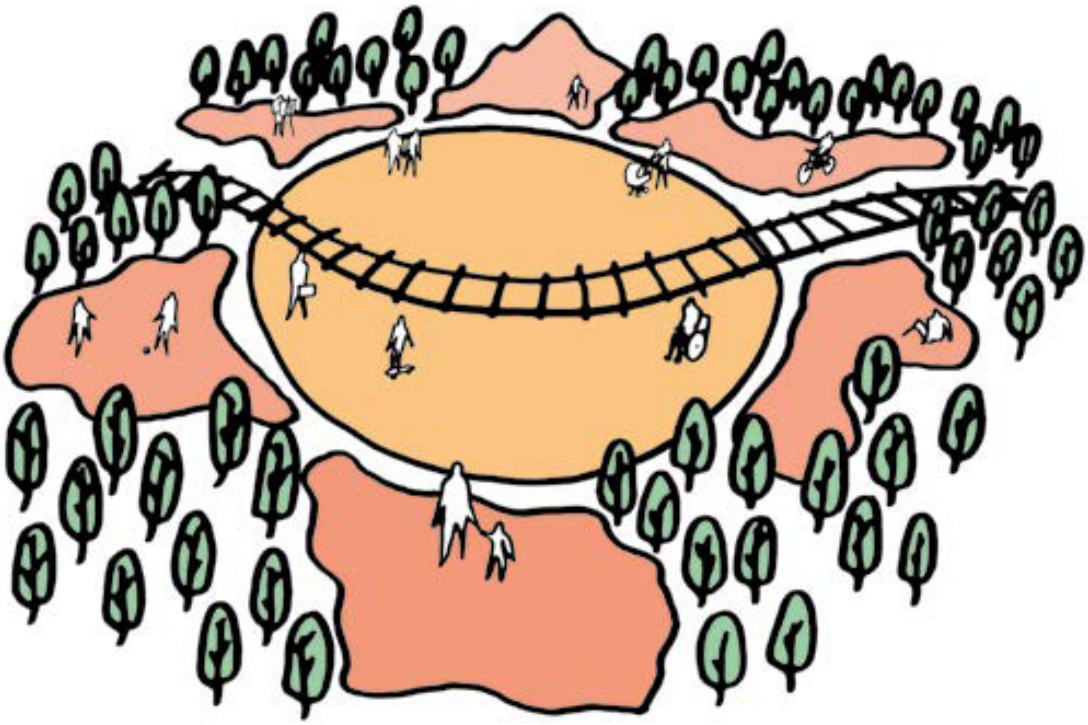
Harrogate District LOCAL PLAN

New Settlement (Maltkiln) Development Plan Document (DPD)



Submission Draft

Access and Movement Background Paper

February 2024

NORTH YORKSHIRE COUNCIL

Contents

Introduction

Introduction

1.1 This paper was been produced by Harrogate Borough Council (HBC) for the Regulation 19 consultation to provide transport evidence to support the creation of a new settlement 'Maltkiln', in the Green Hammerton/Cattal area of the district, to the east of the A1(M).

1.2 On the 1 April 2023 North Yorkshire Council (NYC) was formed which assumed responsibility for administrating the area previously administrated by North Yorkshire County Council and the district councils of Harrogate, Craven, Hambleton, Richmondshire, Ryedale, Scarborough and Selby. The paper has been updated following comments received from the Highways department.

1.3 The principle of a new settlement was set out in the Harrogate District Local Plan (adopted in March 2020).

1.4 The Local Plan sets out that a Development Plan Document will be prepared to guide the delivery of a successful and distinctive new settlement that offers a high quality of life and enables the development of a mixed community. The new settlement will include a minimum of 3,000 new dwellings and five hectares of employment land together with local services and facilities, extensive green infrastructure, opportunities for leisure and recreation, and good access to public transport.

1.5 The document includes a summary of the following:

- Policy context;
- Overview of the current situation;
- Proposed Transport Network Improvements;
- Overview of changing travel habits and trends;
- Approach to transport in the new settlement.

2 Policy Context

Policy Context

2.1 This section summarises the relevant overarching policy documents covering the national, regional (North Yorkshire) and local (Harrogate District) context.

National Policy Context

2.2 National policy and strategies set out the opportunities, that improvements to transport infrastructure can have, to make a positive contribution to supporting economic growth and bringing about environmental benefits. National policies form the basis for policies developed at regional and local levels. A summary of key and relevant national policies is set out below.

Department for Transport: Decarbonising Transport A Better, Greener Britain

2.3 The transport decarbonisation plan was published in July 2021 and sets out the government's commitments and the actions needed to decarbonise the entire transport system in the UK.

2.4 Within the plan, ambitions are highlighted for increasing walking and cycling, and influencing behaviour patterns of individual communities to encourage lower carbon choices. This includes reference to planning reforms and the importance of planning for sustainable transport to support sustainable growth, such as planning for new development around existing transport hubs. The plan also highlights the importance for all developments to be easily and safely accessible and navigable by active travel modes to promote the principles of a 20 minute neighbourhood.

Department for Transport Local Transport White Paper "Creating Growth. Cutting Carbon: Making Sustainable Local Transport Happen" (DfT, 2011)

2.5 The White Paper acknowledges that transport provision is essential for economic growth and highlights a vision "…*for a transport system that is an engine for economic growth, but one that is also greener and safer and improves quality of life in our communities*". Ultimately, the aspiration is to achieve this by improving the links that help move people and goods around, and also by targeting investment in new projects that promote 'green' growth. This can be achieved through new construction projects, improvements in pre-existing infrastructure and the promotion of alternative forms of travel.

2.6 The paper also highlights that the current levels of carbon emissions need to be addressed if the nation is to meet its national commitments on climate change, as well as creating a safer and cleaner environment in which to live. Sustainable transport is seen as being key to facilitate growth whilst also having a positive impact on the local environment.

2.7 Investment to improve infrastructure and to help people make transport choices that are good for society as a whole is required. Encouraging use of sustainable transport by providing options that, at the local level, are developed for the places they serve and the specific needs of those located there is seen as key to achieve a shift towards sustainable transport mode use.

National Planning Policy Framework (NPPF), Department for Communities and Local Government (Updated in 2021)

2.8 The NPPF, which was updated in July 2021, sets out the Government's planning policies and how these are expected to be applied. Achievement of sustainable development is a key theme within the NPPF and it seeks to encourage development of transport solutions that support reductions in congestion and greenhouse gas emissions.

2.9 The NPPF also outlines that new developments should promote sustainable transport, taking opportunities to promote walking, cycling and public transport. A hierarchy of users is also set out that states developments should *"give priority first to pedestrian and cycle movements, both within the scheme and with neighbouring areas; and second – so far as possible – to facilitating access to high quality public transport, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use".*

Regional and Local Policy and Strategy

2.10 Regional and local transport policy typically relates to targeted transport enhancements designed to address social, health and environmental issues. This includes a focus on the benefits to the economy by enhancing access to jobs, training and services. In many cases there is an emphasis on improving integration between land-use planning and transport, to support more sustainable patterns of travel and reinforce the case for targeted enhancements to the transport network. Regional and local policy, relevant to this study, is discussed below.

North Yorkshire Local Transport Plan (LTP) 2016 – 2045

2.11 The North Yorkshire LTP4, published in autumn 2015, sets out NYCC's priorities, plans and strategies for managing, maintaining and improving all aspects of the local transport system in North Yorkshire between up to 2045. On the 1 April 2023 North Yorkshire Council was formed, a new North Yorkshire Local Transport Plan is in development timescale of which will be released in due course.

2.12 LTP4's vision is for "*North Yorkshire to be a thriving county which adapts to a changing world and remains a special place for everyone to live, work and visit*." The main objectives include:

- Economic Growth - contributing to economic growth by delivering reliable and efficient transport networks and services;
- Road Safety - improving road and transport safety;
- Access to Services - improving equality of opportunity by facilitating access to services;
- Environment and Climate Change - managing the adverse impact of transport on the environment; and
- Healthier Travel - promoting healthier travel opportunities.

2.13 Transport is essential to the health of the economy and NYCC recognises that it needs to ensure that its transport network and services are as reliable and efficient as possible, both to support the existing economy and to help facilitate future economic growth. In particular, NYCC has committed to prioritise highway maintenance, tackling congestion and addressing the impacts of peripherality.

North Yorkshire Bus Service Improvement Plan (BSIP)

2.14 Both York and North Yorkshire have a BSIP with York receiving BSIP funding initially. After the initial announcement further funding was announced with some funding allocated to North Yorkshire.

A Strategic Transport Prospectus for North Yorkshire (2015)

2.15 In 2015 NYCC published a Transport Prospectus for North Yorkshire, outlining how they intend to work with the government, TfN and the Northern City Regions to ensure that improved transport connections allow North Yorkshire to both contribute to, and share in, the economic benefits of the Northern Powerhouse. The Prospectus sets out a number of initiatives for improvements to the County's transport network by 2030.

2 Policy Context

2.16 The Strategic Transport Prospectus reiterates the LTP4, in that north-south transport links are generally considered to be good but improvements to east-west connectivity across the county is required in particular along the A59.

Harrogate Borough Council – Harrogate District Local Plan (Adopted March 2020)

2.17 The Harrogate District Local Plan, which was adopted in March 2020, covers the period to 2035 and sets out a vision for continued economic growth resulting in a more diverse and resilient economy as well as having new housing and employment development that has enabled and encouraged significant investment in the district's transport system. This includes supporting and improving bus services, providing improvements on the Harrogate rail line as well as greater opportunities to make journeys safely on foot or by bike.

