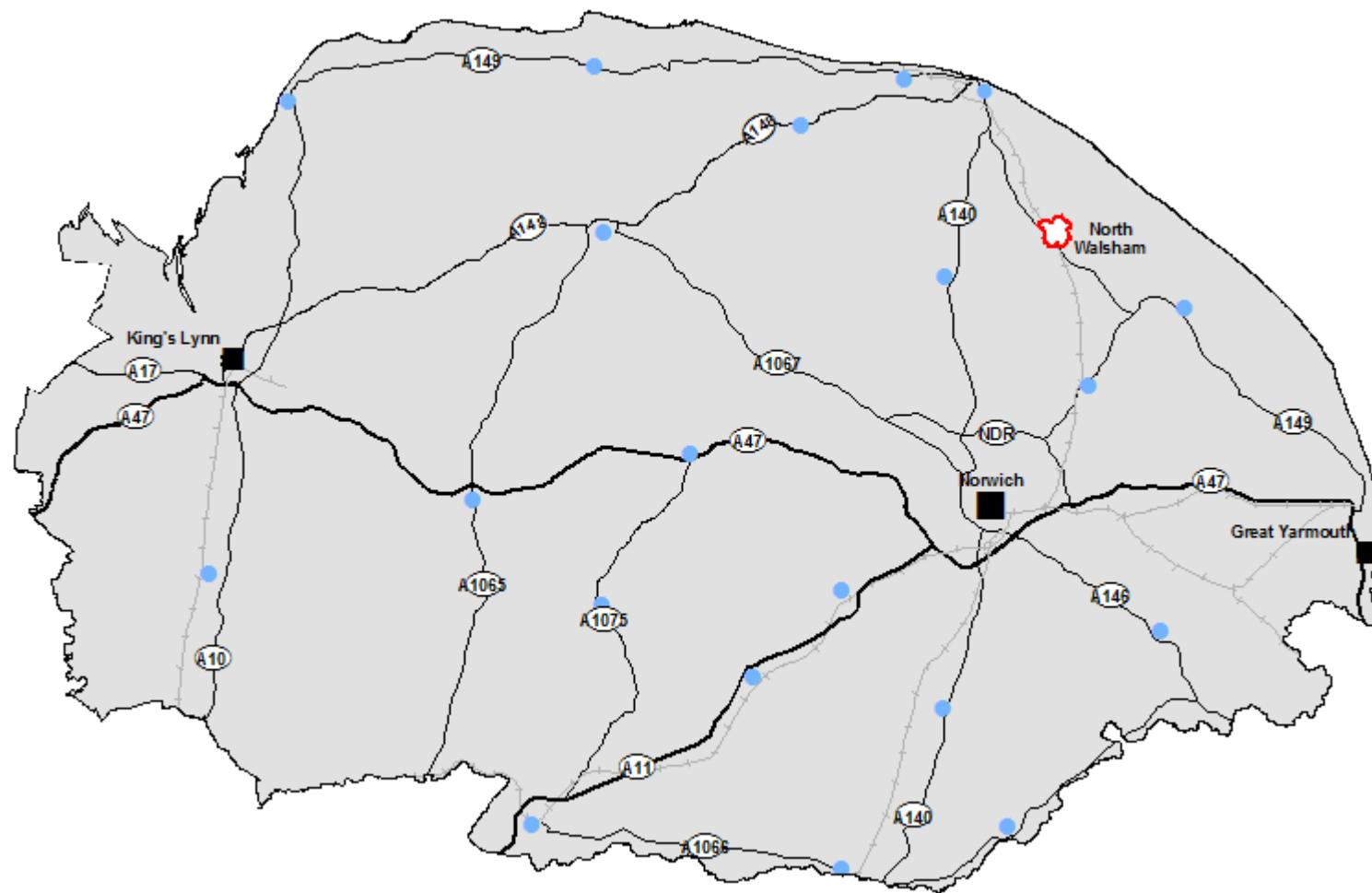
North Walsham

With a population more than 12,600, North Walsham is one of Norfolk's larger market towns. It is about 14 miles north of Norwich city centre and 10 miles north of the new Broadland Northway (previously the Northern Distributor Road or NDR) and is close to the coast and the Broads. It is served by the A149 between Cromer and Great Yarmouth. The most direct links to Norwich are via the B1150 and the Bittern line railway. Broadland Northway is likely to make North Walsham a more attractive location for investment.

North Walsham has the fourth highest market town workday population and fifth highest numbers of people in employment. It has a working age population of around 6,900 and has seen over 530 homes completed since 2001 showing it is attractive for people to live but, with a workday population of nearly 4,800, also for people to work. Around 80% of households have one or more cars available to use but this means over 1,100 households do not have a car for travel.

North Walsham's historic core has the potential to provide a vibrant high street. Norfolk County Council's Market Town report 2018 identifies North Walsham as having the fourth largest town centre. While vacant units had consistently decreased since 2011 from 23 to 13, it had a vacancy rate above the Norfolk average.

Towns in Norfolk



Section 2: Strategy and Policy Context

The National Planning Policy Framework (NPPF - Section 9) promotes sustainable transport. Para 102 sets out various transport issues that should be considered as a part of plan making and development proposals, these cover:

- the potential impacts of development on transport networks
- opportunities from infrastructure, and changing technology
- opportunities to promote walking, cycling and public transport
- the environmental impacts of traffic and transport infrastructure
- design of schemes, contributing to making high quality places

Decisions should support the role that town centres play at the heart of local communities and take a positive approach to their growth, management and adaptation. They should support long-term vitality and viability, growth and diversification that can respond to rapid changes; centres that are accessible and well connected

Local Transport Plan 3

Norfolk's 3rd Local Transport Plan, Connecting Norfolk, sets out the strategy and policy framework for transport up to 2026. It guides transport investment in Norfolk and is considered by other agencies when determining planning or delivery decisions. The strategy is accompanied by an implementation plan, setting out the measures to be delivered over the short term. It envisages "A transport system that allows residents and visitors a range of low carbon options to meet their transport needs and attracts and retains business investment in the county".

Six strategic aims underpin the vision, they are: maintaining and managing the highway network; delivering sustainable growth; enhancing strategic connections; reducing emissions; improving road safety; and improving accessibility.

North Norfolk Local Plan Policy

The adopted Core Strategy seeks to

- increase walking and cycling in all settlements and the use of public transport between larger settlements;
- ensure North Walsham has a vibrant town centre with a broader range of shops and services;

The plan allocates 550 dwellings and 10ha of additional employment land. These allocations are shown on Figure 6.1. North Norfolk are preparing an updated Local Plan which will replace their Core Strategy. The Local Plan will run to 2036 and the first consultation on the plan took place in May 2019. It proposes significant housing growth to the west of the town with a link road between Cromer Road and Norwich Road.

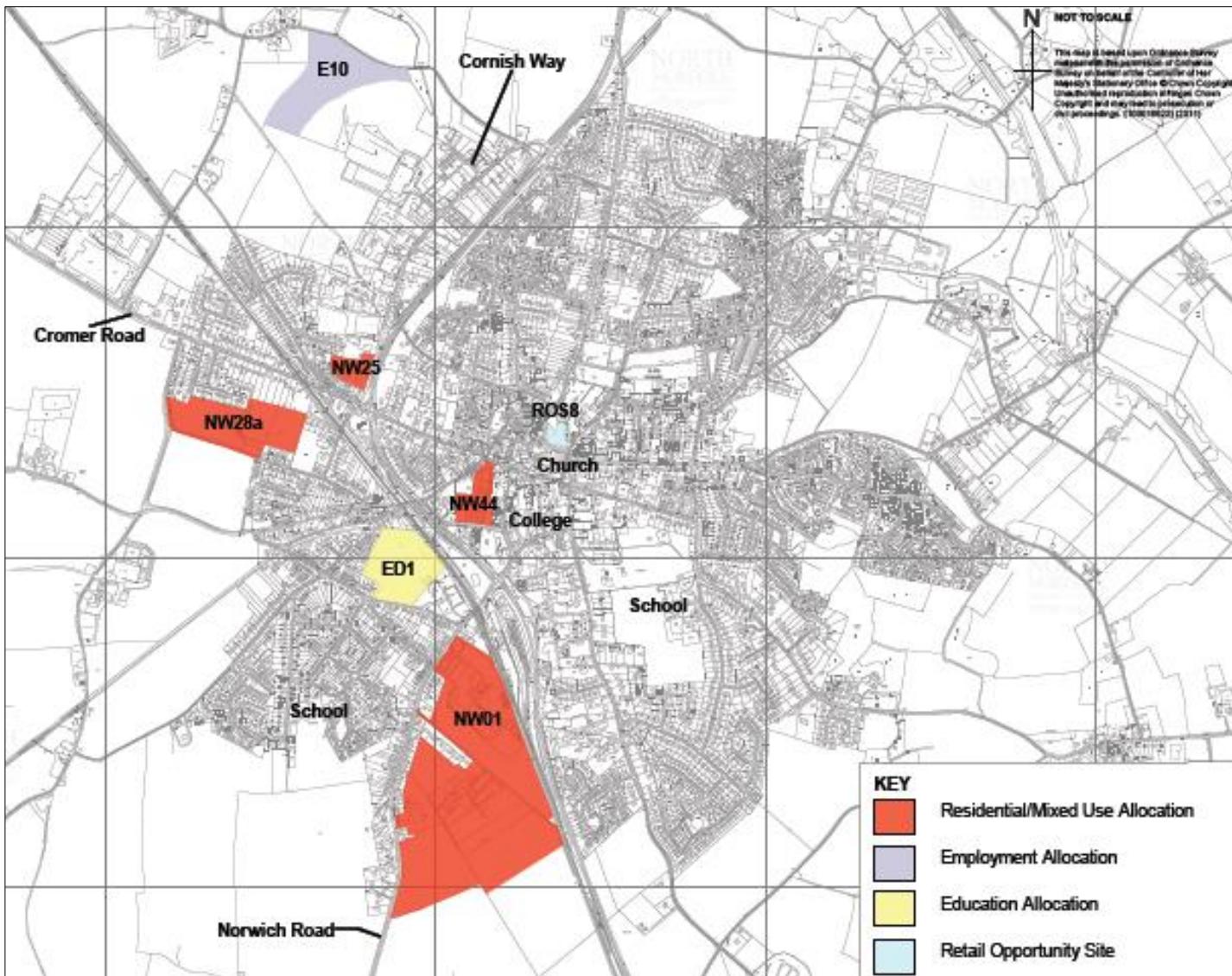


Figure 2.1: North Norfolk Core Strategy Site Allocations

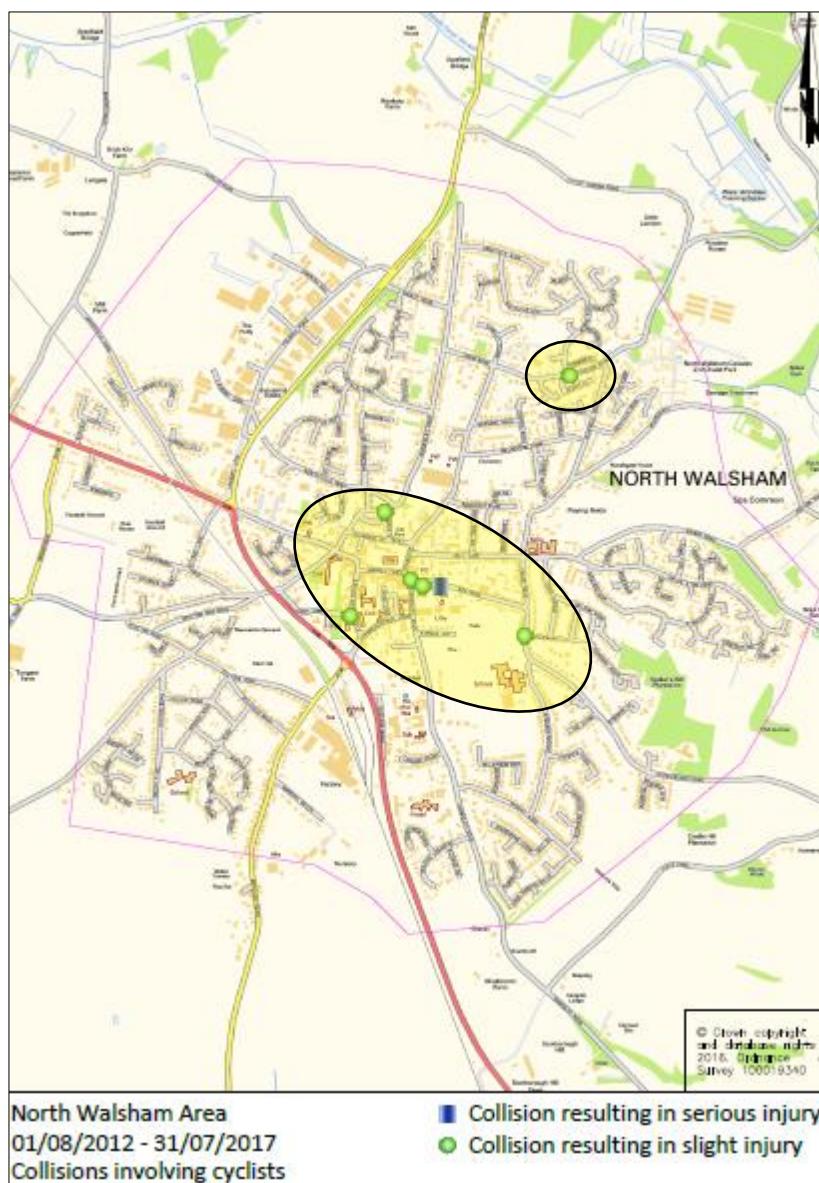
Section 3: Transport in North Walsham today

This section considers whether current transport issues raise concerns that require further analysis through the NIS.

