



# MODAL SHIFT

A Sustainable Transport Model

A Vision of Harrogate & Knaresborough in 2035

“Of these interventions it is transport interventions that have the potential to contribute most towards achieving the action plan targets.”

ARUP, Harrogate Borough Council Climate Change Action Plan Report 2011

This document was produced by Anna Gugan with contributions from Jemima Parker and other members of Zero Carbon Harrogate. It is part of a student submission for major design project and does not necessarily represent the views of Leeds Beckett University.

MA Landscape Architecture  
Student number c7164765



#### Document Revision History

File: Zero Carbon Hgt-Mouchel v5.0

Date: 27 June 2017

Document submitted to David Wilson, Mouchel as part of the Stakeholder Engagement process (Stage 1) in the Harrogate Relief Road Review Study.

File: Zero Carbon Hgt-Mouchel v5.1

Date: 25 July 2017

Public consultations images-files sizes reduced, text added instead. Minor corrections. PCT Data.

Convention Centre numbers updated. Additional Visuals.

Document submitted to HBC & NYCC Councillors

File: Zero Carbon Hgt-Mouchel v5.2 Date: 30 July 2017 Minor Edits before printing

File: Zero Carbon Hgt-Mouchel v5.2 Date: 4 October 2017 Correction re Pateley Bus Route.

PART ONE: A VISION OF HARROGATE & KNARESBOROUGH  
2035

Page

Introduction

4

Location

5

1. Park & ride

6

2. Reduce speed limits

8

3. Strengthen bus services

10

4. A dense network of cycle routes

12

5. Prioritise accessible green space

14

6. Harrogate gold route

18

7. Car clubs

20

PART TWO: HARROGATE & KNARESBOROUGH 2017

Futures Forum public consultation

21

Zero Carbon Harrogate consultation

26

Conclusion

29

References

33

# INTRODUCTION

Solving a complex problem, such as congestion, is a challenge but in attempting to resolve this issue today, the vision of how people want to live and move around Harrogate & Knaresborough in the future should not be compromised.

The economy of these towns rely heavily on visitors and on the attractiveness of the places to live. Major changes to the transport infrastructure must consider these less tangible but vital elements to local revenue.

In this document a vision of a future Harrogate and Knaresborough is described and should be considered in conjunction with the Stakeholder Engagement questions which tackle the congestions issues currently.

Sustainable transport methods have worked in other towns and cities but to be a viable choice they need to be convenient and accessible.

Zero Carbon Harrogate's objective is to transition Harrogate District to a net Zero Carbon District by 2035. The aim is to develop a low carbon sustainable economy which improves the quality of life for residents while playing a part in reducing the risk of devastating climate disruption. The members of Zero Carbon Harrogate seek to work in partnership with organizations, businesses and individuals across the District to achieve this.

This report contributes to the stakeholder consultation process and takes a holistic approach to solving congestion today without compromising climate targets in the future.