2.18 This Vision links to the following key objectives:

- Focus housing and employment development in locations which are, or can be made, sustainable;
- Enable greater opportunities to travel on foot and by bike, and support increased access to public transport as well as improvements to the quality and frequency of services.
- Deliver additional market and affordable housing in sizes, types and tenures, and at a scale that meets locally identified needs.
- Support business, enterprise, and job creation in order to achieve a sustainable and diverse economy throughout the district.
- Deliver infrastructure to accommodate and support new housing and employment sites, and seek ways for new development to contribute to reducing existing congestion.
- Facilitate the delivery of the infrastructure necessary to support a flourishing local economy, reduce the impacts of transport on the environment and communities, and enable reliable journeys between key centres regionally, nationally and internationally.

2.19 The Plan references NYCC's long term vision for improving transport in North Yorkshire in order to contribute towards a thriving economy. Improving east-west connectivity, access to high speed and conventional rail, and long distance connectivity to the north and south are noted as key priorities for this. It also details a number of key sustainable transport proposals, noting that they are *"particularly relevant to the creation of a sustainable transport system in Harrogate district"*. These included improvements to the Leeds-Harrogate-York Railway, undertaking a congestion study and provision of sustainable and healthy transport measures.

Harrogate Borough Council Economic Growth Strategy for the Harrogate District (2017 – 2035)

2.20 HBC's Economic Growth Strategy sets out the need for change in relation to the weaknesses in the district's economy which are restricting business expansion, limiting opportunities for inward investment and preventing sustainable economic growth.

2.21 The aim of the Strategy is to prioritise and support 'good growth' in order to achieve a sustainable and resilient economy by 2035; this is defined as featuring higher value jobs, an increase in GVA and a boost in average workplace wages. Success will be characterised by:

- An increase in higher value jobs and higher average workplace wages;
- Less commuting out of the district;
- More working age people able to afford to live in the district;
- A good supply of quality employment space in the right locations, encouraging business growth and inward investment;
- Good transport infrastructure to support business growth;

- Increases in productivity and GVA; and
- A reputation as a great business location.

2.22 A number of strategic themes have been determined including 'Creating the right conditions for growth; digital, telecoms, transport and quality of place', emphasising the importance of good transport links to a strong and stable economy.

City of York – Local Transport Plan 2011-2031

2.23 The City of York Local Transport Plan covers the period from 2011 - 2031, setting out the transport policies and measures that will contribute to the city's economic prosperity over a period of 20 years, whilst meeting challenging national and local targets for reducing emissions.

2.24 It is expected that there will be a significant growth in jobs and housing in the coming years. York's population will also change, with an ageing and more dependent demographic within the city. This will increase the pressures on the transport network, which could lead to current levels of delay increasing, contributing to more emissions of greenhouse gases and pollutants that affect air quality in some areas of the city.

2.25 The vision within the LTP is essentially to enable everyone to undertake their activities in the most sustainable way. This includes seeking to address climate change and air quality issues, provision of equal access opportunities for employment and other social value opportunities. It notes that the key issues for the city such as prosperity, quality of life, air quality, congestion and road safety will be addressed through the following five core themes that are set out in the strategy, which are:

- Providing Quality Alternatives;
- Improving Strategic Links;
- Encouraging Behavioural Change;
- Tackling Transport Emissions;
- Enhancing Public Streets and Space.

Summary of Policy Context

- The relevant policies and strategies highlight the need to proactively support sustainable economic development with provision of viable and appropriate infrastructure.
- There is recognition of the strong relationship between transport, the economy and the environment. As such improvements to the transport network are important and there is a significant emphasis on promotion of sustainable and low carbon solutions.
- High level policy and strategies clearly indicate the need to address issues relating to climate change, place making, air quality and health. Transport has a key role to play in achieving this and to ensure sustainable growth.
- Sustainable economic development and the vitality of town centre aspirations are underpinned by appropriate travel options for existing commuting journeys and new developments.

3 Overview of the Current Situation

Overview of the Current Situation

3.1 This section of the report sets out the current transport situation covering the location of the proposed new settlement. This draws on evidence collated through various studies undertaken for transport schemes in the Harrogate district.

Harrogate District and Cattal Area Overview

3.2 This section provides a summary of the demographics and travel to work situation in the Harrogate district area and Medium Super Output Area (MSOA) that covers the area where the new settlement is proposed – Illustrated in Figure 1, based on 2011 census data.

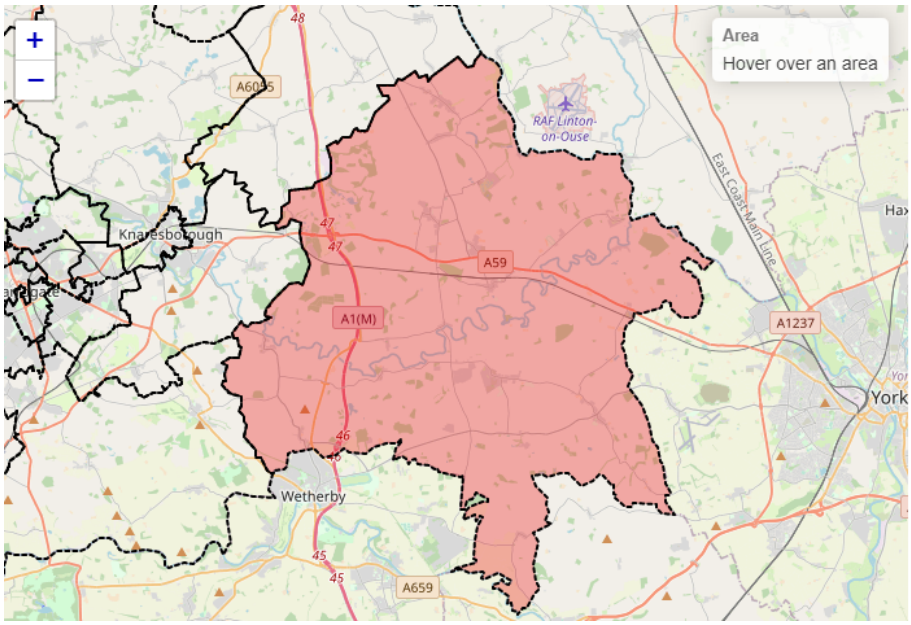


Figure 1: Method of travel to work

(Source: Nomis Census data - QS701EW - Method of travel to work)

3.3 The age profile of the Harrogate district, as recorded in the 2011 census data, reveals an ageing population with around 24% aged 65 years or over compared to a national average of 19%. Accordingly, 26% of those living in the Harrogate district are aged 24 years or under, compared with a national average of 30%. The age profile of the MSOA, proportionally, shows a slightly younger demographic when compared with the district as a whole, with 36% aged under 25 compared with the district average of 26%. The population within the MSOA had lower proportions in the 25-49 and 65+ age bracket, when compared with the district average.

3.4 The ageing population profile can have a detrimental effect on the local economy, and subsequently on local economic growth, due to the reduced proportion of people in active employment; it can also result in an increase in demand for healthcare services, and impact on the affordability of living. The low proportion of young people can indicate a potential lack of opportunities, in terms of education and employment, which may result in net out migration.

3.5 Across the Harrogate district, according to the 2011 census data, 16% of households have no access to a car or van, compared with 26% nationally. Similarly 84% of households have one or more cars or vans compared with 74% nationally. This is likely due to the relatively rural nature of the district however, it does demonstrate an overreliance on private vehicles.

3.6 In terms of earnings, Harrogate's residents have the highest average (median) full-time earnings, within North Yorkshire, however it also has the highest Housing Affordability Ratio (which at 10.2 in 2020 is significantly higher than the national average of 7.8 [1]). This means that, whilst annual gross earnings are relatively high, the cost of housing outweighs the earnings. This disparity between earnings and house prices indicates that the cost of living in Harrogate is high, and that many people who work in lower paid jobs in the district may have to commute from elsewhere, rather than living and working in the same area.

3.7 When looking at travel patterns the 2011 Census data shows that the majority (71%) of those living in the Harrogate district, and in employment, live and work in the Harrogate district. There is also a relatively high percentage (13%) of Harrogate district residents employed in the Leeds district. In terms of those working in Harrogate a similar proportion (70%) of those working in the district are also living there, with the next highest proportion being 9% living in Leeds but working in Harrogate further illustrating a relatively strong commuter relationship to the south of the Harrogate district. Relatively small proportions of those employed travel to other neighbouring districts, most notably Hambleton and York (both 3%).

3.8 In terms of where people work in MSOA Harrogate 016, the largest proportion of the working population work in the Harrogate district (43%), however relatively large proportions travel to work in Leeds (24%) and York (14%). This potentially illustrates a lack of employment opportunities in this area with the overall majority of residents having to travel outside of the district to find employment.

3.9 In terms of transport modal share for commuter trips of residents, Table 1, provides a comparison of the relative proportions of mode share for the area where the new settlement is proposed, the built-up area of Harrogate and Knaresborough, the Harrogate district, North Yorkshire county and national averages.