Casualties

The police are required to compile records of injury collisions. No record is maintained for collisions where no injury results. The maps below identify both slight and serious injuries in the period 2012-2017.

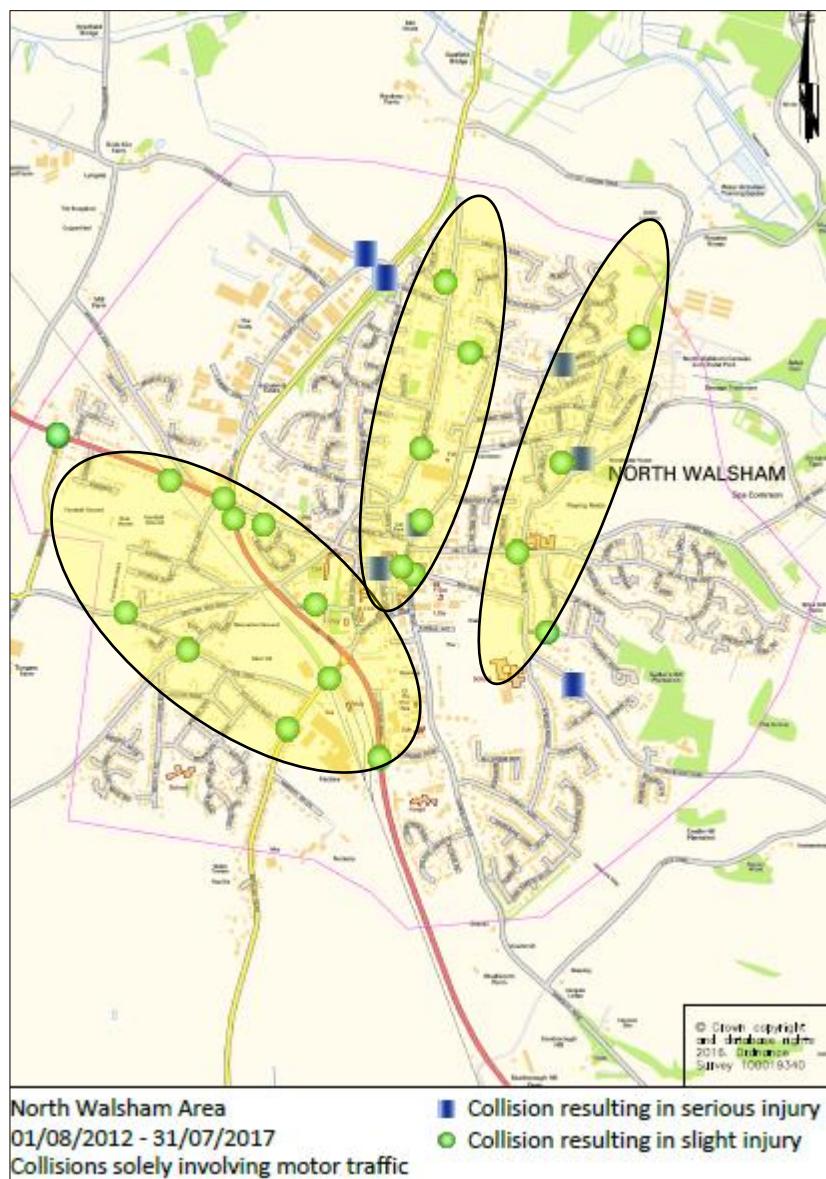
Figure 3.1: Collisions involving cyclists



Cyclist accidents – there were six collisions over a five-year period resulting in slight injury and one in a serious injury. Although the number of collisions is low they are clustered around the streets surrounding the market place, with the serious injury

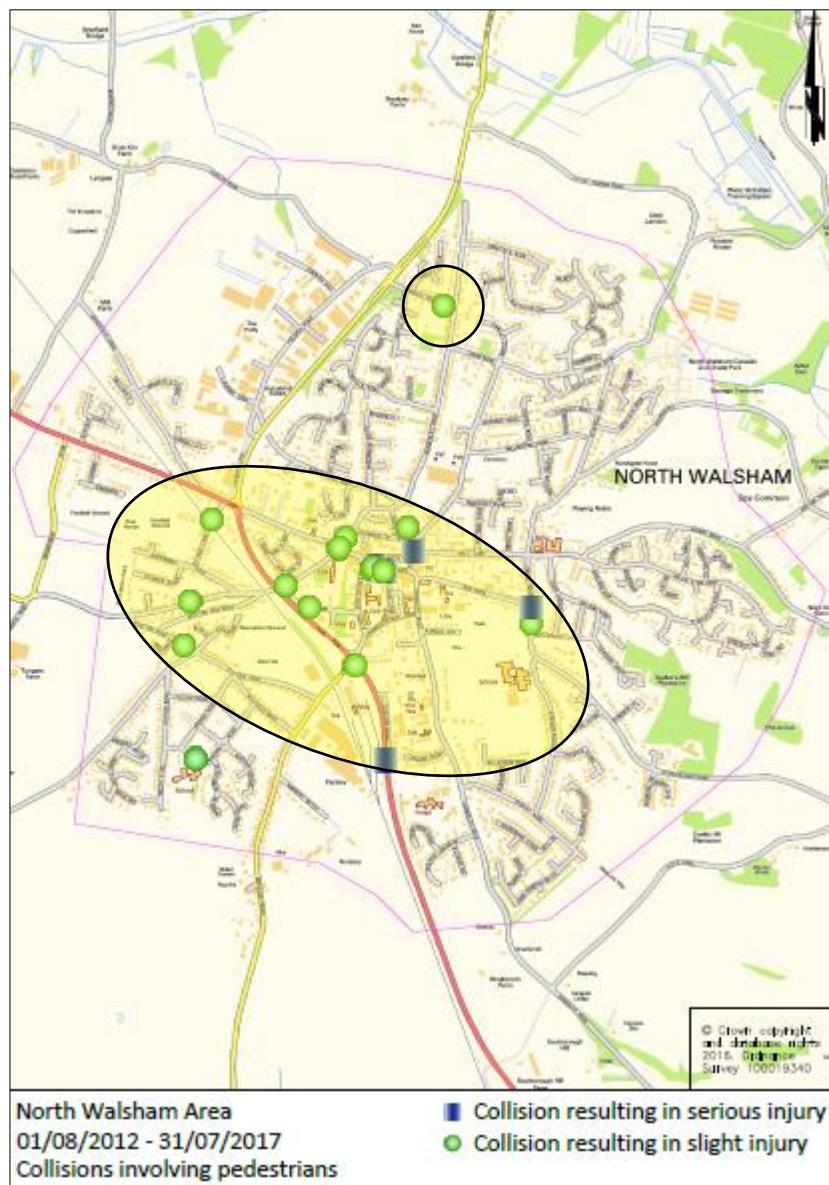
occurring on New Road. The low number of collisions and their location suggested this was not a key issue for the NIS.

Figure 3.2: Collisions involving motor vehicles



As expected, there are more collisions involving motor vehicles, but the amount is typical of a market town for this period of time. Whilst there is no single hotspot, collisions are concentrated along key routes in and out of the town and in the town centre. Two serious injury collisions occurred at the Lyngate Road/B1145 junction and the remaining serious injuries are in the eastern side of the town. Collisions resulting in slight injury are spread throughout the town: along the A149, the town centre and in residential areas to the east of the town.

Figure 3.3: Collisions involving pedestrians



There have been more collisions involving pedestrians than cyclists, but their locations follow a similar pattern, reflecting the areas where there is more pedestrian and cyclist activity.

In summary, the casualty data for North Walsham is typical for a market town. Areas where collisions have occurred more frequently are associated with areas where more activity would be expected: along the A149 and in the town centre. The analysis has not identified any exceptional issues for the NIS. The County Council will continue to monitor the issue.

Parking

The town centre is served by a number of sizable car parks within a short walking distance. There are four main car parks in North Walsham – Mundesley Road, Vicarage Street, New Road and Bank Loke and feedback from stakeholders indicates the town has sufficient car parking. Consequently, parking was not prioritised as issue for this strategy to explore at this time.

Congestion and Traffic

The AM and PM peak traffic speed maps below show areas of congestion in the morning along the junction of the A149 with the B1150 Norwich Road and at the Cromer Road/Mundesley Road junction close to the market place. The PM peak reflects a similar pattern to the AM with congestion again at the A149/B1150 junction and at Cromer Road/Mundesley Road junction. In the PM peak there is also congestion along Park Avenue which could be attributed to its proximity to North Walsham Junior and Infant School.

S106 obligations have been secured to contribute to improvements at the traffic signals at the A149/B1150 junction to help improve capacity. The Town Council consider that queueing is not reflected accurately in the maps and may have worsened recently (this is something that can be picked up outside this NIS).

The existing Cromer Road and Norwich Road bridges are low and constrain HGV access through and to the town, requiring high vehicles to divert via Aylsham Road along narrow, residential and town centre roads. It was determined that the Cromer Road bridge provides the most likely deliverable road lowering option for investigation.

Action: the NIS investigates the options for lowering Cromer Road under the bridge, or whether an alternative via the Bradfield Road bridge has potential.