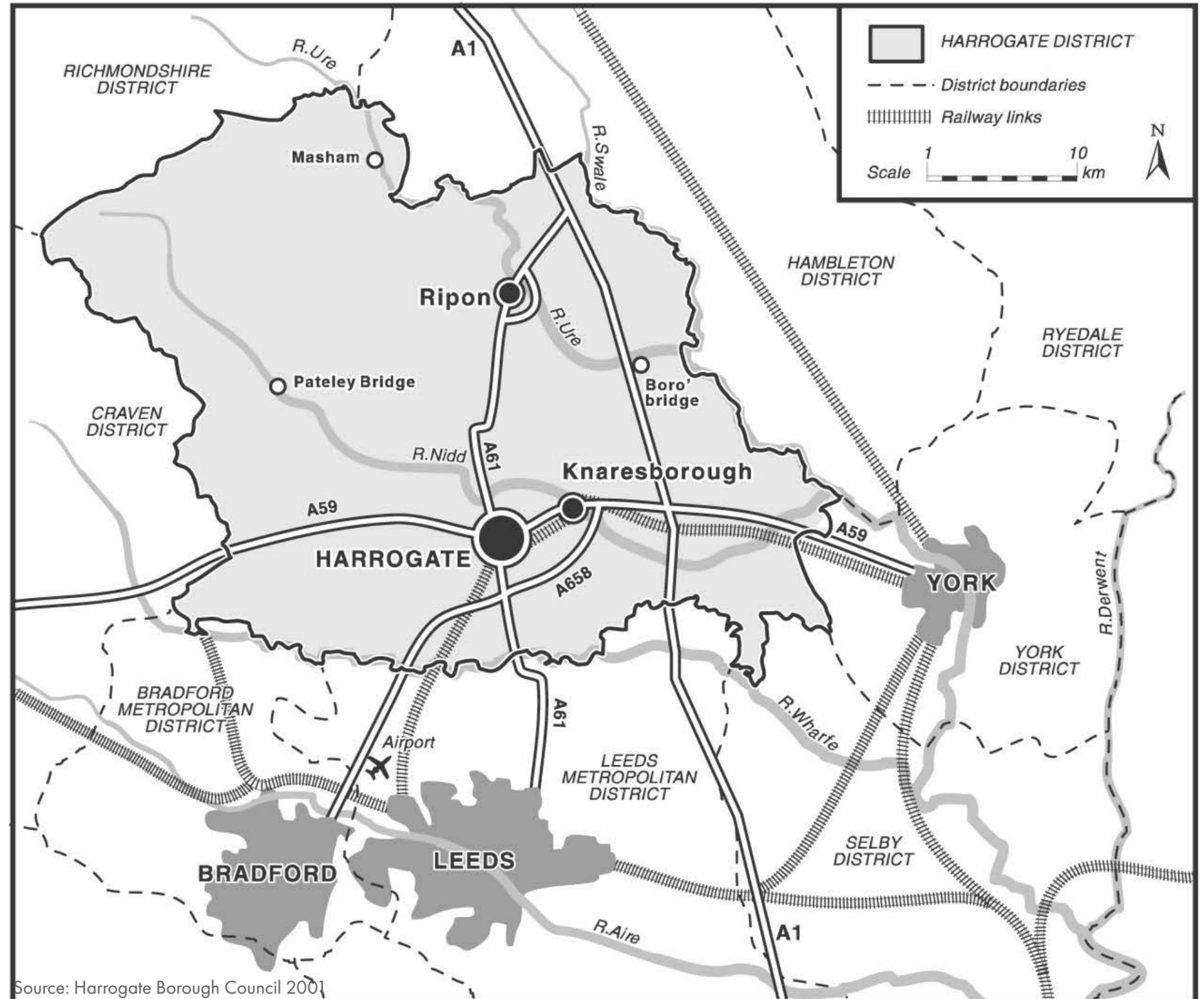
View from the Harrogate Exhibition Hall.

# HARROGATE & KNARESBOROUGH LOCATION

Harrogate & Knaresborough are located in Yorkshire in the North of England. Harrogate has a population 75,200 and Knaresborough population is 15,400 (2011 Census).

As an historically old settlement, Knaresborough has narrow and charming streets in its centre amongst beautiful architecture. Harrogate had a rapid expansion in Victorian times with broad streets and large tracts of public green space because of the role of the town as a visitor destination and a health spa.

Modern Harrogate and Knaresborough are attractive places to live with many residents commuting to York and Leeds for employment. These towns also serve Harrogate District which is a wide rural area and includes Ripon, Boroughbridge, Pateley Bridge & Masham. There are many small villages in a network of rural roads.



## VISION ONE: PARK & RIDE A) BUSES & BIKES

Reducing the volumes of traffic coming into the town centre is achievable through park and ride schemes. In this vision the transport switch includes options for buses, bikes and trains.

Located in Pannal, the Yorkshire Show Ground, the gas works and in a location East of Knaresborough the transition from private vehicle to public transport would have a significant impact on the in town traffic.

The Pannal & Knaresborough East park & ride areas would use the rail track rather than roads (see map page 7).

Harrogate has a reputation for creating beautiful parks and these park and ride schemes can be elegant and screened with trees to reduce the visual and environmental impact of a collection of vehicles. The gas works park and ride should include a linear park for walking and bike access away from the A61 roundabout.



A car PARK with vehicles screened by trees.

In a survey of 31 Local Authorities of Park and Ride schemes for the Historic Town Forums (2009), 94% said the schemes were successful at meeting their aims.