Method of Travel to Work	New Settlement area (Harrogate 016)%	Harrogate and Knaresborough Built-up-area %	Harrogate District %	North Yorkshire %	England %
Work mainly at or from home	14%	6%	9%	8%	5%
Underground, metro, light rail, tram	0%	0%	0%	0%	4%
Train	2%	3%	2%	2%	5%
Bus, minibus or coach	1%	5%	4%	3%	7%
Taxi	0%	0%	0%	0%	1%
Motorcycle, scooter or moped	1%	1%	1%	1%	1%

1 2020 Housing affordability in England and Wales: 2020 - Office of National Statistics

3 Overview of the Current Situation

Method of Travel to Work	New Settlement area (Harrogate 016)%	Harrogate and Knaresborough Built-up-area %	Harrogate District %	North Yorkshire %	England %
Driving a car or van	69%	59%	62%	62%	57%
Passenger in a car or van	4%	5%	5%	5%	5%
Bicycle	2%	2%	2%	2%	3%
On foot	6%	16%	15%	15%	11%
Other method of travel to work	1%	1%	1%	1%	1%

Table 1: Mode Share for commuter trips

(Data taken from Census 2011 data: QS701EW - Method of travel to work)

3.10 As illustrated in Table 1 the primary mode used for commuting is private car or van, which is around 73% for the new settlement area which is slightly higher than the Harrogate district and North Yorkshire averages of 67%, and around 10% higher than the national average. This is most likely a reflection of the rural location of the new settlement and rural nature of much of the district, higher than average car ownership and general lack of alternative transport options.

3.11 Public transport (train and bus) use for commuting trips in the new settlement location is approximately half of the district average of 6%, which is half again of the national average of 12%. Cycle mode share (2%) is equal to the district and county averages and just below the national average proportion (3%) whilst walking mode share at 6% is significantly lower than the district average of 15% (which is higher than the 11% national average).

3.12 The findings above reveal that there is a high propensity for car travel in the Harrogate district, given relatively high car ownership and a relatively large rural hinterland around the towns which are lacking good quality alternative transport options.

Movement Analysis

3.13 The principal road link in the vicinity of the proposed new settlement is the A59. The A59, at a strategic level connects Liverpool to York providing an important east-west link, across the north of England, through the Harrogate district. At a local level the A59 connects Harrogate and Knaresborough to York as well as connecting to the A1(M) at junction 47. The A1(M) forms part of the Strategic Road Network, providing connections to Darlington, Teesside and Tyneside to the north and connections to West and South Yorkshire to the south, before continuing on to the Midlands and London. Junction 47 of the A1(M) is currently being upgraded to address the peak hour congestion that often results in traffic queuing along both the northbound and southbound A1(M) exit slip roads representing a significant safety concern. The level of queueing is variable, which results in unreliable journey times

along the adjacent A59 and A168 routes. The situation is exacerbated during times of increased demand, such as large scale events like the Great Yorkshire Show, where congestion spreads further across the road network.

3.14 The A59 between Knaresborough and York is relatively rural in nature and provides connectivity to numerous small villages. Given this setting the road is utilised by a range of vehicle types and trip purposes including agricultural vehicles, HGVs and typical commuter and leisure traffic; this can lead to some journey time reliability issues, on certain sections of the route – in particular at the A59 / A1(M) Junction 47. Work to Junction 47 is now complete.

3.15 Traffic flow analysis of the A59, using 2019 count data taken from Department for Transport (DfT) count sites on the A59, and NYCC's online traffic count database for the local road network illustrates the following:

- Most significant volumes of traffic are along the A59 to the west of A1(M) between the A59 / A658 roundabout and the A59 / A1(M) – 25,600 AADT
- Traffic flows to the east are much lower around 16,500 AADT
- HGV proportions are relatively high to the west around 14%, reducing to between 4% and 9% on the approach to York.
- Low numbers of cycle trips

3.16 The traffic flow summary above suggests a large proportion of traffic from the west uses the A59 to access the A1(M) and destinations beyond. Also the route generally acts as a strategic corridor route and is not attractive for cycling. Therefore is appears that the A59, whilst providing good opportunities for connectivity by road it does also serve as a barrier for movement for other modes, particularly active modes.

3.17 Trafficmaster journey time and speed data has been analysed along the A59, in the vicinity of the new settlement, and this revealed that congestion may be an issue on the section between Station Road / Gilsforth Hill junction (north of Cattal) and Pool Lane Junction (east of Kirk Hammerton) in both directions, but particularly in the eastbound direction.

3.18 Other key routes in the area include the B6265 which connects the A59 to Boroughbridge to the north, as well as the A168 which runs adjacent to the A1(M) connecting northwards towards Boroughbridge and southwest to Wetherby.

Safety information

3.19 Desk-top analysis of traffic safety was undertaken by reviewing Personal Injury Accident (PIA) collision data in the immediate vicinity of the new settlement site. Figure 2 below illustrates the location and severity of the collisions, for the five-year period 2015 – 2019.

3 Overview of the Current Situation

Figure 2: Collision Data in vicinity of the new settlement

(Source: CrashMap - UK Road Safety Map)

3.20 As illustrated in Figure 2 there are a total of 7 "slight" severity accidents recorded; 4 of these are in the Green Hammerton area at the A59 junctions to the east of the site where the A59 connects to the B6265 (3 collisions) and York Road (1 collision).

3.21 Whilst there appears to be some localised safety issues at junctions in the Green Hammerton area, accident rate analysis, undertaken as part of the A59 Multi-Modal Improvements Study, revealed that the A59 section in the immediate vicinity of the new settlement location has a lower accident rate than the national average for a road of that type.

Public Transport Provision

3.22 Public transport provision in the location of the new settlement is principally restricted to rail. The railway line between Harrogate and York passes through the new settlement site location, running parallel to the A59 corridor. This section of the "Harrogate Line" connects York to Leeds via Knaresborough and Harrogate.

3.23 There are five stations situated along the rail line between Harrogate and York including Cattal and Hammerton which are within and adjacent to the new settlement site respectively.

3.24 Currently there are two trains per hour (in both directions) between Harrogate and York, passing through the new settlement area following recent increases in frequency implemented in December 2021. This complements the relatively recent upgrade of rolling stock on the line; "Class 170" trains with additional capacity (189 seating capacity) were introduced to the line in 2020. This increased capacity and frequency is required to accommodate the predicted, 3% year-on-year, growth of patronage within the Local Plan period, as well as the suppressed demand as a result of current capacity and frequency restrictions.

3.25 Patronage data for Cattal and Hammerton stations, collated by the Office for Road and Rail, is illustrated in Table 2 and Figure 3; this illustrates the patronage trends pre and during the Covid-19 pandemic.

Station	2016-2017	2017-2018	2017-2019	2019-2020	2020-2021
Cattal	60646	61408	61356	61562	16242
Hammerton	26086	25824	28586	28862	5994

Table 2: Estimated rail patronage data (2019/20)

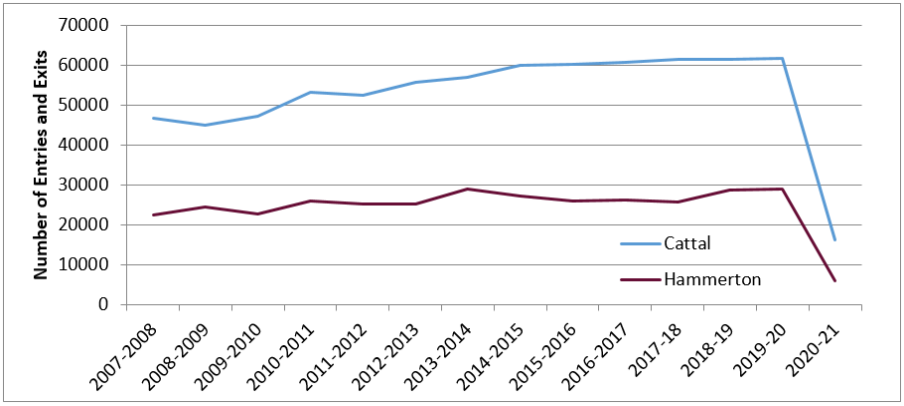


Figure 3: Rail patronage trends at Cattal and Hammerton stations

3.26 As illustrated in Table 2 and Figure 3 patronage levels for Cattal and Hammerton stations overall had a slight increase in usage in the years leading up to the Covid-19 pandemic. Usage, as expected given the various pandemic related restrictions, fell significantly during the pandemic.

3.27 Cattal Station is situated in the centre of the proposed new settlement site area. It is currently a small station with limited facilities, which includes Amazon parcel lockers. The station does not have a customer car park and nearby roadside verges are used for parking by rail users (informally accommodating around 10 cars). There are 11 Sheffield hoop cycle parking stands – accommodating up to 22 cycles. The station has a ticket machine (but no ticket office) and a small waiting room and shelter for passengers.

Bus Provision

3.28 Currently there are no bus services that pass through the new settlement site and there is no direct bus service running along the length of the A59 between Knaresborough and York.

3.29 Bus service 22/23, is the only service running in the vicinity of the new settlement. This service follows a circuitous route connecting Knaresborough and York via Boroughbridge and Ripon; it serves Green Hammerton and Whixley approximately one mile to the north/northeast of the centre of the proposed new settlement. Service 22/23 has a 2hour frequency with 7 buses per day, Monday to Saturday. Approximately 80% of the patronage on this bus route is by passengers travelling using the English National Concessionary Travel Scheme (ENCTS) bus pass, highlighting the level of subsidy required to keep the service running. Given the frequency and the protracted routing of the service, particularly in the westbound direction, it is unlikely to be an attractive service for most people located in the Cattal area for access to employment or education purposes. A summary of bus patronage for service number 22 is provided in Figure 4.