Figure 3.4: North Walsham Traffic Speeds AM peak

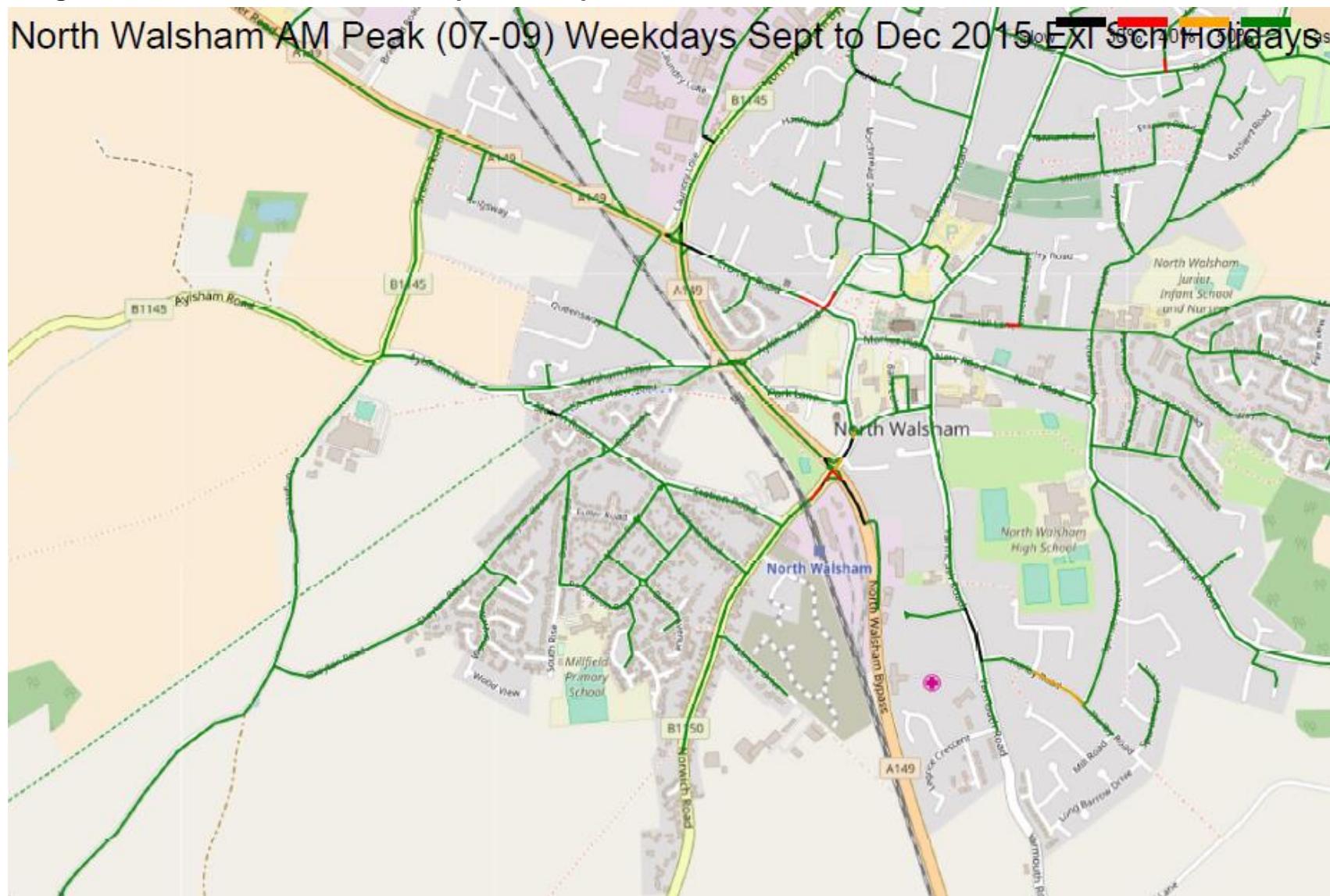
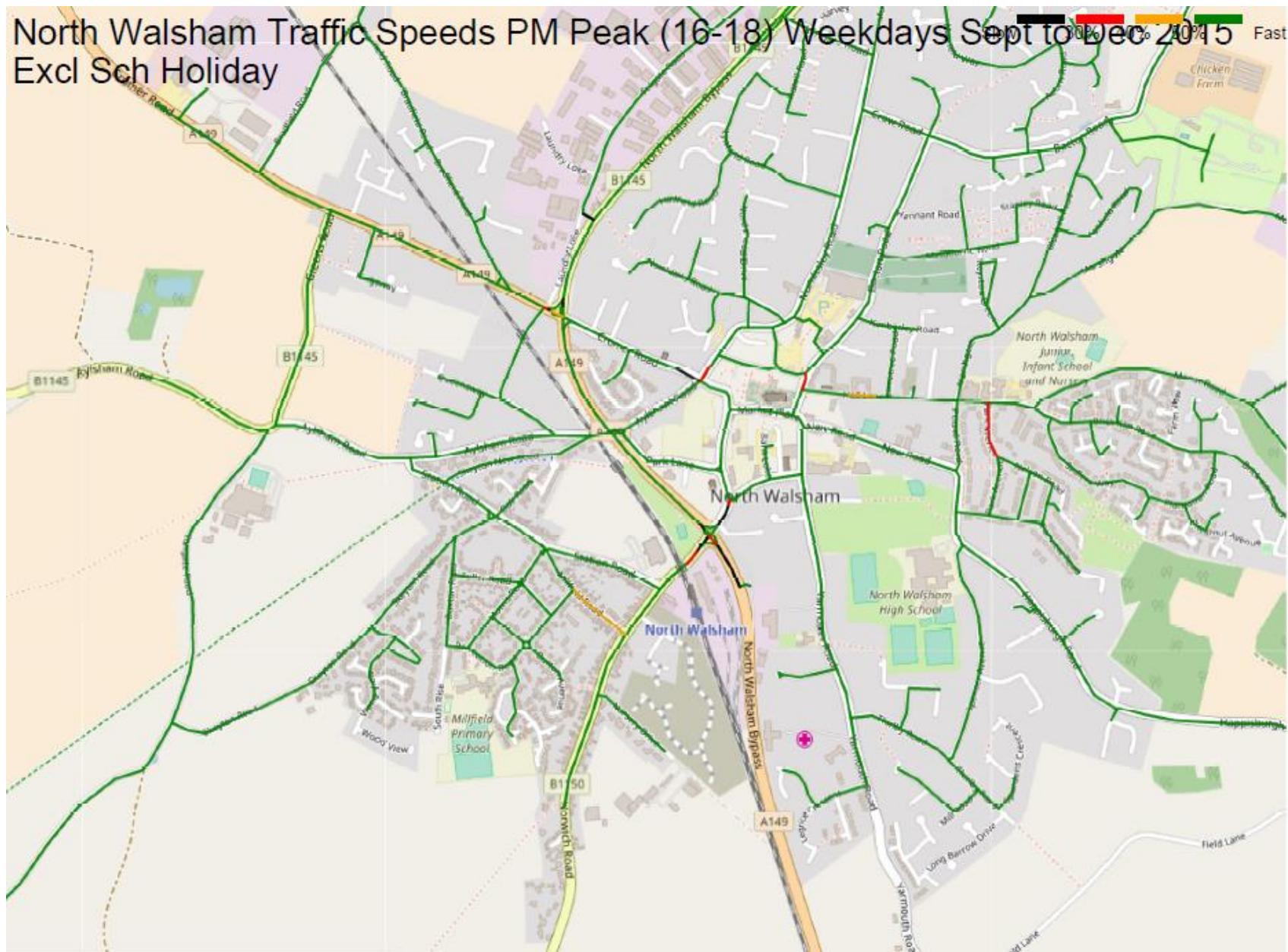


Figure 3.5: North Walsham Traffic Speeds PM peak



Access

The maps below show accessibility by bus within a 30 minutes journey time to key shopping points, employment areas and higher level education facilities. North Walsham is reasonably well served by day time buses with services connecting the town to Norwich within 30 minutes, to neighbouring market towns such as Aylsham and Stalham and to the coast. Bus accessibility is concentrated along key routes such as the A149 and B1150 but accessibility for surrounding villages is mixed.

Given the rural nature of Norfolk the levels of accessibility were not seen as a key issue for investigation, a key concern was apparent related by the location of bus stops in the town centre. In particular, resolving conflicts caused by buses waiting at the “interchange” on Yarmouth Road.

Action: Further work building on a previous study to examine the options for revised bus stopping arrangements in North Walsham town centre.