Most Authorities had more than one aim for their Park and Ride schemes including: reducing congestion (100%), improving accessibility (50%), improving air quality (33%) and economic benefits (40%).

“Over 80% of all respondents and small historic towns stated that local businesses are satisfied or very satisfied with the park and ride service”

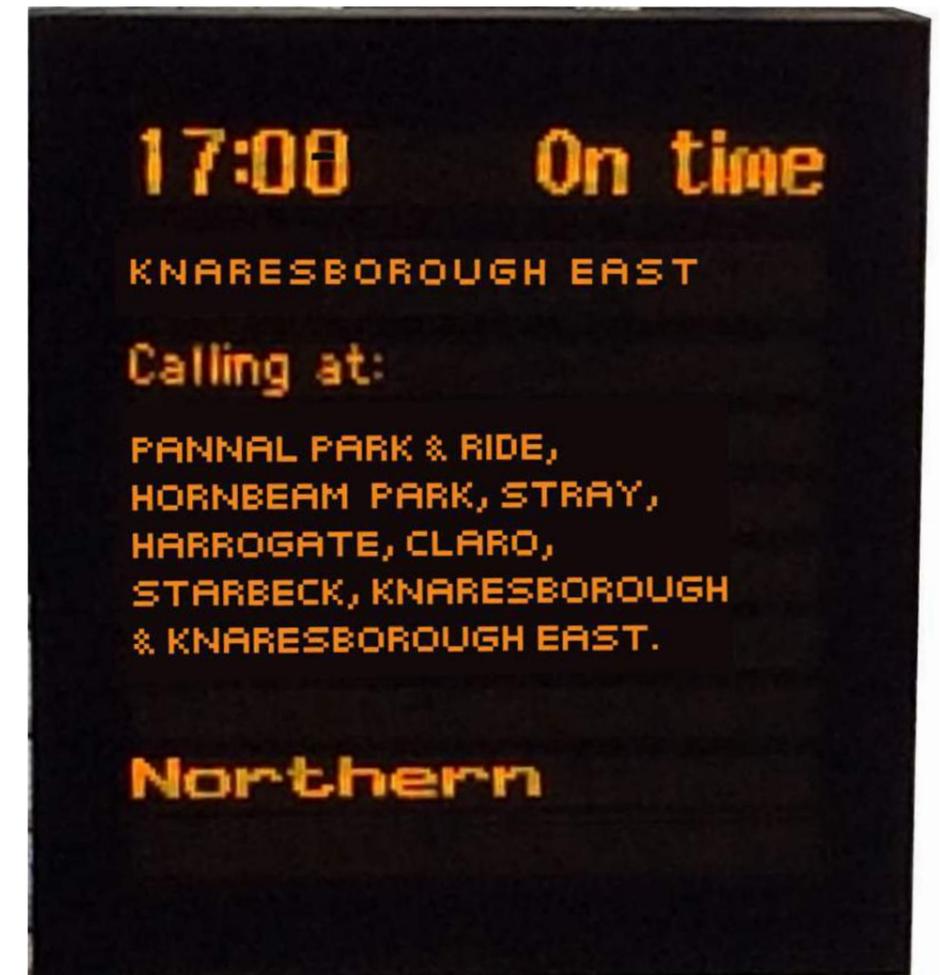
(Historic Towns Forum & RPS, 2009).