3 Overview of the Current Situation

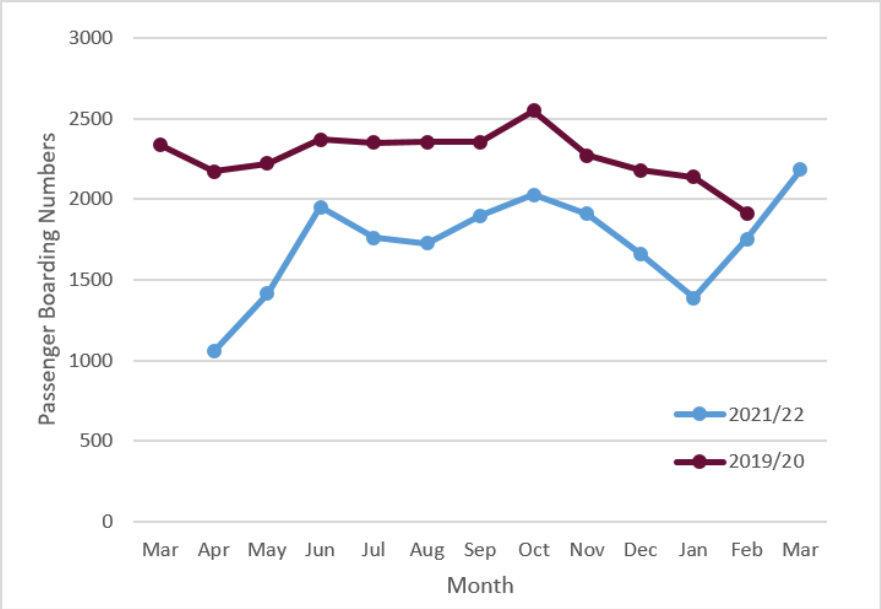


Figure 4: Bus Service 22/23 Patronage Comparison - Pre-Covid-19 and Current (2021/22)

3.30 The data illustrated in Figure 4 reveals that the patronage numbers on the service number 22 reduced during the Covid-19 pandemic. This is as expected given the various restrictions on social and public interactions and guidelines on use of public transport. The largest difference was in April where patronage reduced by over 50%, when comparing April 2019 with April 2021. Overall, the difference over the two, one year periods was around a 25% reduction in patronage, however recent trends are revealing the patronage levels are beginning to return to pre-Covid-19 levels.

3.31 In addition to the service referred to above there is the Connexions bus service no 412 which connects Wetherby and York to the south of the settlement (approximately 3.5km south of Cattal Station). This is an infrequent service with 5 services throughout the day. A summary of passenger volumes is provided in Figure 5, illustrating the changes resulting from the Covid-19 pandemic.

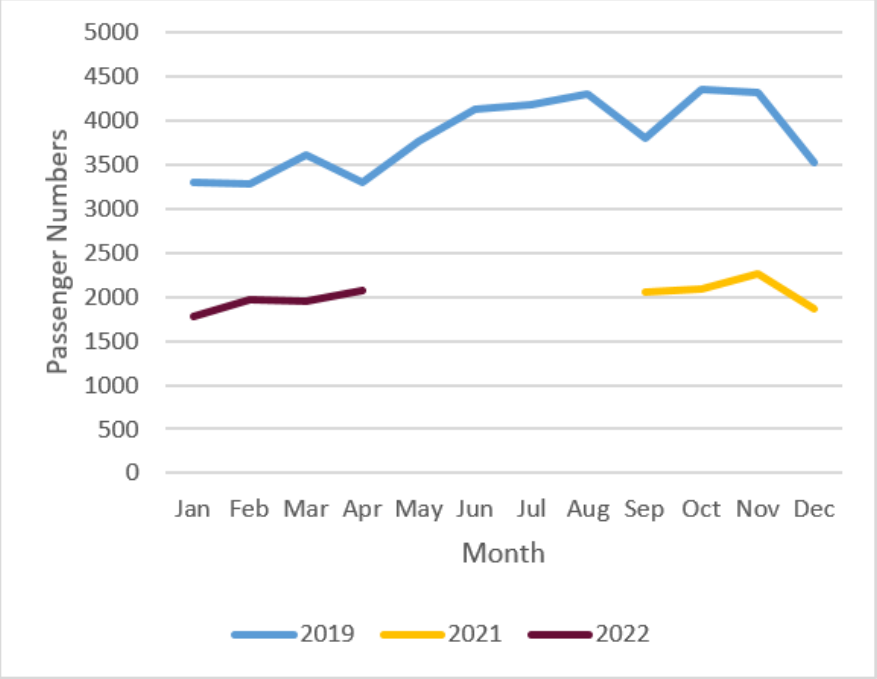


Figure 5: Bus Service 412 Patronage Comparison - Pre Covid-19 (2019/20) and Current (2021/22)

3.32 The data illustrated in Figure 5 shows that the passenger numbers using service number 412 had reduced significantly following the outbreak of the Covid-19 pandemic. As with service 22, this mirrored the national trend of decreased public transport use given the various restrictions put in place regarding public interactions and social distancing.

Active Modes

3.33 The existing provision for walking and cycling in the new settlement boundary is limited.

3.34 Footway provision primarily consists of footways in the built-up areas of Cattal and a footway adjacent to the eastern side of Station Road between Cattal Station and the A59. Walking distances from existing settlements are illustrated in Figure 6.

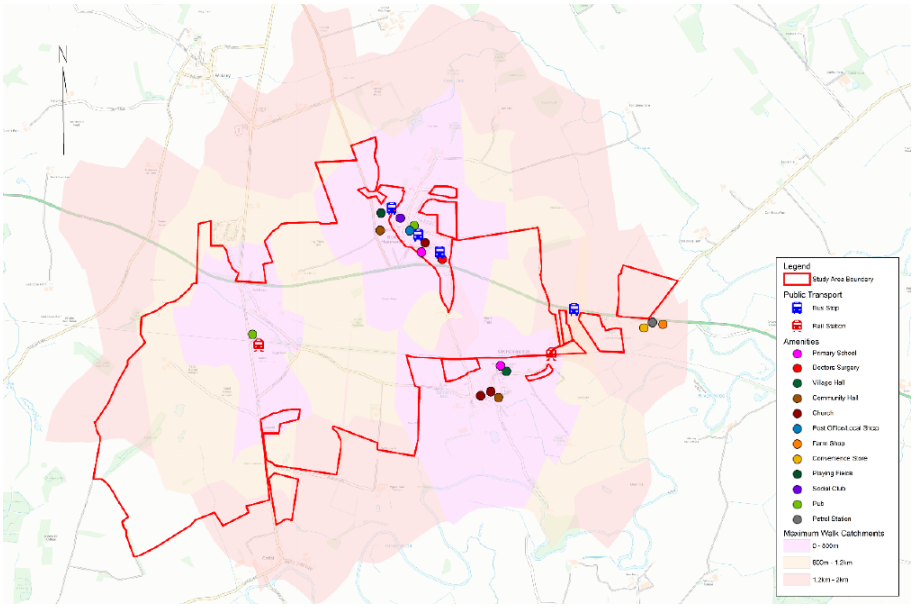


Figure 6: Walking Accessibility

3 Overview of the Current Situation

(Source: Gillespies/Vectos New Settlement Concept Framework, July 2018)

3.35 Figure 6 illustrates that, currently there are limited facilities and services within walking distances of the existing settlements in the area and in particular from the centre of the new settlement site. The lack of dedicated walking infrastructure and the location of the rail line and A59 through the new settlement can also act as barriers to walking trips.

3.36 Currently there is no formal cycle provision within the new settlement area, although the topography is relatively flat, lending itself to use of cycles for local trips. Figure 7 illustrates the cycling accessibility of the new settlement site.

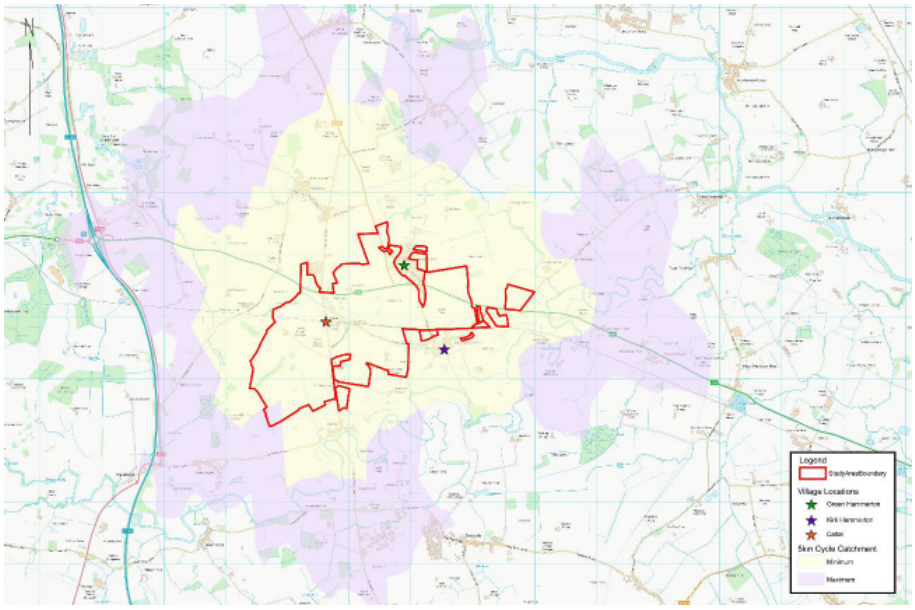


Figure 7: Cycle Accessibility

(Source: Gillespies/Vectos New Settlement Concept Framework, July 2018)

3.37 Figure 7 illustrates, in terms of distance, the existing facilities and services in the new settlement area that are accessible by bicycle. However, the lack of dedicated infrastructure and the location of the rail line and A59 can act as barriers to cycle use.