Figure 3.6: Bus Accessibility to key locations

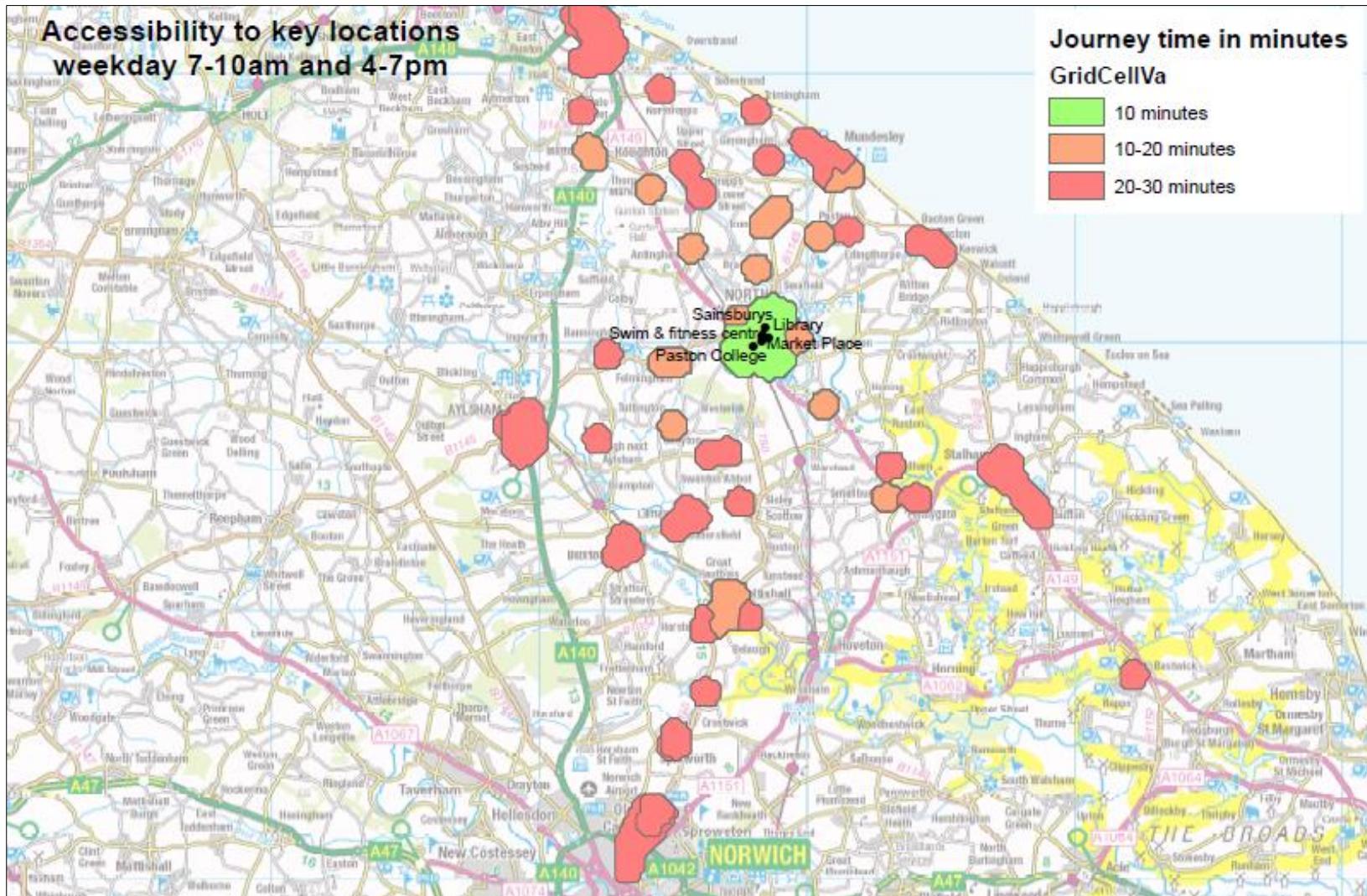


Figure 3.7: Bus Accessibility to employment sites

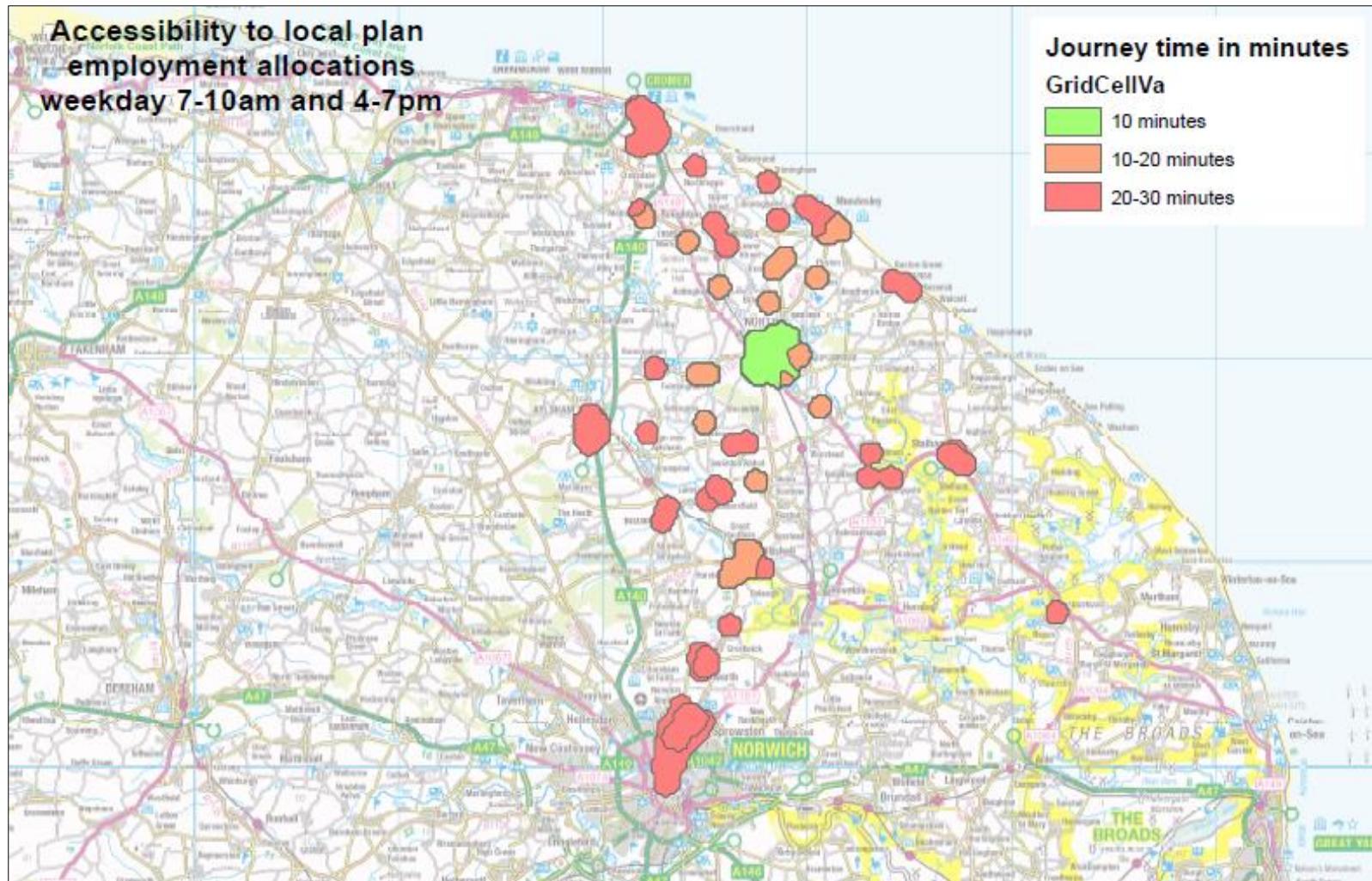
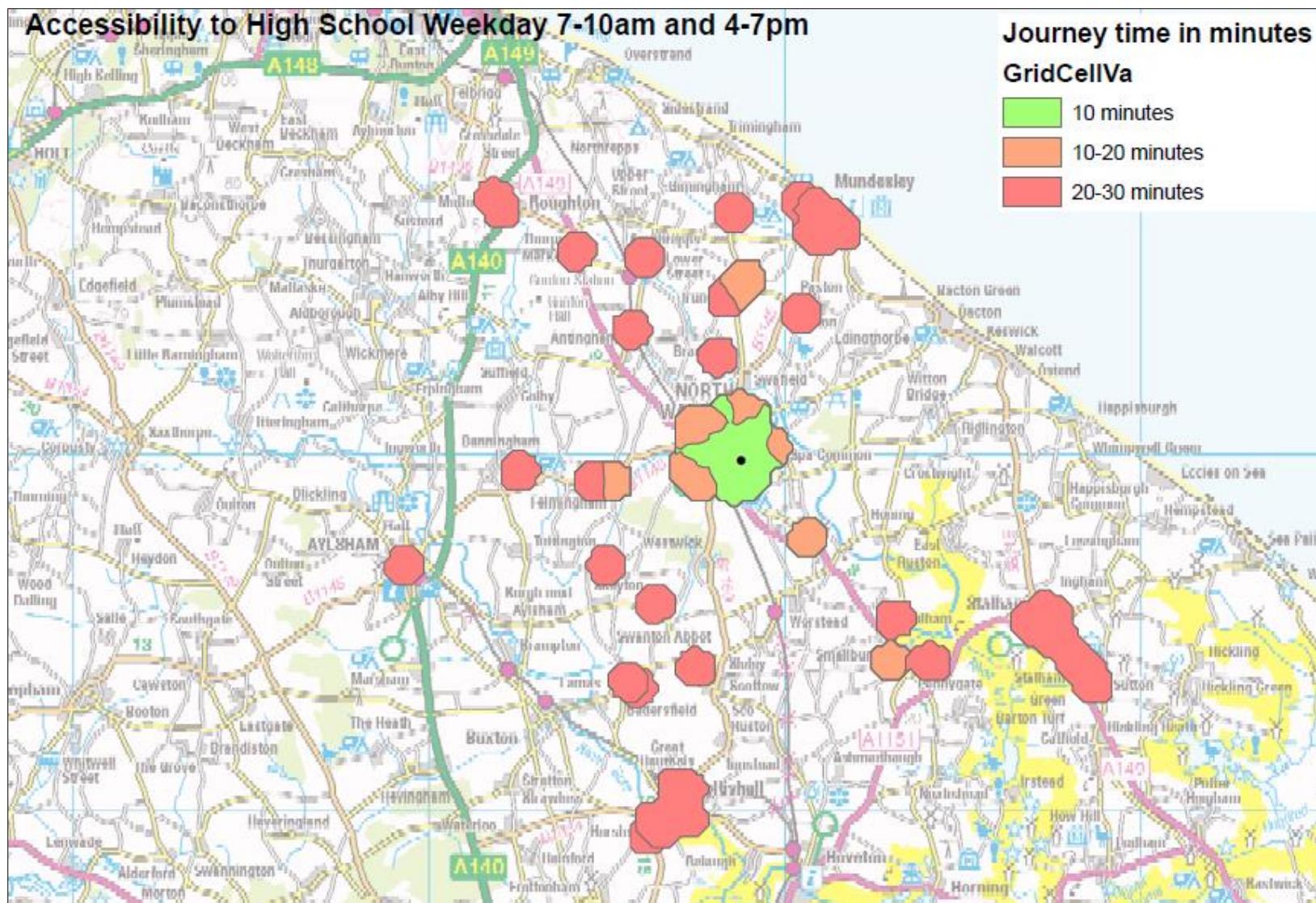


Figure 3.8: Bus Accessibility to higher education



Walking and Cycling

Pedestrian permeability is high in North Walsham town centre with narrow alleyways and one-way streets leading to open central areas. These alleyways are frequently used by locals but are not particularly evident or legible to visitors.

The footways within the town centre vary greatly in their width and quality for pedestrians and mobility vehicles, in some places no footway is provided. There is a conflict between traffic and non-motorised users crossing Market Place, due to the width of the carriageway area and lack of crossing points.

The town centre is constrained by narrow historic streets and there are pinch points in the existing road network particularly close to bus stops which result in traffic conditions unfavourable for cycling and walking. People shelter between the building at the entrance to St. Nicholas Church whilst waiting for the bus. The footway is currently unsuitable for the amount of people waiting and walking by, particularly with the frequency of mobility vehicles also sharing this footway space.

Weavers Way circular walk and Paston Way short walk pass through North Walsham. Sections of these walks cross farmland and then join up to the disused railway line. A sign near the Market Cross indicates the Weavers' Way cycle route which provides a recreational route from Cromer to Great Yarmouth. St. Nicholas churchyard also marks the start of the Paston Way walking route to Cromer.

Action: Consider town centre issues as part of place making.

Place Making

A competitive town centre needs to provide customer choice, a diverse offer and reflect its individuality. The quality of the public realm is a key element of a town's success.

North Norfolk District Council, as part its market town initiative allocated each of their market towns, a ring-fenced budget of up to £100,000 for the financial year 2018/19 to spend on locally owned and managed projects. In December 2018 Regenerate North Walsham and North Walsham Town Council were successful in bidding for £99,575 to implement three major improvement projects split between improving St Nicholas Court, the town centre and attracting more visitors to the town. Ultimately RNW and NWTC received a funding allocation from NNDC of £108k and the main work on improving the square at St Nicholas Precinct has been completed.

The current local plan seeks a vibrant town centre with a broader range of shops and services meeting the needs of a wide catchment and adding to the attractions of the town as a tourist destination. New development should enhance the historic market town character, aid regeneration, and meet community needs. The district council are currently in the early stages of producing a new Local Plan and will be considering further substantial growth in North Walsham.

Key issues identified through the external workshops included:

- Large retail developments encroaching on the historic core, detracting from its character
- Inconsistent shop-front styles and signage not reflecting the period buildings they feature on
- Loss of architectural details
- A need for consistent quality of street furniture and road surfaces
- Condition / maintenance of public spaces
- The need to re-consider pedestrianisation of the Market Place

Action: Commission further study work to undertake a place-making assessment of Market Place.

Intelligent Transport Systems

The Norfolk and Suffolk Integrated Transport Strategy has considered economic and technological changes including digital connectivity, autonomous vehicles and new forms of public and shared transport. The strategy sets out what transport could look like by 2030, 2040 and beyond:

2030:

- Digitally connected transport networks underway and digital connectivity improved across the region allowing people to access opportunities from home including reliable home and remote working
- Key pinch points addressed, network capacity improved and better operational regimes will boost network capacity and make journeys more reliable and resilient
- Agile transport solutions in our Priority Places and better access to information will lead to 'peak' travel spread and allow people to make informed and personal travel choices with more certainty

2040:

- Connected and autonomous cars, trucks and buses will be the norm, improving safety and contributing to the smooth running of the network
- Traditional bus service provision will have reduced but will be supplemented by on demand, responsive services that offer efficiencies
- The move away from fossil fuels will be largely complete supported by alternative generation and storage solutions with communities benefitting from associated air quality improvements

Beyond:

- Digital access to services (including health and social care) and opportunities (including education and training) will help people be more productive on the move
- Direct rail access between key centres with faster journey times and higher capacity, and local lines will have benefitted from more reliable rolling stock and improved customer experience
- New service models will reduce costs and provide new services for hard to reach communities and on-account, seamless, barrier-less payment technologies will facilitate Mobility as a Service (MaaS)

Any transport improvements for North Walsham will need to help future proof the town for these changes. Intelligent transport systems are already being used in North Walsham with traffic lights adjusted to move traffic more efficiently around the town.

Section 4: The future

North Norfolk are currently in the process of preparing a new Local Plan for the period to 2036. The emerging Local Plan includes a proposal for 1,800 homes to the west of the town with a link road between the Norwich Road and the Cromer Road. The Town Council consider that this western link road will remove high traffic from the town centre, discourage rat running of cars along Millfield/ Station Road and, with a new link road from Cromer Road into the industrial area, would encourage industrial investment.

The North Walsham area has historically had high levels of employment in agriculture, the defence sector, manufacturing (concentrated in North Walsham, Catfield and Hoveton) and Broads based tourism. There has been a decline in manufacturing but a growth in the plastics and boat building and marine engineering sectors. Lower land prices than in Norwich, and the opening of the Northern Distributor Road, could make North Walsham a more attractive location for economic investment.

The issues investigated through this NIS need to help deliver successful growth in the town.