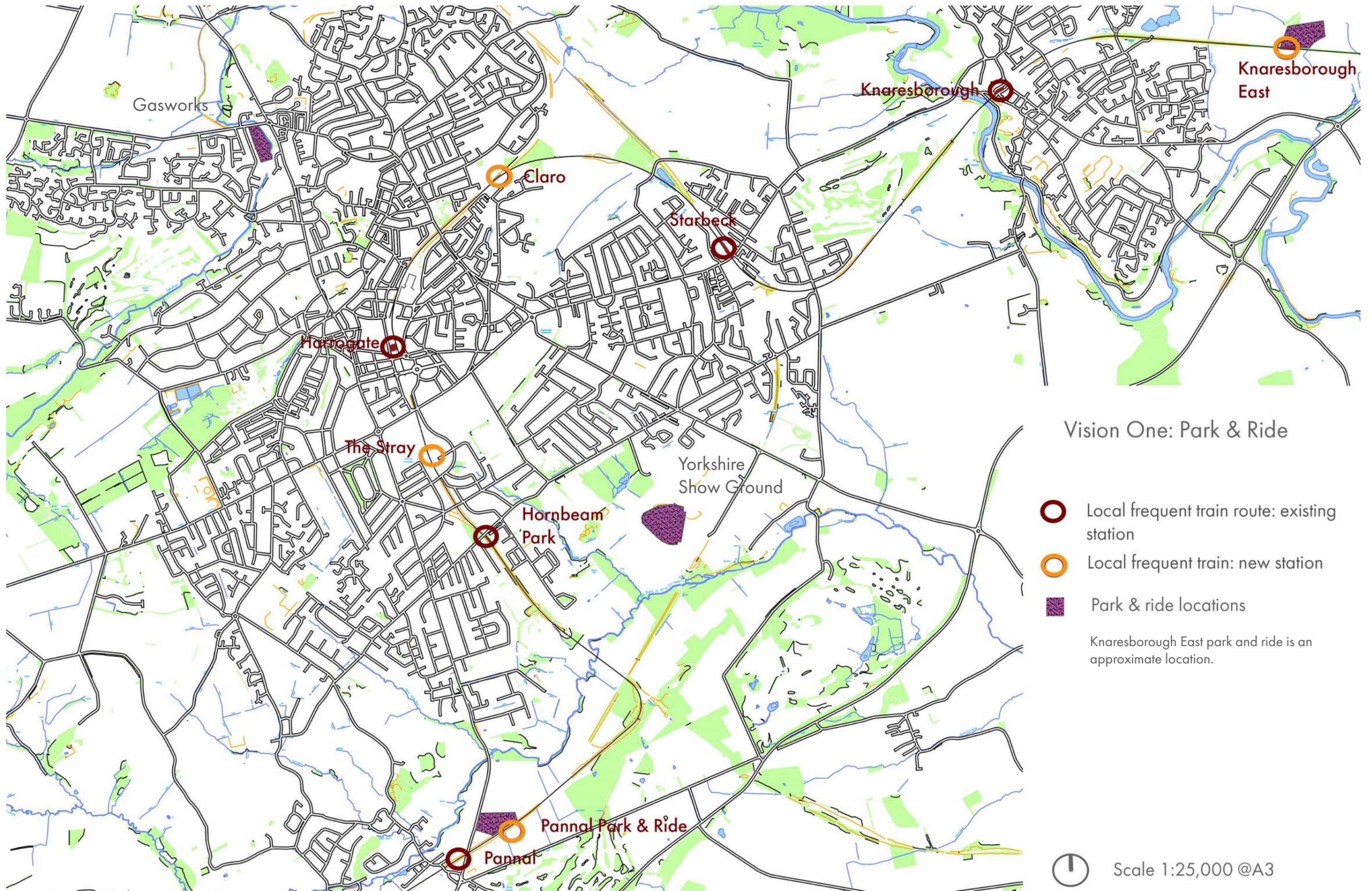
## VISION ONE: PARK & RIDE B) TRAINS FOR URBAN JOURNEYS

The winding nature of the rail track through Harrogate and Knaresborough is a historic quirk which could serve the towns well in the future with multiple urban stops for a frequent urban train service.

Adding park and ride stops, and additional halts for suburbs such as Knaresborough East and employment areas such as Claro Industrial Estate takes pressure away from the road network.

The additional Stray halt will serve the local secondary schools of Rossett High School, Harrogate Grammar & St Aidan's. The Claro halt will serve Harrogate High School.





### Vision One: Park & Ride

-  Local frequent train route: existing station
-  Local frequent train: new station
-  Park & ride locations

Knarsborough East park and ride is an approximate location.

 Scale 1:25,000 @A3

## VISION TWO: A) REDUCE SPEED LIMITS

Slower traffic gives greater priority to pedestrians in urban areas.

With lower road speeds pedestrians have an actual and perceived sense of improved safety. Lower speed limits are already adopted in larger cities such as Glasgow. Locally many primary schools in Harrogate & Knaresborough have 20mph zones.