Section Summary

- Ageing profile, high housing affordability ratios and lack of high value employment opportunities all impact mobility in the Harrogate district and in many ways encourage movements out of the district for employment and social value opportunities.
- High car ownership, relatively poor public transport provision and lack of active mode infrastructure, particularly in the rural areas of the district all contribute to dominance and reliance on car trips.
- Relatively large traffic volumes and high speeds along A59 on northern border of the site, creates barrier to movement.
- Currently no bus services in the area for the proposed new settlement. Poor bus provision in the area around the new settlement.
- Reasonable rail service provision from Cattal Station, with 30 minute frequencies throughout the day. Commutable rail journey times to Harrogate and York.
- Cattal station has limited and basic facilities (including car parking)
- Limited provision for active modes in the new settlement area.
- Relatively few recorded road traffic accidents in the new settlement area – mainly restricted to the A59.

Transport Network Improvements

4.1 There are a number of planned transport improvements that are relevant to the new settlement proposal. These are summarised by mode below.

Rail

4.2 Recent improvements have been made to the rail service with improved frequency and rolling stock provision, although at the time of writing Northern Rail is proposing some, temporary, reductions in service provision.

4.3 NYCC also has long-term aspirations for the electrification of the Harrogate rail line (Leeds to York, via Harrogate), as well as the doubling of the current single-track sections between Knaresborough and Poppleton. Funding to deliver this however, as yet has not been identified although increased demand from a new settlement in the Cattal area may help facilitate a strong business case to seek delivery of this.

Bus

4.4 The bus sector, like many other elements of the transport sector, has seen a significant downturn during the coronavirus outbreak. However, the Government is recognising the shift from public transport to the private car needs to be shifted back quickly by making buses a practical and attractive alternative to the car for more people.

4.5 The Government published a national bus strategy "Bus Back Better", together with a £3bn fund, in March 2021 to drive improvements to the bus service offer. This sets out the Government's aim to transform bus services across the country, ensuring buses are more frequent, more reliable, better co-ordinated, cheaper and easier to understand and use. The strategy sets out an expectation that Local Transport Authorities (LTAs) should commit to establishing Enhanced Partnerships across their areas or develop a bus franchising assessment.

4.6 In June 2021, North Yorkshire County Council (NYCC) gave approval to proceed with the development of an Enhanced Partnership (EP) [(2)] and the associated Bus Service Improvement Plan (BSIP) was submitted to the Department for Transport in October 2021. The BSIP sets out the vision for delivering the step-change in bus services that is required by the national bus strategy. The BSIP is a "live" document highlighting key interventions with an overarching aim to grow patronage.

4.7 NYCC's initial engagement on the production of the BSIP identified that the top priorities for bus users, in North Yorkshire (and their representatives), are, in descending order:

- Clean, safe, accessible buses and waiting facilities;
- More frequent services (i.e. hourly or better);
- Simpler ticketing e.g. contactless card payment, flat fare, capped day travel ticket price;
- More evening and Sunday services;
- Good value adult fares.

4.8 The BSIP aims include provision of:

- A High Quality, Coordinated and Integrated Bus Network;
- Simple Payment and Ticketing Options;
- Simple, clear, and freely available information;
- Excellent Customer Service.

2 An EP is an agreement that enables local transport authorities and operators to set shared aims with regard to improving bus services

4 Transport Network Improvements

4.9 Unfortunately NYCC did not receive any funding, from the DfT, to support the delivery of the measures outlined in the BSIP. NYCC, nonetheless, has proceeded with the implementation of an Enhanced Partnership (EP) and on 30th April 2022 made an EP Plan and EP Scheme [3]

4.10 The area around the new settlement currently has relatively poor bus provision, which is reflective of many rural areas in North Yorkshire. However, advances in technology and provision of community transport are starting to see improved public transport, including demand responsive options for these rural areas.

Road

4.11 Junction 47 (J47) of the A1(M) provides access between the strategic road network and the towns of Knaresborough and Harrogate, to the west, and to the City of York to the east. The A168 runs parallel to the A1(M) between Walshford and Dishforth.

4.12 J47 suffers from peak hour congestion, with traffic queuing along both the northbound and southbound A1(M) exit slip roads. These queues can extend onto the A1(M), representing a significant safety concern. The queuing fluctuates throughout the peak period which results in unreliable journey times for journeys routing through the junction and along the adjacent A59 and A168 routes. The situation is exacerbated during times of increased demand, such as large scale events e.g. the Great Yorkshire Show, with the congestion spreading further afield.

4.13 In order to address this situation, capacity improvements have recently been completed. This included the widening of three of the four slip roads onto and off the roundabout and installation of traffic signals on the roundabout to better manage and improve the flow of traffic, addressing the issue of vehicles queuing on the slip roads and backing onto the A1. Traffic signals have also been added to the T-junction between the A168 and the A59 a short distance from Junction 47 on the east side; which will improve operation and safety of the junction.

4.14 It should be noted that as part of the Local Plan examination it was recognised that further capacity improvements are required to accommodate the delivery of the Local Plan, and in particular the new settlement, for which a financial contribution will be required, secured through a S106 contribution. In summary, a junction widening scheme has been developed that will create additional lanes, circulatory carriageway and creation of a free flowing segregated turning lane from the A1(M) northbound off-slip to the A59.

Active Travel

4.15 There are no formal active travel interventions within the new settlement site boundary however, a recently submitted funding bid (to the Active Travel Fund, for feasibility work, to develop a cycle route between Knaresborough and Flaxby Green (to the west of the A1M) was unsuccessful however does remain on the pipeline of schemes for future funding. The Active Travel Fund proposal is to provide a fully segregated foot/cycleway (approximately 7km long) between Knaresborough and Flaxby Green Park alongside the rail line to provide access to key employment and residential sites along the route. This forms part of a wider aspiration to provide connection to York via Cattal. Connection and provision of this route within the new settlement boundary will be essential to ensure good quality strategic links for active travel modes can be provided.

3 Bus Service Improvement Plan and Enhanced Partnership.

Traffic Modelling Work

4.16 The Harrogate District Transport VISUM Model (HDTM) was developed to support the production of the Harrogate District Local Plan. The HDTM was used to test and assess differing scenarios of planned development across the district, to inform decisions on the location and quantum of development, together with any required mitigation measures. This work formed part of the evidence base for the Harrogate District Local Plan and was scrutinised in the Examination in Public (EiP) in January 2019. As a result of the findings of the EiP, a reduced quantum of development was recommended for inclusion within the final, adopted, Local Plan.

4.17 The local plan modelling work identified that the local highway network, with mitigation measures could accommodate the planned local plan growth; this includes requirements for mitigation at junction 47 of the A1M.

Section Summary

- There are a number of proposed transport improvements in the vicinity of the new settlement.
- Rail improvements in terms of rolling stock and service frequency have recently been made and there are long term aspirations for electrification and doubling track at single track locations.
- Bus improvements are planned in NYCC's BSIP, however currently no funding has been obtained to deliver these.
- Junction 47 of the A1M has recently been upgraded to improve capacity and safety of the junction
- Active travel improvements are being investigated for sections to the west of the new settlement offering potential for wider strategic links to the new settlement

5 Changing Travel Habits and New Technology

Changing Travel Habits and New Technology

5.1 Societal changes in recent years, including changes in working practices, shopping preferences and new technologies have impacted the way people use the transport system. There is also an increased awareness of the impacts transport can have on climate change, air quality, health and the economy. This, combined with the effects of the Covid-19 pandemic, has started to have a profound effect on mobility. In connection with this, the concept of "mobility as a service" is coming to the fore; this looks to provide an integrated and improved transport service for travel across modes.

Travel Trends

5.2 Overall, individually (pre-pandemic) people are tending to travel less; on average making 16% fewer trips now when compared with 1996. People, individually, also travel 10% fewer miles when compared with travel in 2002; this equates to a reduction in travel time of around 22 hours [(4)] DfT data suggests that whilst there has been a growth in car ownership, car travel, car trips and time spent in the car per person in England has been declining since 2002. However, society's total mileage travelled by car has increased due to population growth. Geographic location also has a bearing on the level of car use with rural areas having greater numbers of car trips than urban areas; broadly reflecting the accessibility to public transport, length of journeys and level of constraint on car use. Car dependence has grown, partly because the necessary infrastructure has improved, but also as it is often seen as a 'superior' or 'easier' mode of travel. Car use is habitual for many people and changing behaviour will require a mix of 'hard' and 'soft' measures, including provision of the right infrastructure to support modal shift together with initiatives to encourage a switch to non-car modes of travel.

5.3 There are emerging technologies (such as Connected Autonomous Vehicles, Electric Vehicles) and concepts (such as shared mobility and Mobility as a Service) that may change and shape how travel is undertaken in the future. However, there is uncertainty and limited evidence to suggest how these innovations will change society's approach to, and demand for, travel. Furthermore, the effects of the Covid-19 and enforced working from home for many may have fundamentally changed how some approach access to travel to work, retail and leisure; it is uncertain as to how this will change travel patterns in the future.

Travel Behaviours

5.4 Travel behaviours are also changing, particularly for younger generations who are increasingly moving away from car use and ownership – see Figure 8.

4 Marsden, G. et al. (2018) All Change? The future of travel demand and the implications for policy and planning, First Report of the Commission on Travel Demand, ISBN: 978-1-899650-83-5.