Section 5: Matters for investigation

The assessment of transport issues in North Walsham, taking account of the need to target a limited budget, generated a list of three key objectives for the North Walsham Network Improvement Strategy:

- options for a more **pedestrian friendly** environment in the Market Place, to take account of bus stopping arrangements.
- the extent to which the **bus interchange** near the post office could be improved, taking account of any market place improvements, to include an assessment of alternative locations.
- the existing **low bridges under the railway line are a constraint**, and HGVs are diverted to an unsuitable route via Aylsham Road. Pre-feasibility work to understand how an improvement to the Cromer Road bridge might be progressed, to include an alternative route via the Bradfield Road bridge.

Section 6: Findings

North Walsham Placemaking Study (EXTRACT)

Please note the following section is an extract from a study commissioned to assess the potential for changes to the Market Place. Any scheme that may be taken forward will need further development and consultation.

Figure 6.1 Study area and context

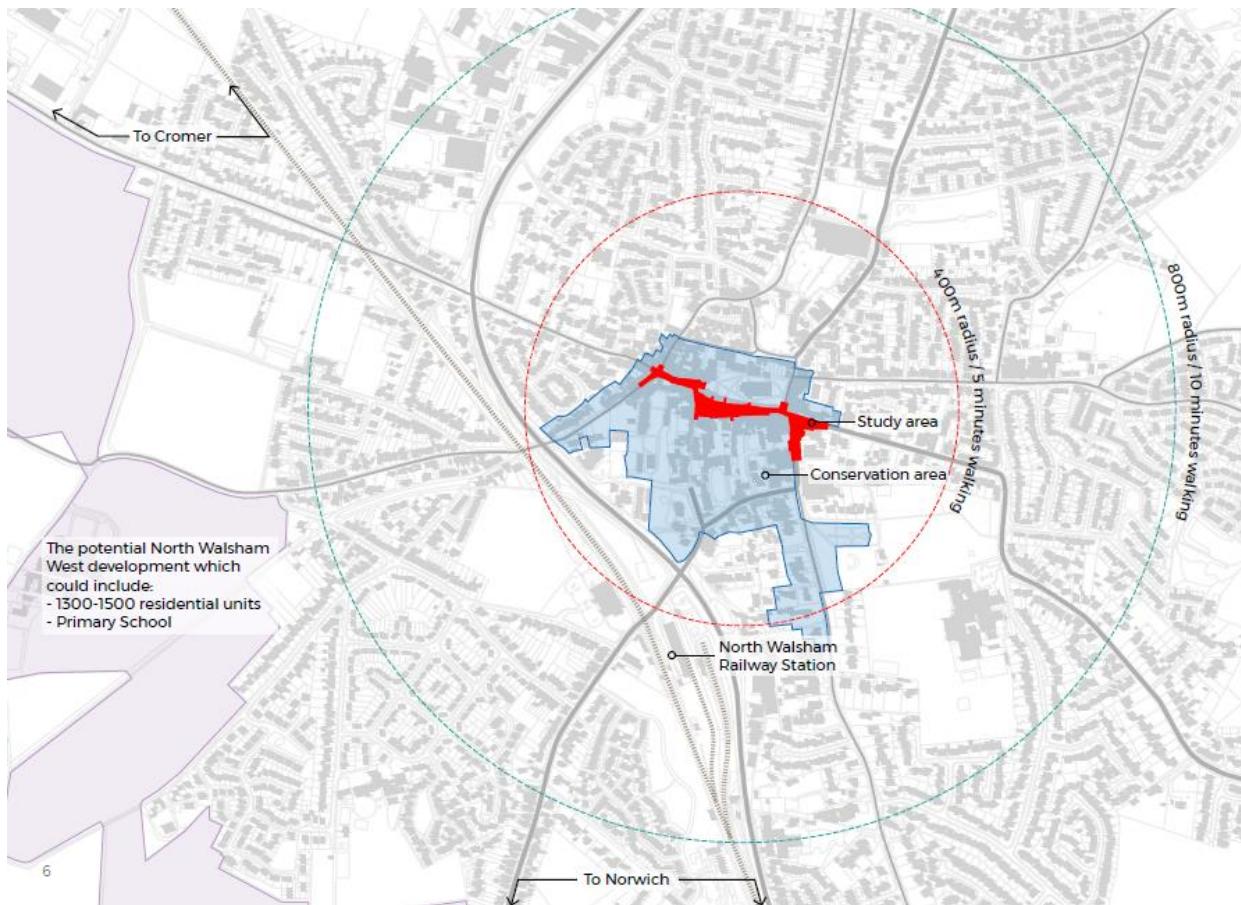


Figure 6.1 shows the study area focussing on the market place and town centre but also shows the conservation area highlighted in blue, which runs mainly to the south of the study area. It also shows the main transport connections to Cromer and Norwich via road and rail and the potential development to the west of the town.

Assessment criteria derived by industry expert organisations were applied. Figures 6.2 and 6.3 summarise the findings.

Figure 6.2 Design Council CABE / By Design: 'Objectives of Urban Design'

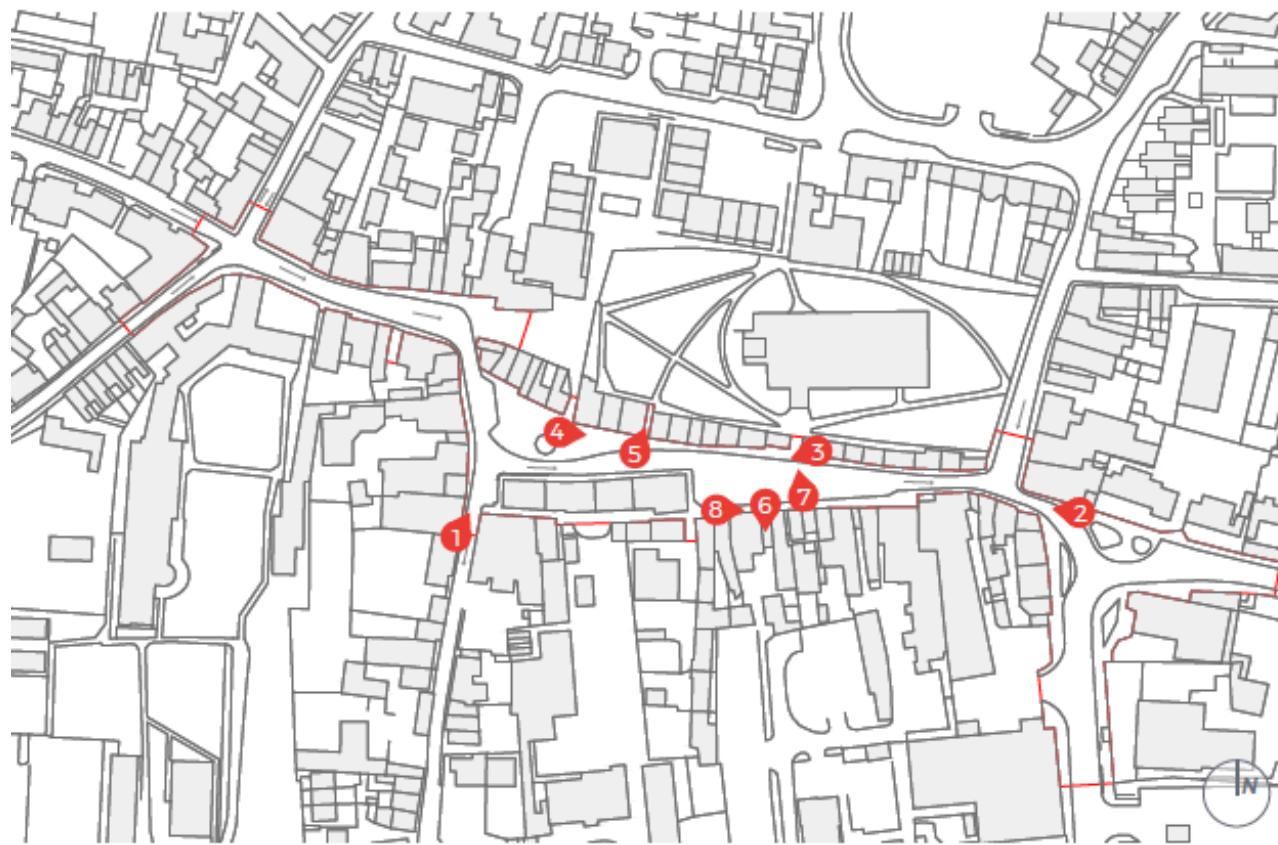
	Criteria	Observations
1	Character	Small bustling market town, busy one-way system through the centre and St. Nicholas Church peering over the centre. Many historic listed buildings and features present enhancing the character but set in a vehicle dominated street.
2	Continuity and enclosure	The town centre is a mixture of narrow alleyways, one-way streets leading to open central areas. Varying styles and materials contribute to the character and identity of the town and focus quality on the central area of Market Place.
3	Quality of public realm	The built form provides interesting frontages for shops and cafés but are situated in a vehicular dominated setting causing inadequate and inconsistent footways and crossings commonly around the town centre. The footways are often narrow or non-existent, and crossing often difficult in places.
4	Ease of movement	Market Place is permeable due to the alleyways connecting to it, although these are not particularly pleasant places for pedestrians due to their width and poor lighting. It is difficult for pedestrians to cross Market Place itself due to the width of the carriageway, excessive parking, and lack of crossings. The town has well located and frequent bus services which appear well used by all ages.
5	Legibility	The town has key features/landmarks to aid navigation including the Market Cross and St. Nicholas Church which is visible from afar over the town centre. There are various signs leading people to the town centre in the peripheral streets, and useful maps in car parks, but this could be improved within Market Place itself to present the pedestrian links and wider destinations better.
6	Adaptability	Whilst vehicular dominated on a 'normal day', Market Place facilitates a weekly market day which demonstrates the town's ability to adapt to a change in vehicular access/movement. The historic buildings are mostly successful in accommodating small independent businesses, as well as some well-known 'chain' shops whilst maintaining their unique qualities.
7	Diversity	Market Place features a rich offering of small scale shops and facilities for the town centre with larger supermarkets on the periphery including a butcher and greengrocer.

Figure 6.3 Projects for public space: 'What makes a great place?'

	Criteria	Observations
8	Sociability	The small scale of the town centre adds to its charm and identity, with a variety of shops and places for people to gather or meet. There is a diverse population, with youth from surrounding schools, young families, and elderly wandering the town centre during the weekdays. There are limited places to congregate and crossing is difficult on Market Place due to the vehicular dominance.

9	Uses and activities	The town centre is predominantly retail and residential, with the weekly Market Day creating a temporary key focal point and destination. Public transport links provide important connections to Market Place from the wider area for recreational activities.
10	Access and linkages	Pedestrians can easily access Market Place using the various alleyways connecting to it. Public transport is currently fairly well located with informative signage at each stop. Market Place itself is somewhat difficult to cross due to the width of the carriageway and parking (vehicular dominated) area detracting from the pedestrian experience. Cycling is possible in the town centre, although cycle stands are few and poorly located.
11	Comfort and image	There are small areas of higher quality materials at either end of Market Place, and a variety of footway materials around the town centre. There are a number of different materials used across the study areas, showing where quality has been focussed thus far, but visually causing confusion and detracting from the identity of the town. Signage directs people to public facilities and the Market Place from around the town centre. St. Nicholas Church can be seen from many places around the town centre offering a navigational landmark and visual feature above the town centre. There is disparity between the environment created by the street geometry in the Market Place area, and the considerably wider and more vehicular dominated ring road surrounding the town centre.

Figure 6.4 Map of photograph points demonstrating some of issues with the current environment



- Inconsistent footway
- Narrow footway
- Lack of crossing points
- Barriers to movement



- Inconsistent footway
- Narrow footway
- Lack of crossing points
- Poor gateway to Market Place



Insufficient footway space at bus stop for alighting and boarding
Lack of crossing points
Wide carriageway area to cross between the two sides of the street



Vehicles on footway
Cluttered footway; a-boards and posts
Lack of crossing points



- Illegible key pedestrian connection
- Appears dark, narrow, unsafe



- Lack of shelter for bus users
- No seating for bus users
- Poor gateway to St. Nicholas Church



- Poorly marked key pedestrian connection



- Vehicles encroaching on footway
- No permeability to cross the street
- Perception of vehicle dominance

Vehicular traffic

The Market Street, Cromer Road, Aylsham Road, and Mundesley Road intersection is a key vehicle gateway to Market Place.