A 20mph national urban limit being the norm, with signage for exceptions to this speed, is being called for by the 20s Plenty Organisation 'to better balance the roles of living and place (e.g. residential, shopping, learning) with traffic'. ([www.20splentyforus.org.uk](http://www.20splentyforus.org.uk), 2015)

Andy Waddell, Glasgow City Council's Head of Infrastructure Services, said: "The introduction of a 20mph zone in the city centre is a key element of the city centre transport strategy. The primary motivation is to improve safety and make the city centre a better place to be.

"The number of people entering the city centre has risen significantly and by reducing the speed of vehicles we reduce the risk and severity of accidents. It will also contribute to a better city centre environment, smoother traffic flows and improved air quality. It also makes it a more encouraging environment for cyclists and pedestrians."

(Glasgow City Council, 2016).



Knaresborough High Street

## VISION TWO: B) HOME ZONES

Home Zones are residential areas where road speed is reduced to 10 or 20mph. The road layout and structure encourages pedestrian and cycling priority. Children have more places to play and the streets are a social space.

Access roads to the home zones are limited to remove 'rat running' of vehicles passing through residential areas to avoid congestion. Reduced junctions from minor roads helps speed up the through traffic and quiet residential streets encourage residents to cycle and walk. Bus access can still be achieved through driver controlled bollards.



Wonsford Home Zone, Exeter



Electronic bollards at Leeds University

## VISION THREE: STRENGTHEN BUS ROUTES

Bus routes are the lifeline of a rural economy and protecting connections from Harrogate & Knaresborough to smaller towns is key.

A new orbital service providing links around the outskirts of Harrogate and Knaresborough to places of employment and the hospital would avoid a journey into a town centre and out again. With the introduction of a park and ride scheme, orbital buses routes are an alternative to the bus park and ride journeys into the town centres.

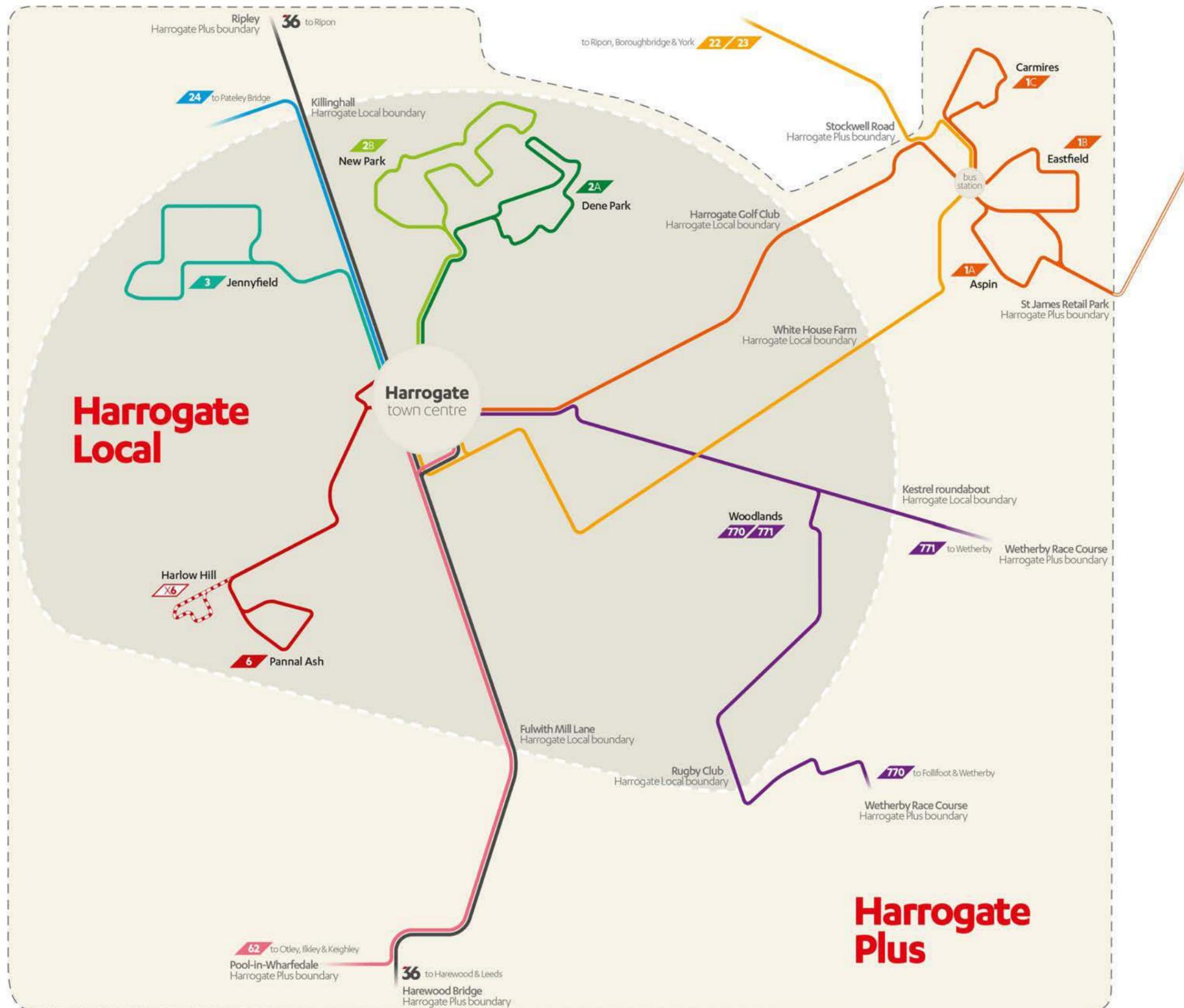
Protecting bus routes in rural areas is important, providing a service when there is often low demand. Transdev have announced a reduction of service on the Harrogate to Pateley Bridge bus route (Harrogate Advertiser June 2017)