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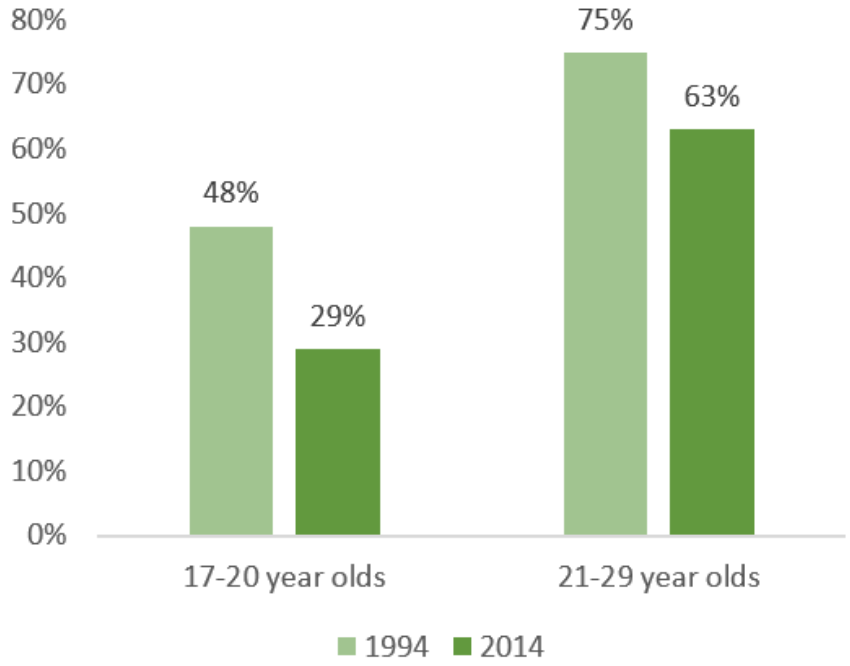

Figure 8: Driving Licences Among Young People in UK

(Source: Office for National Statistics / DVLA)

5.5 Figure 8 illustrates large proportional decreases in driving licence numbers, between 1994 and 2014, held by people aged between 17 and 29. This may be due to several reasons, including rising costs associated with car use as well as the greater openness to the sharing economy and technological advances.

5.6 Costs associated with travel are also changing, with personal transport expenditure rising relative to income; this increases the inequalities in transport provision with the poorest households being disproportionately impacted. As such, initiatives such as shared transport are becoming increasingly important and popular to enable people to access a car. A car-club scheme is currently in place in Harrogate, having launched in July 2020. The initial uptake was slow given the restrictions faced as a result of the Covid-19 pandemic, however, as restrictions have eased the usage of the cars has risen; with a utilisation rate of 21% recorded in July 2021 (20% utilisation is generally seen as the target figure for a self-sustaining car club operation). Due to the initial relative success of the car-club there are proposals to roll out the offering across the Harrogate district with vehicles being placed in Knaresborough and Ripon.

5.7 On-demand travel had an effect on travel behaviour by enabling people to better access public transport options at convenient times to them. 'Yorbus' an on-demand bus service pilot study, which connected the areas of Ripon, Masham, Bedale and surrounding villages, meant people did not have to wait for a conventional bus service on a prescribed route, at a bus stop, on a regular timetabled time. After initially being extended the 'Yorbus' bus service has now ended due to lack of funding. There are no on-demand services currently operating with North Yorkshire supported by the council.

5.8 National surveys on attitudes towards transport have been undertaken by the DfT [5]. These surveys revealed that most people, who are able, cited that they would cycle more if safety for cyclists was improved. The majority highlighted that if better infrastructure for cycling was

5 National Travel Attitudes Study: Wave 5 - GOV.UK - www.gov.uk

5 Changing Travel Habits and New Technology

provided it would encourage them to cycle more; 64%, of the sample questioned, highlighted support for the creation of dedicated cycle lanes in their local area, even if it would result in less road space for cars. Similarly, the majority of respondents highlighted that good quality well-maintained pavements would encourage more walking. It is therefore imperative that a new settlement provides the right conditions for active travel to make it common place and the natural mode choice.

Changing Work Patterns

5.9 The changing nature and location of work, land use, housing and online retail growth are also affecting how people travel. The Covid-19 pandemic may have accelerated these changes and it remains to be seen the permanence of the changes. However, the demand for travel is complex and people are more acutely aware now of opportunities to change how they travel and interact with the transport system.

5.10 Digital connectivity in particular is having a huge impact on how people live their lives. The increasing use, development and availability of technology to advance the sharing economy and digital services (e.g. home working) are having a large impact on travel and are expected to have a continuing impact into the future. The enforced working from home for many during the Covid-19 pandemic has illustrated that it can be done successfully. The flexibility it affords combined with reduced commuting travel times has been seen as a positive outcome for many, with more people expected to continue to work from home, where possible, for at least part of the week.

Climate Agenda

5.11 The climate agenda is gaining greater prominence and there is greater awareness of the impacts the transport sector has on the environment. Transport is the largest contributor to UK domestic greenhouse gas (GHG) emissions and, in 2019, was responsible for 27% of the emissions; the majority of these emissions (around 55%) were from cars and taxis [(6)]As a result of this, there are changing attitudes and behaviour, particularly among younger people, around transport and its decarbonisation. There has been a rising sense of political urgency towards delivering a low emission future through the UK's commitment to net zero carbon emissions by 2050. This means that developments and interventions must offset an equivalent amount of greenhouse gases resulting from its impacts.

5.12 In terms of addressing the climate agenda, there is a focus on sustainability and the 'Avoid, Shift, Improve' concept. This order of priority seeks to improve efficiency of the transport system by:

- **Avoiding** the need to travel in the first instance – this can be achieved through appropriate land-use planning and improved digital connectivity (e.g. the 20 minute neighbourhood).
- **Shifting** mode from the most energy consuming and inefficient modes such as private cars towards more environmentally and efficient modes such as public transport and active modes.
- **Improving** efficiency of the system or modes – this can be by changes in technology of transport towards more efficient travel or use of 'cleaner' fuels e.g. use of Ultra Low Emission Vehicles (ULEVs) rather than Internal Combustion Engine (ICE) vehicles.

5.13 The 20 minute neighbourhood concept refers to the creation of places where the majority of people's needs are met within a relatively short walk or cycle travel time. This will become increasingly important if the working practices of many people change with more homeworking, resulting in more people spending more time locally. The benefits of this

6 Transport and Environment Statistics: 2021 Annual Report (publishing.service.gov.uk).

'local' approach include creating a more active lifestyle; improving physical and mental health, reduced traffic, improved air quality and economic benefits to local shops and businesses as well as strengthened communities.

Transport Aesthetics

5.14 The transport network, its infrastructure and its users have a significant impact on the appearance of an area and how people move to, from and within it. Good place-making principles that combine spatial planning, design, management and transport elements, when considering new settlement designs, is essential. Priority needs to be given to sustainable travel and creation of spaces that encourage modal shift by creating spaces that cater for multiple modes of travel, not just the car. This will ensure creation of a good quality place that all members of the public can benefit from, through promotion of active health and improved wellbeing.

Section Summary

- People are tending to travel less however, total distances travelled by society are increasing due to the increased population.
- General trends are showing a change in attitude to travel, particularly by younger people with the desire or ability to own a car reducing. On-demand, travel sharing are becoming increasingly desirable but barriers to their use are identified.
- The changing nature and location of work, land use, housing, online retail growth and digital connectivity are all affecting how and when people travel. The Covid-19 pandemic has potentially accelerated a permanent change in commuting habits.
- The climate agenda is gaining greater prominence and transport needs to address its significant impact on the environment. The 'Avoid, Shift, Improve' concept should be followed to improve efficiency and sustainability of the transport system.
- The 20 minute neighbourhood concept is encouraged to create places where the majority of people's needs are met within a relatively short walk or cycle travel time
- Good place-making principles that combine spatial planning, design, management and transport elements, when considering new settlement designs, is essential

6 Approach to Transport in the New Settlement

Approach to Transport in the New Settlement

Access and Movement Framework

6.1 Good connectivity within, to and from the site is essential to create a thriving, well-functioning and cohesive new settlement. Movement around the settlement should be via inclusive routes facilitating access to the facilities and services on offer.

6.2 A safe and integrated transport network that prioritises active and more sustainable travel is required to contribute to addressing issues relating to climate change.

6.3 Given the changes to the travel trends and demands there is a growing acceptance that the traditional 'predict and provide' approach to transport planning, which uses previous trends and evidence to predict future scenarios and infrastructure needs, is becoming outdated and can lead to over provision of highway capacity and 'induced' traffic at the expense of good active mode provision. As a result, there is a shift towards the 'decide and provide' approach, which seeks to identify a vision or outcome that we would like to see from the proposal and consider what infrastructure is required to deliver this.

Reducing the Need to Travel

6.4 The planning and design of the new settlement will need to have best practice sustainable and place-making principles at its core to maximise opportunities to reduce the overall need to travel and, in particular to discourage travel by car. The mixed land uses provided within the development should complement each other and provide the opportunity for many trips to remain wholly within the settlement and reduce commuting in and out of the settlement. Appropriate phasing of the development and delivery of different land uses can also aid this by enabling employment and residential areas to be provided at the same time to maximise opportunities for trip containment within the site.

6.5 To deliver the principle of a reduced need to travel, the development should seek to provide a 20 minute neighbourhood, comprising a distinct local centre with the majority of housing within a 20 minute walk of the facilities provided. The new settlement should therefore be delivered in a way that reduces the need to travel following the 'avoid, shift, improve' hierarchy (referred to in section 5). If the new settlement design ensures co-location of key services, leisure, retail, education and employment opportunities, within the settlement, then there is reduced need to travel elsewhere.

6.6 The Covid-19 pandemic has resulted in many people working from home and although it is uncertain as to the actual demand for this going forward, many organisations are starting to offer employees opportunities to work from home more often. This may result in changes to traditional commuter related travel and reduce the need to travel for some people. Therefore, appropriate location and connectivity between different land uses is required with facilities and services in close proximity to the residential areas to further reduce the need to travel. Likewise, essential infrastructure such as good quality broadband is required (and needs to be future proofed) to ensure people can access the services they require to work from home or from a flexible working space within the settlement.