Market Street features short stay parking bays, and a taxi rank along a wide stretch of carriageway. Various vehicle accesses to properties cross the footway on the southern side of Market Street. Narrowing as it bends south towards Market Place, Market Street offers a loading bay adjacent to the Market Cross.

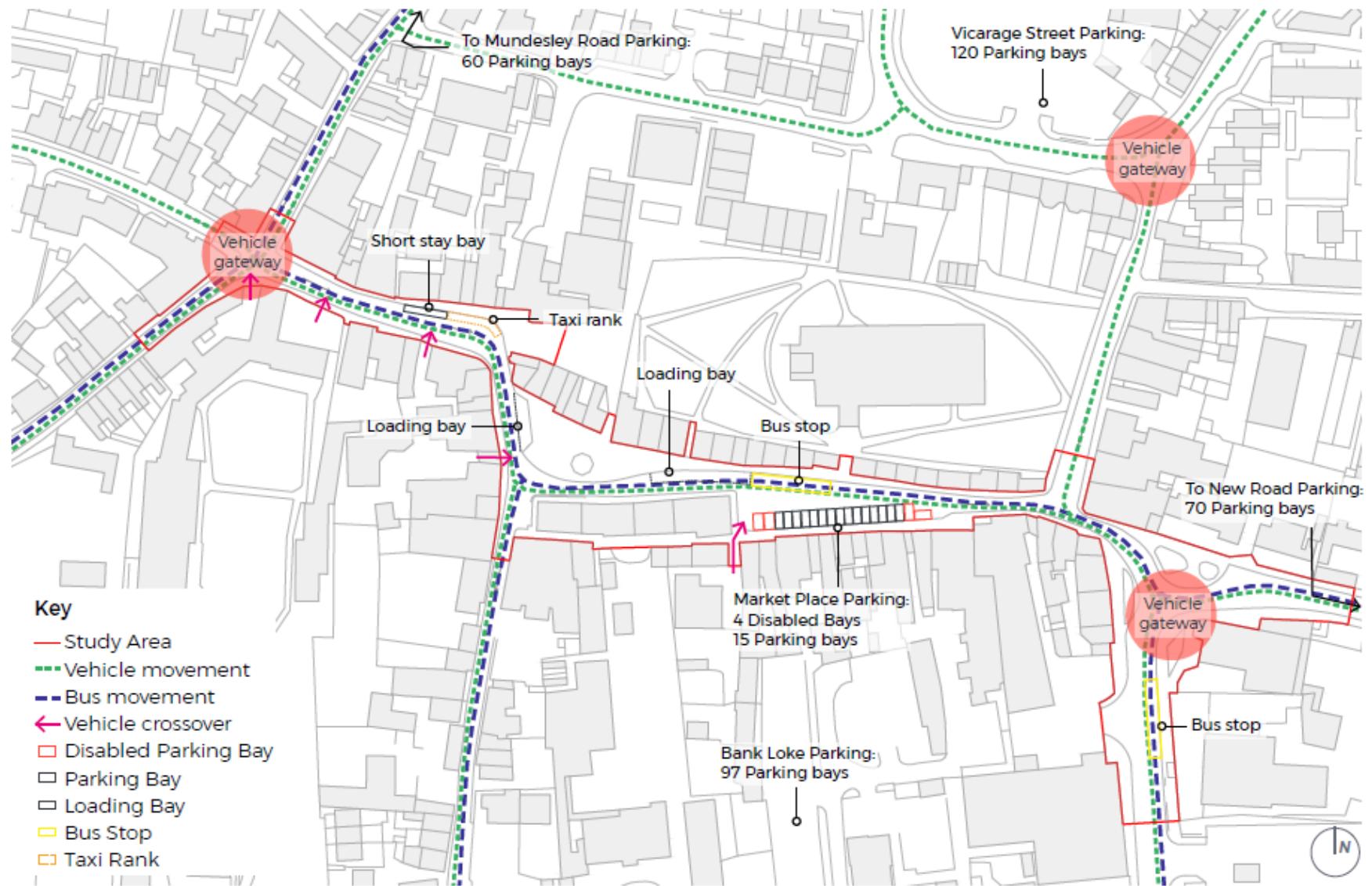
Market Place is predominantly a wide carriageway space, with a loading bay, bus stop, and parking spaces along the length of the shopping area - all of which are well used throughout the day.

There is currently a pattern of behaviour with vehicles waiting for a space to become available in the centre of the carriageway. The wide geometry of the street currently allows this to happen, to the detriment of pedestrians trying to cross the street.

There is a sense that Market Place is greatly vehicle dominated. There is no sense of order or control for the loading vehicles, which could operate outside of business hours.

Vehicular movement must adapt to the closure of Market Place every Thursday for Market Day, showing that it is possible. The town centre is served by several sizable car parks within a short walking distance, making the parking spaces on Market Place itself non-essential.

Figure 6.5 Map of Analysis: Vehicular Movement and circulation



Non-motorised users (NMUs)

The footways within the study area vary greatly in their width and quality for pedestrians and mobility vehicles, in some places with no footway provided.

Permeability to Market Place from the surrounding area is reasonably good due to the presence of a number of alleyway connections. These alleyways are frequently used by locals but are not particularly evident or legible to visitors.

Crossing Market Place is currently rather difficult for all non-motorised users, due to the width of the carriageway area and lack of crossing points. The bus service appears greatly used by people of all ages coming to and from North Walsham. The bus stop on Market Place itself is well used but lacks any form of shelter or seating for people.

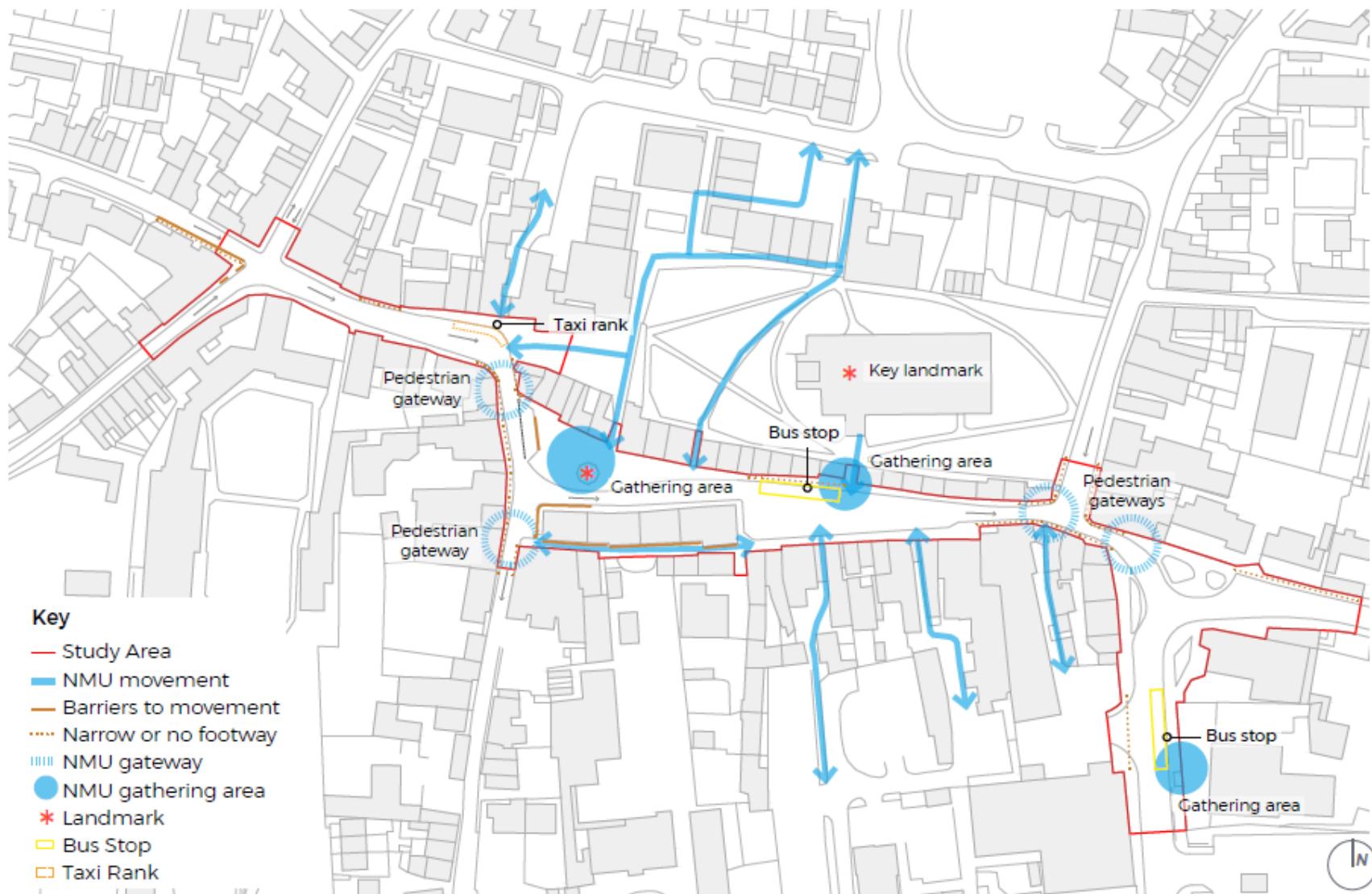
The footway is currently unsuitable for the amount of people waiting and walking by, particularly with the frequency of mobility vehicles also sharing this footway space. Generally, in the town centre there are insufficient places to shelter or stop and rest.

Yarmouth Road currently features a key bus stop for the town at which many services stop. The location of this main stop is not evident from Market Place, nor is Market Place announced upon arrival to the town at Yarmouth Road.

The taxi rank is reasonably well located currently, although there is no signage to direct people to it.

A sign near the Market Cross indicates the Weavers' Way cycle route which provides a recreational route from Cromer to Great Yarmouth. St. Nicholas churchyard also marks the start of the Paston Way walking route to Cromer.

6.6 Map of Analysis: Non-motorised users Movement and circulation



Street Furniture

There is a disparity between the types of street furniture used across Market Place and the surrounding area. Between the street furniture items, there are varying styles and levels of quality which do not all necessarily complement the conservation status of this area. There is an opportunity for a coherent palette to be implemented as part of any future place-making work, to align with the identity of this historic market town.

The town centre features an assortment of planter types, hanging baskets, and a couple of trees. The colourful floral and hanging species dotted around the town are primarily the work of local community group 'North Walsham in Bloom'. Species present around Market Place include begonias, geraniums, lobelias, fuchsias, and petunias and many more. The current offering of trees and planting provides periodic bursts of colour and visual interest at varying heights and locations in the town centre. The few trees present in the study are small in scale, and located near the taxi rank on Market Street, and at the junction of Market Place with Yarmouth Road. A more considered planting palette for the town would ensure low maintenance, and year-round visual interest.

Place-making options

North Walsham whilst being a quaint historic market town, has adapted over the years to have a vehicular dominated town centre. Market Place has the opportunity to be high quality pedestrian environment, enhancing the heritage assets of the town and continuing to thrive with the growing population and arrival of visitors. This study offers three options for improvement to Market Place, which reconfigure the traffic movement and street geometry to improve the street scene. Some enhancements are applicable to all options, such as additional crossing points.

1. Rationalisation

Maintaining current traffic flow and operation, with improvements to the street geometry to benefit the pedestrian experience.

2. Pedestrianisation

Removing traffic from Market Place to allow pedestrians to move freely between the shop frontages.

3. Bus and cycle only

Maximised footways only allowing buses access to reduce traffic flows through Market Place whilst maintaining accessibility.

Option 1

Option 1 retains the current operation of Market Place retaining the route for all traffic. The carriageway space currently consumed by parking has been rationalised to provide a reduced number of parallel short stay parking bays instead and maximise the footway. The reduced carriageway area makes crossing easier along the length of the street.