Harrogate Bus Station

## VISION FOUR: STRENGTHEN BUS ROUTES

Harrogate & Knaresborough are served by two bus companies, Transdev & Connexions.



Transdev bus routes (Source: Transdev 2017)

# VISION FOUR: A DENSE NETWORK OF CYCLE ROUTES

Success of the Grand Depart 2014 in Yorkshire has created a positive cycling association in Harrogate & Knaresborough. In 2019 Harrogate will host Union Cycliste Internationale Road World Championships.

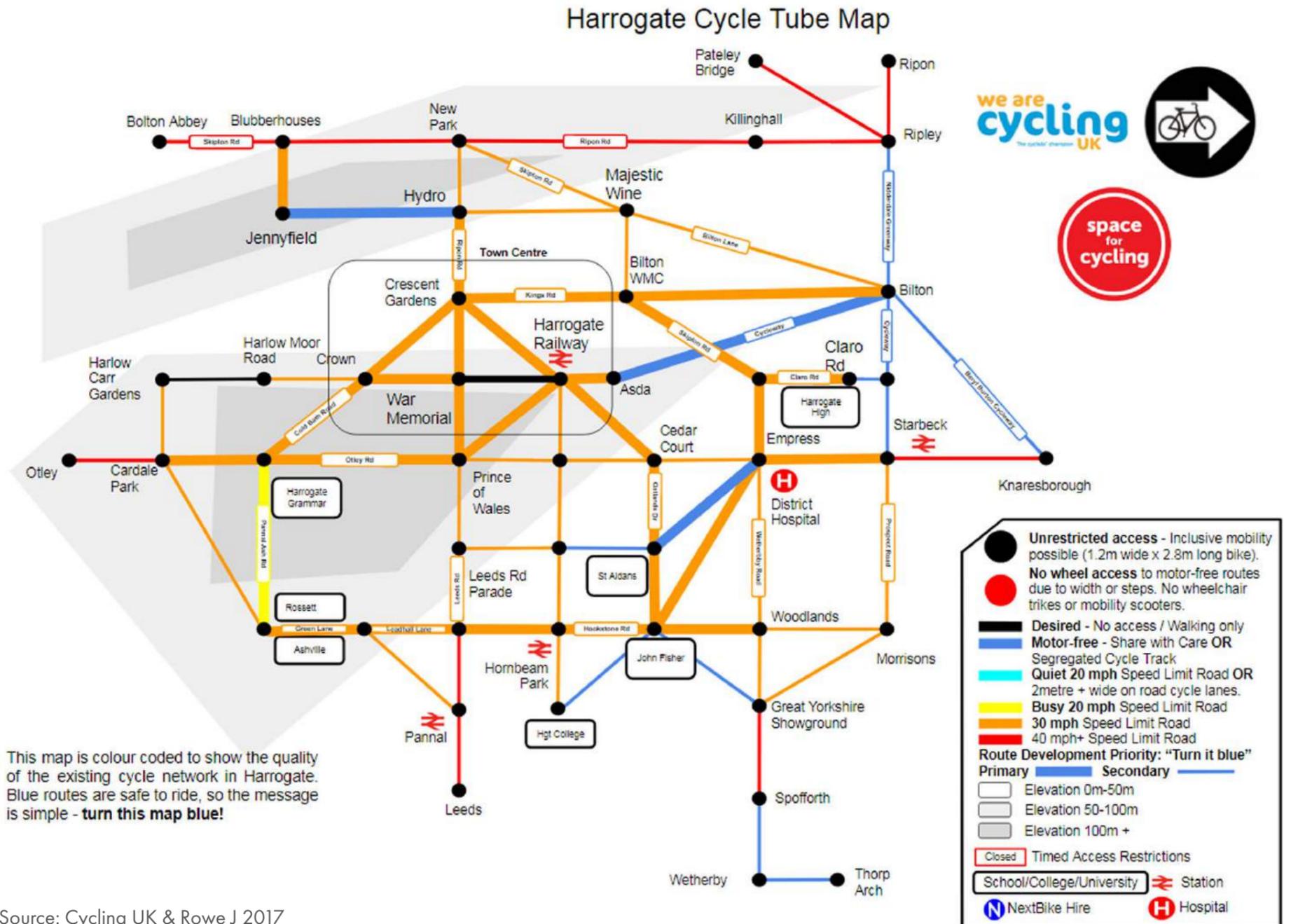
In a vision of Harrogate & Knaresborough in 2035, the excellent reputation for sports cycling is complemented by the day to day cycling, to work, to school and to transport hubs. This is active transport which contributes to health and fitness.