Hierarchy of Provision

6.7 A hierarchy of provision should be provided to highlight the priority given to different modes and ensure suitable and appropriate infrastructure is provided to cater for safe and sustainable travel within the new settlement, and connecting to neighbouring settlements.

Approach to Transport in the New Settlement 6

6.8 As illustrated in Figure 9 there should be an emphasis on prioritising more sustainable modes. Integration of sustainable transport modes is essential to ensure their use is considered preferable, to the private car, to those within the new settlement. It is crucial that provision of sustainable transport infrastructure is provided at first occupation of the new settlement so that new occupiers can adopt sustainable travel habits from the outset.

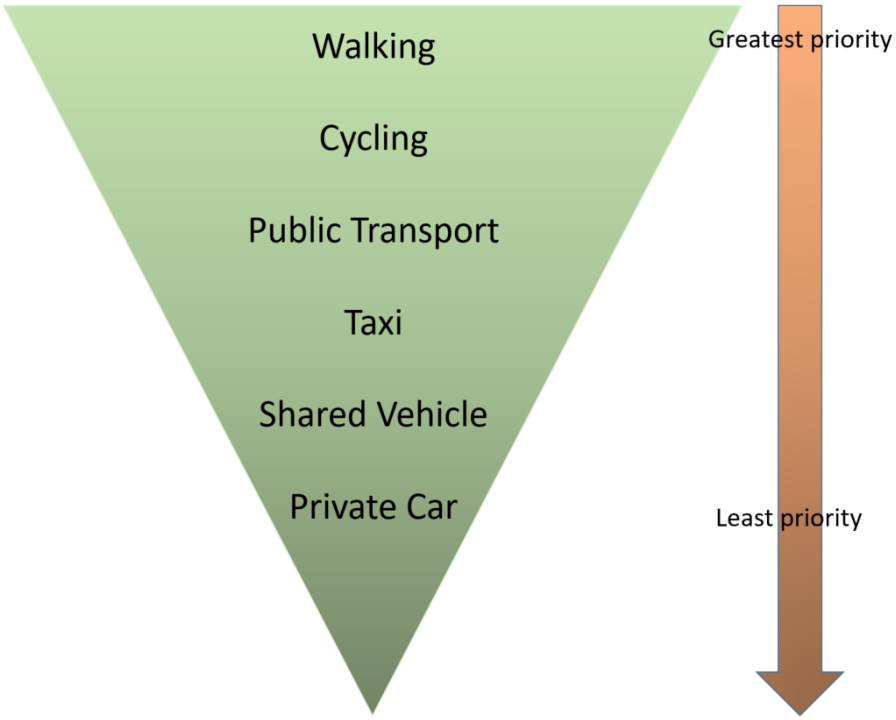

Figure 9: Transport Hierarchy of Provision for the New Settlement

6.9 The 'Decide and Provide' approach, previously referred to, provides the opportunity to meaningfully provide and prioritise a modal hierarchy as illustrated in Figure 9. This further emphasises the importance of early consideration of active mode provision.

6.10 Walking and cycling should be the preferred and most convenient modes of travel for movements within the new settlement. Provision of coherent, direct, safe, comfortable and attractive routes and networks for active modes is essential to achieving this. Walking and cycling infrastructure should also integrate well with public transport provision to ensure that longer distance travel can be easily accessed via those modes to incentivise its use over the private car.

6.11 Public transport should be the next most convenient mode choice for occupants of the new settlement, particularly for longer journeys that may not be possible, for many, by active modes. The creation of a mobility hub at Cattal rail station, which will be at the heart of the new settlement, will help facilitate uptake of public transport. This, together with proposed improvements to the station, will provide enhanced connectivity between the site and other areas. The recently increased frequency, to two trains per hour, together with rolling stock improvements on the Harrogate Line will further incentivise rail as a viable transport mode for those living in and visiting the new settlement.

6.12 The new settlement will also need to cater for bus travel to further enhance connectivity by public transport, particularly for areas not served by the rail services. Bus provision including, conveniently located bus stops will be required to support trips within the new settlement and trips to areas outside the settlement. Service routes, frequencies, journey times and reliability will need to be sufficient to ensure good connectivity and accessibility to a range of key destinations, including locations not directly accessible by rail, to encourage its use.

6 Approach to Transport in the New Settlement

Demand responsive bus provision that offers flexibility in terms of times and routings, in response to specific user requests, should also be explored as part of the development of the settlement to offer a more convenient and accessible service to complement fixed route services that are to be provided.

6.13 Inevitably there will be a need for occupants of the new settlement to travel to/from areas outside of the new settlement that are not conveniently connected with public transport modes, as such access via car will still need to be catered for. Where travel by car is needed, encouragement should be made for occupants to utilise more sustainable models e.g. through ensuring provision of electric vehicle (EV) infrastructure to enable uptake of 'cleaner' vehicles. All new homes should have, or have good access to EV charging points. The infrastructure should be future-proofed to cater for increased demand and evolving technologies. HBC has an Ultra Low Emission Vehicle strategy (ULEV) and provision of public charge points should be implemented in accordance with the prevailing strategy for the area.

6.14 The level of car parking available will have a significant role in travel behaviour and should be used effectively to minimise car usage for all land uses. Research undertaken, in London, found a strong relationship between the availability of car parking at new developments and the levels of car ownership of its residents. This relationship was stronger than the relationship of income and car ownership; the findings demonstrated that 56% of residents in developments with 0.5 spaces (or less) per dwelling owned a car, compared with 83% in developments that had more parking. Furthermore, higher car ownership also translated into higher car use with a direct relationship between the rate at which residents make car trips and the proportion of households that have access to a car.

Supporting Active Travel

6.15 It is vital that the use of the private car is kept to a minimum and that a genuine 'modal shift' towards active travel and public transport is achieved, in the new settlement.

6.16 In order to encourage use of active modes of transport to/from and within the new settlement there needs to be adequate provision for its uptake. Cycle provision that is compliant with Local Transport Note (LTN) 1/20: Cycle Infrastructure Design should be provided. This will ensure that a direct, coherent, safe, comfortable, attractive and inclusive network is provided allowing all to access it regardless of age, gender, ethnicity or disability. Good connectivity within the settlement and to neighbouring settlements is required to encourage uptake in travel by active modes.

6.17 Routes will need to facilitate utility and leisure trips to ensure that walking and cycling become a natural and convenient choice, particularly for trips within the settlement. Connections to routes linking settlements and planned strategic routes linking to, from and through the settlement will need to be facilitated, this will also need to include safe crossing points of major roads in the area such as the A59, and the rail line that passes through the site.

6.18 In addition to high quality routes, facilities to encourage cycling will also be required, such as safe and secure cycle parking at homes, places of work and social and leisure facilities and services. Cycle parking locations should be accessible and convenient and include a mix of types to accommodate long and short stay parking as well as provision for non-standard and electric bikes. Cycle parking in public areas should be in areas that are overlooked or experience high levels of footfall to improve safety and attractiveness of use.

6.19 Section 4 refers to the initial work into considering the feasibility of providing a cycle connection alongside the rail line that links Knaresborough and York. The initial phase of work is focussing on the link between Knaresborough and Flaxby Business Park however,

further linkages to the west to connect to the new settlement could provide improved sustainable travel opportunities to employment opportunities for residents in the new settlement.

Public Transport

6.20 As illustrated in Section 3, currently there is no bus provision serving the new settlement location and there is limited provision serving the surrounding area. Rail provision however is good, with Cattal Station, which will be located at the heart of the settlement, providing two train services per hour in each direction connecting towards Harrogate/Leeds and York.

6.21 Given the increased travel demand that will arise from the new settlement improvements to bus and rail provision are required to ensure good and viable public transport options are available to the new occupiers of the settlement.

Bus

6.22 It is proposed that good bus provision will be provided to/from and within the settlement as part of its development. It is anticipated that this would cater for movements north-south and east-west through the site, and this could include:

- North-South link - A new service from Boroughbridge to Wetherby, via Thorpe Arch and Whixley
- East – West link - A new service from York to Harrogate, via Knaresborough and Kirk Hammerton

6.23 In terms of commercial viability it is considered the frequency of services should be hourly throughout the day and half hourly during school and commuter peaks. New bus service infrastructure will also be required including the following:

- Bus stops and shelters located to maximise their accessibility for all – including seating and cycle parking as appropriate and consistent branding
- Real time passenger information and wayfinding as appropriate
- Bus laybys or bus stop ‘cage’ to enable access to the bus stops
- Bus boarders with higher kerb height to reduce the step transition between the bus and the footway
- High quality footway and cycleway materials
- Incorporated maintenance regime to ensure the quality of the infrastructure provided does not diminish and maintain attractiveness and accessibility to the services

6.24 It is generally accepted that a 400m walking distance catchment area is appropriate for a bus stop however, if a high frequency, quality and reliable service is provided the catchment area for a bus stop can be extended to around 800m. Connectivity to the bus shelters/stops need to be safe and direct for both pedestrians and cyclists with key bus shelters providing cycle parking also to further encourage use of sustainable travel.

6.25 Demand Responsive bus provision could form part of the public transport mix to ‘fill the gaps’ where fixed route services are not being provided. This can help better connect the smaller villages, in the vicinity of the new settlement, to the facilities and services provided in the new settlement including the onward travel opportunities such as the new bus services and rail network. However on-demand services would only be explored if a commercial service isn't provided or frequencies are not regular. On-demand services are expensive to run, as evidenced by the 'Yorbus' trial.

6 Approach to Transport in the New Settlement

6.26 The new bus services will need to be provided early in the development process to ensure the first occupiers have access to the bus services immediately to further encourage their use.