This option also features:

- Additional crossing points
- Raised tables for traffic calming
- Realignment of the carriageway to maximise footways on Market Place
- Review loading, taxi rank, and disabled bay arrangements
- Additional cycle parking
- Remove clutter and barriers to movement
- Parking to be either parallel bays (or echelon parking if considered essential) on Market Place
- Bus shelter with adequate seating at Market Place bus stop



Option 2

Option 2 removes vehicular movement between King's Arms Street and Church Street, providing a pleasant pedestrian environment along Market Place. This opens an adaptable central space in the town centre for markets and activities.

This option also includes:

- Pedestrianisation of Market Place
- Additional crossing points
- Some crossings may feature raised tables for traffic calming benefits
- Review bus stop, loading, taxi rank, and disabled bay arrangements
- Remove clutter and barriers to movement
- Additional cycle parking



Option 3

Option 3 featuring bus and cycle only offers the benefit of reduced vehicular traffic through Market Place, whilst maintaining the accessibility via public transport. The carriageway has been realigned to maximise the footway on both sides of Market Place, for improved bus stop facilities, enhanced pedestrian environment, and cafe frontages.

This option also includes:

- Additional crossing points
- Some crossings may feature raised tables for traffic calming benefits
- Realignment of central carriageway to maximise footway on both sides of Market Place
- Review loading, taxi rank, and disabled bay arrangements
- Remove clutter and barriers to movement
- Bus shelter with adequate seating at Market Place bus stop
- Market Place (area shown) to be bus and cycle only
- Additional cycle parking



Place Making Summary

Based on the assessment of the three options and the benefits they can bring to the functionality and experience of the town centre, Option 3 is considered to be the most appropriate. This option provides maximised pedestrian space for cafe overspill, tree planting, and seating providing places to meet and rest. The retention of the bus route and bus stop ensure that all demographics can still easily access the town centre, whilst reducing the volume of traffic on Market Place. Whilst pedestrianisation would also offer positive changes to Market Place, the reconfiguration of the bus service may not provide a very convenient service to locals, of which many are elderly or vulnerable. Some vehicular movement can offer activity and purpose to the street when markets or events are not in progress.

The place-making options presented in this report provide a high-level illustration of the opportunities for improvement in North Walsham's town centre. Further studies and work will need to be undertaken to progress this report.

Options will need to support the weekly market. If short term free parking spaces are lost consideration will need to be given as to how far these can be replaced nearby. Other considerations will include how a scheme can provide disabled parking places and maintain residential access.

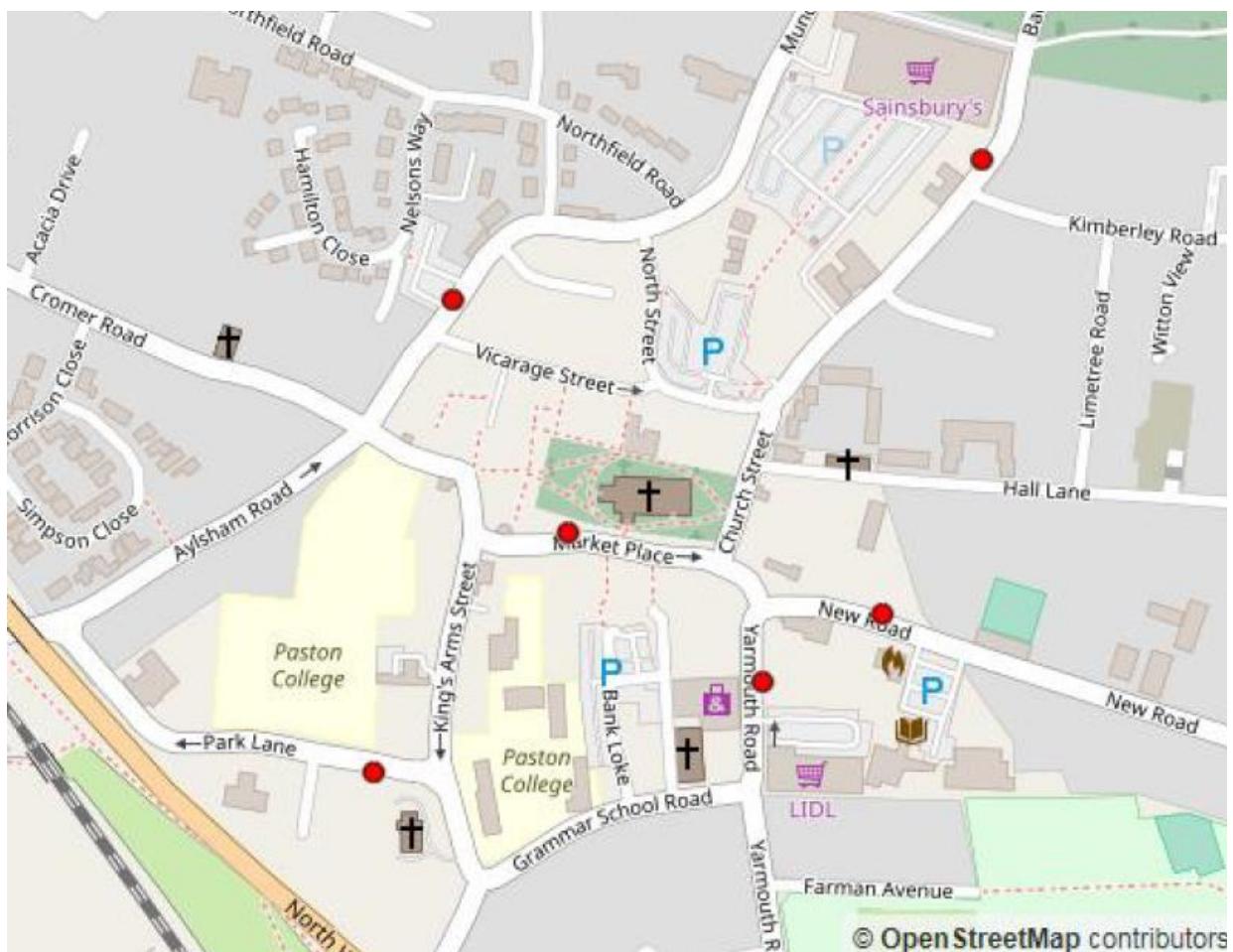
North Walsham Town Centre Bus Stopping Arrangements

Currently the following bus stops are served by the existing public bus services, according to the routes followed through the Town Centre:

- Market Place (adjacent to);
- Post Office (adjacent to);
- Library (opposite); and
- Park Lane (adjacent to).

Although a pair of bus stops is located on Mundesley Road and there is a further stop on Bacton Road, these are not observed to act as a main town centre focal point for passengers or a terminus for any route and therefore are not considered to have the same status for the network's operation as the stops listed above.

Figure 6.7 Town Centre Bus Stops



North Walsham acts a focal point for local bus routes. Although no multi-operator bus map is currently available, figure 6.8 lists the bus routes serving North Walsham Town Centre (summer timetable).

Figure 6.8 List of bus routes serving North Walsham Town Centre

Service	Operator	Route	Through Service or Terminates	Town Centre Stop
1A (Monday only)	Feline Travel	Worstead - North Walsham	Terminates	Post Office
2 (Tuesday and Thursday only)	Feline Travel	Aldborough - North Walsham	Terminates	Post Office
4 (Thursday only)	Feline Travel	Worstead - North Walsham	Terminates	Post Office
5/CH2	Sanders Coaches - Coasthopper	North Walsham - Cromer - Holt	Through	Arrives Market Place, departs Post Office
5A	Sanders Coaches	North Walsham - Norwich City Centre	Terminates	Market Place
6	Sanders Coaches	Great Yarmouth - North Walsham	Terminates	Arrives Post Office, departs Library
6A	Sanders Coaches	North Walsham - Cromer	Terminates	Arrives Market Place, departs Post Office
18	Sanders Coaches	Cromer - North Walsham	Terminates	Post Office
33	Our Bus	Cromer - North Walsham	Terminates	Post Office
33A	Our Bus	North Walsham - North Walsham	Terminates	Departs Market Place, arrives Post Office
34	Sanders Coaches	North Walsham - Stalham	Terminates	Arrives Park Lane, departs Library
55	Sanders Coaches	Norwich City Centre - North Walsham	Through	Has waiting time at Post Office on some journeys to Norwich

88	Sanders Coaches	Aylsham - North Walsham	Through	Arrives Market Place, departs Post Office
210	Sanders Coaches	Norwich City Centre - North Walsham	Terminates	Market Place
X55	Sanders Coaches	Norwich City Centre - North Walsham	Through	Has waiting time at Post Office on way to Norwich

Issues identified with the existing bus operations in the town centre:

- Given the limitations of the road network in the town centre, the diversionary bus routes which are implemented for market day are the best available, not necessarily the most desirable routes for passengers and operators;
- In bus patronage terms at least, the impact of market day is reduced compared to past years i.e. patronage is not as much different from any other day as it used to be; and
- Overall bus and coach movements (not all of which are public bus services) peak in the afternoon when High School pupils leave the town centre.

The main stops in the town centre, at the Market Place and Post Office, were analysed for scheduled bus departures on weekdays, for services which operate Mondays to Fridays. This assessment was carried out on the basis of the summer bus timetables; during the winter (mid-October to late April), the number of buses is reduced both overall and in terms of buses serving the stops at or close to the same time. In total, Market Place had 68 departures between 06:34 and 20:31 hours and the Post Office had 90 departures between 06:35 and 19:09 hours. Two measures were adopted to measure congestion for the analysis:

- Occasions when 2 buses are scheduled to depart at exactly the same time; and
- Occasions when 3 buses are scheduled to depart within a period of 5 minutes.

Although much less busy in total, Market Place has significantly more occasions when 2 buses are expected to be there simultaneously, while the Post Office is much more likely to have 3 buses trying to access the stop within a short period of time. Indeed, Market Place has 1 instance of 4 buses due to depart within 5 minutes, while the Post Office has 2 instances of such concentrated departures. In terms of impact on other traffic, Market Place is marginally better suited to 'bus congestion' as the straighter visibility and generally lower level of through traffic (e.g. HGVs) enables other traffic to manoeuvre around the buses better than at the Post Office, where the bend in the road, the pedestrian crossing and the junction with Market Place provide additional difficulties.

During the site visit, three buses were observed at the Post Office bus stop simultaneously, albeit due to late running these were not the planned three services,

with consequent impact on traffic flow and road safety risks arising from other traffic overtaking the buses.

Potential Alternative Arrangements

The new analysis has reviewed previous work that identified the potential to improve the existing stop on Yarmouth Road adjacent to the Post Office and identified an alternative at the Library Car Park. In addition, the potential of the Vicarage Road car park has been assessed.

Market Place is already closed to all traffic on Thursdays, with alternative arrangements made, albeit that no detailed information is currently provided at the Market Place bus stop to inform intending passengers of the specific revised routing and stopping arrangements for every service. While the removal of buses from the Market Place at all times would formalise the situation, which prevails on market day, namely that buses (and passengers) are redistributed across the other town centre bus stops, this approach is not considered to be positive for the interests of bus users.

Options for improving the operation and ‘feel’ of Market Place are explored in the parallel ‘North Walsham Place-making Study’, which has been coordinated with this work. That report recommends that making Market Place bus and cycle only is the most appropriate way to improve the functionality and experience of the town centre, and as part of that, the design of individual bus stops should also be improved.

In terms of alternative bus-stopping options for the town centre, consideration has been given to whether a new stop could be introduced on any other town centre road to optimise accessibility. To establish a suitable location for a town centre bus stop, a length of at least 14 metres of uninterrupted pavement is needed in a road which has sufficient width for other traffic to pass a stationary bus. From an inspection of King’s Arms Street, Grammar School Road, Yarmouth Road, Vicarage Street and Church Street, there is no location which is considered feasible to accommodate a parked bus safely and without causing an obstruction to other road users.