6.27 It has been identified that developer contributions for public transport improvements shall be secured to ensure a coordinated public transport that connects well with other areas and has a good level of service can be provided. It is anticipated that developer's contributions will establish the bus service provision in the first instance with the view to it becoming commercially self-sustaining in the future once the occupancy of the settlement increases.

Rail

6.28 Section 3 summarises the current rail provision including the recent upgrades to rolling stock and service frequencies (increased to two trains per hour in December 2021).

6.29 Given the large increase in population resulting from the new settlement it is anticipated that the demand for rail travel at Cattal station will also increase significantly. In order to cater for the increased demand the station facilities will need to be improved as part of the new settlement development to create an excellent rail hub that serves the community with a regular rail connection to Harrogate, York and Leeds. The Cattal station improvements will be planned for, and provided, in consultation with Network Rail, and will include:

- New /extended rail platform;
- Enhanced seating and waiting facilities;
- Secure, covered cycle parking, including for electric and non-standard bikes;
- Bike share / rental;
- New bus stops and waiting shelters;
- Real time train and bus information;
- Drop off points for taxis;
- Additional car parking, including provision for electric vehicles and dedicated car club spaces;
- Package delivery lockers.

6.30 The station should be 'step-free', meaning it will be easily accessible for all, including for users of wheelchairs, mobility scooters and those with pushchairs.

Mobility Hub

6.31 The new settlement should include a mobility hub that links travel opportunities by all modes to help provide a cohesive development that is not car dependent. In order for this to be successful the different sustainable modes of travel need to be complementary, coordinated and easily accessible for all and provide travel information to link up the different modes and attract its use.

6.32 The mobility hub will need to connect to a network of defined satellite hubs to provide services to connect people across the settlement through sustainable travel as well as offering good quality public realm. There is no defined or "one-size fits all" approach for the provision of a mobility hub, so the components will need to be reflective and adapt to the location and likely demands for the new settlement. The potential initiatives that could be included in the mobility hubs for the new settlement include:

- Provision for interchange between bus, rail and active modes – including seating, waiting areas, travel information, wayfinding and high quality public realm.
- Car Clubs – to reduce the need for ownership of a private car, which will retain accessibility and flexibility that a car can, without the need to maintain a vehicle. The

car club fleet should comprise low carbon vehicles, principally EVs and the mobility hub(s) should include the supporting EV charging infrastructure e.g. EV charging bays.

- Bike hire scheme including electric bikes to facilitate trips starting and/or ending in the new settlement.
- E-cargo bike share/hire to facilitate 'last mile' deliveries in the new settlement.
- Car sharing schemes for both the residential and employment areas.
- Cycle parking and repair / maintenance facilities (particularly at the central hub).
- Package delivery lockers.

6.33 Shared mobility can help reduce issues of congestion and over-reliance on the private car and the perceived need for car ownership. Shared mobility should be supported and encouraged in the new settlement through promotion of the following measures which can be encapsulated in a Mobility as a Service (MaaS) approach; which integrates various forms of transport services into a single mobility service that can be accessed on demand to facilitate seamless travel across modes to travel from origin to destination.

- Expansion of the existing car club to cover the new settlement area to offer an alternative to the traditional car ownership model.
- Car sharing - potentially through online car sharing apps or workplace programmes.
- Bike (or scooter) sharing – short term use of micro-mobility modes to provide alternative mode options for travel and potential multi-modal travel for longer journeys.
- Ride pooling / shared taxi – people use an app or website to book a taxi ride that they share with someone on a similar journey route. This provides the convenience of a taxi with reduced fares due to the sharing element but can potentially result in slightly longer journey times.

Access and Highway Infrastructure

6.34 The principal access to the new settlement will be via new roundabout junctions on the A59 to the north of the new settlement. Access will also be possible from the south of the site using the existing highway network connecting to Cattal and the west of the site connecting to Kirk Hammerton.

6.35 Additional highway access could be provided via a new link connecting to the south west of the site linking the new settlement to the A168. This will enable onward connections towards the south of the settlement without needing to pass directly through settlements to the south and avoid pinchpoints on the network such as the bridge at Cattal.

6.36 New highways will be provided within the new settlement to provide connection through the settlement. The new highways should be designed in accordance with Manual for Streets and the LHA guidance for 20mph design speeds and also incorporate measures to deter through-traffic travelling within the new settlement. The internal road layout should be such that it will not compromise good, direct and safe active travel linkages, in line with the transport hierarchy set out in Figure 9.

6.37 The internal road layout will also include a new road bridge over the rail line to provide vehicular connection to the northern and southern sides of the development. The existing level crossing at Cattal Station will be closed and a pedestrian / cycle bridge provided to enable direct access to / from the rail station for active modes.

Heavy Goods Vehicle Access and Management

6.38 Construction Logistics Plans must be developed to help minimise the impact of construction vehicles on the neighbouring road network.

6 Approach to Transport in the New Settlement

6.39 Commercial and delivery vehicles serving the new settlement must also be effectively managed. Delivery and Servicing Plans will be required for all land uses in order to consolidate and reduce the number of delivery trips, and to influence the routeing and timing of deliveries to avoid peak hours. To support this, business space should be situated in an easily accessible location in the new settlement and dwellings and / or satellite hubs should be designed to support effective servicing including the provision of drop-box facilities to minimise the need for repeat delivery visits due to 'failed' deliveries. Last-mile delivery solutions should also be considered that can minimise HGV activity in the new settlement such as e-cargo bike provision.

Travel Planning

6.40 A travel planning strategy and accompanying initiatives are required to complement the infrastructure that is being put in place as part of the new settlement development.

6.41 The travel planning strategy will need to include a package of actions and interventions that seek to reduce transport emissions and congestion by:

- Reducing reliance on, and dominance of, the private car – this will be achieved by reducing the number and length of car journeys, in particular those carried out in single occupancy vehicles .
- Promoting the use of sustainable travel modes, in particular those that are active, healthy, environmentally friendly.

6.42 In terms of travel planning for the new settlement, a settlement-wide Framework Travel Plan will be required to act as an overarching document and strategy for the settlement. The Framework Travel Plan will therefore need to set aims, objectives and targets to monitor the success of the development in achieving the objectives set. The objectives and associated targets should be SMART; Specific, Measurable, Achievable, Realistic and Time-bound. The targets will also need to be presented in terms of mode split and trip generation numbers for peak and off-peak hours and linked to phasing of build-out and land use type e.g. residential, employment and school to enable trip budgeting to be accounted for which will help monitor and trigger mitigation provision.

6.43 Site specific travel plans will be required for each land use site i.e. residential, employment, school and leisure facility within the full settlement development. The travel plans for each site will need to accord with and work towards achieving the objectives, targets and indicators of the Framework Travel Plan.

6.44 A Transport Assessment (TA)will be required to accompany any planning application the new settlement. The TA will need to assess the transport impacts of the new development, identifying appropriate improvements to mitigate the impact, and to promote sustainable development. They are required for all developments which generate significant amounts of traffic movements. The travel plans for the sites will need to relate to the relevant transport assessment and include the appropriate initiatives and interventions to address the impacts set out and encourage sustainable transport use; this is essential to ensure that there is not an unacceptable number of car trips generated on roads external or internal to the site.

6.45 The travel plan will need to ensure the occupiers of the new settlement have full awareness of the transport options that are available and are encouraged or incentivised to use them. In addition to the mobility hub interventions these can include:

- Personalised journey planning that involves the provision and promotion of evolving smart technologies to enable real-time journey planning and car park management opportunities.

- Incentivised travel initiatives – this can include bus and rail fare discounts and also discounted cycle equipment.
- Campaigns, marketing and associated initiatives.
- Appointment of a Travel Plan Co-ordinator to oversee implementation of the Framework Travel Plan, and subsidiary Travel Plans.

6.46 Robust monitoring will be key to ensuring that the sustainable travel requirements of the new settlement are delivered, and the targets achieved. This will also enable demonstration that sustainable trip patterns are embedded a spart of the new settlement development.

6.47 The use of smart technologies will be encouraged to ensure accurate, real-time monitoring is available both during construction and post build-out of trip numbers and modal split; speed; journey time; and air quality information. The installation of traffic counters from the start of development would allow traffic movements to be monitored and managed, providing information on how traffic is behaving and if travel plan targets are being met. The Travel Plans will need to demonstrate how this information will enable further interventions to be delivered to influence travel behaviour and mitigate any adverse impacts illustrated by the monitoring results.

Section Summary

- Good and safe connectivity within, to and from the site is essential to create a thriving, well-functioning and cohesive new settlement.
- Movement around the settlement should be via inclusive routes facilitating access to the facilities and services via sustainable modes of travel.
- The planning and design of the new settlement will need to maximise opportunities to reduce the overall need to travel, particularly by private car
- A hierarchy of provision should be provided with an emphasis on catering for active and more sustainable modes of travel.
- Provision of high quality infrastructure for active modes is essential to encourage its use.
- Public transport use for trips to/from the settlement should be incentivised through improved infrastructure, routes, service frequencies and overall quality of service.
- Provision of a mobility hub, and satellite hubs across the settlement, that links travel opportunities by all modes should be included to help provide a cohesive development that is not car dependent.
- Appropriate road infrastructure, including new and improved junctions to access and move safely through the settlement should be provided.
- Planning for construction and delivery vehicles is essential to mitigate impacts during construction and minimise trips in the new settlement.
- Framework and subsidiary travel plans for the whole settlement and individual land uses and sites will be required to reduce the reliance on the private car and encourage use of sustainable travel modes.

7 Delivery

Delivery

7.1 S106 contributions will be required to secure financial contributions towards the development and delivery of required infrastructure for the new settlement.