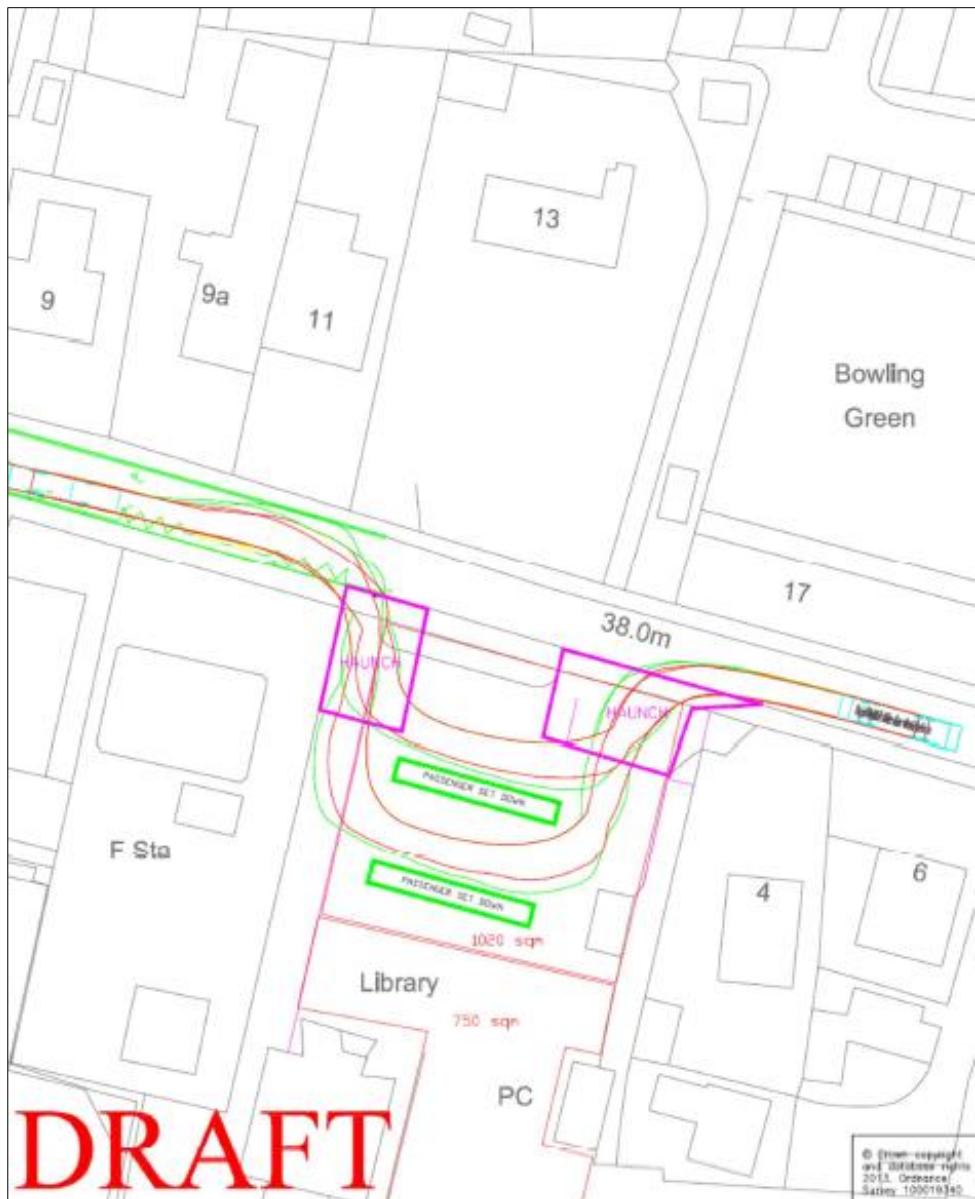
A more radical approach would be to consider whether a suitable off-road site could be found for all buses to serve as a local ‘transport hub’ or interchange.

Library car park

A previous “North Walsham Bus Interchange – Feasibility Study” identified the library car park on New Road as a potential location for off-road bus stops and in theory this has some logic in terms of locating the interchange point at a public amenity, on a road which is already served by several bus routes.

Around 40 of the 55 car parking spaces would be lost which may render the rest of the spaces unviable as a public car park, if indeed it was considered desirable to retain access for cars through the area provided for buses/bus stops.

Figure 6.9 Potential layout of Library car park as bus interchange (NCC)



Vicarage Street Car Park

Part of the Vicarage Street car park could be re-purposed to become a 'bus hub' where all buses would be routed to facilitate interchange between service. This shares the same drawbacks of deviation from existing routes, lack of active frontage to the town centre, need to use both lanes for certain turning movements and a communal entrance/exit. However, the larger area of the car park would enable a 'buffer' to be provided around the expected bus movement area to take account of the normal variation of bus movements according to factors such as the speed of approach, amount of steering wheel 'lock' applied and existence of other road users.

The equal proximity of Sainsbury's, the largest supermarket in the town centre, and the Market Place would make the Vicarage Street car park a feasible option for passengers, albeit that the primary pedestrian desire line to Market Place would be through the grounds of Saint Nicholas Church.

Three broad conceptual layouts have been given preliminary consideration, with the salient features of each being:

- Turning circle – buses use the existing entrance/exit and serve an additional bus stop within the car park;
- Linear route (diagonal) – buses utilise an additional access in the north-west corner (joining North Street). Two variations of this option have been considered – a one-way and a two-way option; and
- Right-angle route – buses utilise an additional access to the west side (joining North Street). Two variations of this option have been considered – a one-way and a two-way option.

For all options for Vicarage Street car park, the deviation from existing bus routes would be longer than for the Library car park and apply to all routes. From the Mundesley Road/Market Street/Aylsham Road/Cromer Road crossroads alone to the Vicarage Street car park and back again would take at least 3 minutes, and as such is sub-optimal for the operation of an efficient bus network. Each of the options would require the loss of a significant number of car parking spaces.

Summary of the results

The options of the Library and Vicarage Street car parks are not considered to be appropriate for further investigation as the locations are not assessed to be practical and attractive for bus routes or passengers.

For both the Library and Vicarage Street, there would be a loss of pay and display car park revenue to North Norfolk District Council as well as a reduction in the overall availability of car parking, which may generate unmet demand for spaces at peak times. While an off-highway interchange would generate wider benefits from the reduced dwell time of buses at the town centre bus stops, in addition to the better opportunity for passengers to change between bus services, the benefits arising to the bus operators from these positives are unlikely to outweigh the additional costs involved in serving the sites, particularly in the case of Vicarage Street.

For the Library car park, it would be necessary to use all the space right up to the boundary fence with the fire station, indicating that there is very little leeway from the tracked alignment. This would mean that all bus drivers would need to position their vehicles exactly on the line of the tracking for the whole movement, which is unachievable in reality. Therefore, while the space could technically accommodate a bus, any other buses which were longer or had a slightly wider turning circle would be unable to complete the movement. From this analysis it can also be concluded that the need to use the full width of the site for turning movements would create

conflict with pedestrians accessing the bus stops, any remaining parking spaces and the library.

Broader issues of the attractiveness of the town centre itself and potential highway changes to improve the bus passenger and pedestrian experience in Market Place are considered in the parallel 'North Walsham Place-making Study'. The recommended option from that report, to make Market Place bus and cycle only, presents the opportunity to reconfigure the existing bus stop in a way which supports and enhances the current level of bus services i.e. by providing for 2 buses simultaneously. Indeed, by making Market Place the focal point of town centre bus access and thereby maximising passenger boarding and alighting at that location, it would be possible to reduce the dwell time of buses at the Post Office, thus alleviating some of the current difficulties. This approach would also facilitate a discussion with bus operators about making changes to the stopping pattern of relevant services (but without otherwise altering the route) such that buses only call at Market Place, instead of both stops, as the level of passenger interchange between bus services at the Post Office was not observed to be significant and the distance between the 2 stops, at less than 200m, is a reasonable walking distance. An additional consideration would be that, depending on the details of an improvement, the Market Place bus stop may not available on Market Day and also on a limited number of other days when it is closed for other activities. This supports the need to improve the stops by the Post office.

While changing the alignment of the carriageway at the Post Office to create more space for other traffic to pass stationary buses would be beneficial to some degree (and is therefore worthy of further investigation in its own right), the maximum available space (for 2 buses) would still be likely to result in buses waiting in the carriageway on occasions, unless some other changes were made to bus routes and stopping arrangements. Also, in both design options for the Post Office presented in the previous work there was less space and no shelter for waiting passengers, which would have to be addressed to make the revised space function well for bus users.

Improvements to the function and appeal of the key bus stops in Market Place and by the Post Office are worthy of investment from the passenger perspective. Actions to be taken include:

- Enhanced boarding/alighting by means of a raised kerb;
- Formal bus shelter in Market Place; and
- Enhanced information, covering all operators.

Highway measures to improve the operation of the existing bus stops in terms of safety in relation to other road users appear warranted and should be investigated further, although any case for doing so should be informed by the actual risk profile, including recorded accidents.

The Town Council have raised a number of detail concerns about future bus stopping arrangements which will be considered before any detailed scheme is taken forward.

Cromer Road and Bradfield Road railway bridges

Pre-feasibility work was commissioned to assess the constraints and the likely scope of work for lowering the carriageway at Cromer Road Railway bridge. The aim of the proposed road lowering is to achieve a compliant headroom at the underpass and to remove the restriction on certain types of heavy goods vehicles that currently requires them to use other routes including via Aylsham Road.

Key findings of this work included:

- The existing railway bridge will require some structural modification which may include partial demolition of foundations, foundation underpinning and/or installation of ground anchors to abutments.
- Additional earth work retaining structures will be necessary to ensure stability of the wing walls, slope stability of adjacent grounds and prevent seepage of groundwater.
- The vertical gradients on the approach to the bridge will increase to 5% which has a significant adverse impact on the existing infrastructure, adjacent housing, existing drainage, nearby junctions and likely existing utilities. The protection and/or diversion of affected utilities could have a significant impact on the cost of delivering the scheme.
- Speed restrictions on trains and track monitoring are likely to be necessary during the construction works to ensure safety.
- Land take outside the highway boundary will be required to accommodate the level differences at the edge of the adjacent private properties.
- A pumping station with attenuation tank might be required to drain the surface water.
- Constrained by the bridge abutments, a carriageway width compliant to TD27/05 at the underpass cannot be achieved. Departures from standard will have to be applied and a give way or traffic signals arrangement is recommended to ensure wider vehicles can safely cross each other.

Conclusion on Cromer Road bridge

This initial study has been undertaken based on limited available information. The assessments are based on engineering judgements and assumptions and are subject to confirmation. However, it can be concluded that further detailed assessment would be costly and may be abortive as any scheme that may be devised from that work, even if practical, would be very expensive and disruptive.

Bradfield Road Assessment

As an alternative to lowering the road under the Cromer Road bridge, pre-feasibility work was commissioned to assess the constraints associated with upgrading Bradfield Road and Lyngate Road for the use of Heavy Good Vehicles (HGVs), and

to identify the likely scope and modifications required to both country lanes to accommodate this.

To provide a bare minimum upgrade for an HGV route via the Bradfield Road and Lyngate Road would require the widening and upgrading of approximately 1.2 miles of existing roads. The carriageway must be 3.7m wide with minimum 1.5m verges either side, and passing places provided at a maximum spacing of 200m. The junctions must undergo modifications and increase in size to accommodate the HGV movements.

Furthermore, work may be required to upgrade the existing structure to accommodate HGV traffic. The report outlines a significant amount of additional work that will be required to investigate this option further. At this stage, the analysis has not looked at the alternative of a new road alignment and/or new overbridge. To take this work forward it will be necessary to investigate these options

In the context of the emerging Local Plan's aspirations for residential and mixed-use development in the area, the expected HGV traffic on the proposed route and the surrounding network is likely to increase. More satisfactory options should consider a complete reconstruction of the existing Bradfield Road and Lyngate Road which will need to be widened to 9.3m. Should a give-way layout not be acceptable this will include the widening or the reconstruction of the bridge to achieve this width. Another option will be to consider the construction of a new 9.3m road at an alternative location in order to achieve the same benefit. Therefore, it is recommended that further options are reviewed and preliminary design study is carried out once the additional information and surveys associated with the Local Plan proposals are completed.