This vision includes a segregated network of bike lanes and making journeys safer and healthier and turning the Harrogate Cycle Tube Map from orange to blue.

Using good examples from abroad, development of routes use the principles of Copenhagen where cycle lanes are tested for three years with low cost construction (paint and concrete barriers). After this time, if the route is well used the lane is installed properly.

A Section 106 Agreement is a planning option where the developer funds projects outside of the site for community benefit. Harrogate Borough Council has a significant programme of house building for the next decade (669 houses pa). Using these Section 106 Agreements, a connected cycle network development could be quickly progressed.

Harrogate & Knaresborough is hilly and the majority of its visitors are over the age of 55. Provision of electric bikes that makes the hills less of a challenge provides an option of sustainable travel for the less fit. Commuting by bike is also less exerting on an electric bike and an option for workers without showers at work.



Cycle Streets Journey Planner: Scenarios	Number of Cyclists	Tonnes of CO2 emissions reduction per 10,000 commuters/per year	Tonnes of CO2 in Total	Source	Details
Current Cycling to Work	2.5%			Census (2011)	Harrogate & District area figures
Government Target	5.1%	-45	-312		"Government Target, which assumes that cycling levels double nationally, and uses trip distance and hilliness to predict which trips would switch.
Gender Equality	4.2%	-28	-193		Gender Equality, in which women have the same propensity to cycle a given trip as men.
Go Dutch	17.3%	-191	-1333		Go Dutch draws on Dutch Travel Survey data to estimate what cycling levels one would observe if England acquired Dutch cycling infrastructure and Dutch cycling culture, but kept its current trip distances and hilliness.
E- Bikes	25.1%	-404	-2812		Ebikes takes Go Dutch even further, and uses additional data on how ebike ownership encourages longer trips and overcomes hilliness."

Source: Propensity to Cycle Tool (PCT) project map included The Guardian 2017. All figures are specifically for Harrogate & District



A vision of a Victoria Avenue Harrogate. The current situation of three lines for parking and two lanes of traffic.

## VISION FIVE: PRIORITISE ACCESSIBLE GREEN SPACE

A significant part of the reputation of Harrogate & Knaresborough is based on the quality of the green space in and around the towns. Accessible green space is especially valuable with areas like the Stray and Nidd Gorge because they are used day to day by a large number of residents & visitors.

Places like Nidd Gorge, the Pinewoods, Conyngham Hall, the Stray and Riverside walk in Knaresborough are more than just a pretty landscape, they are an economic asset and a reason to visit. The visitor's contribution to the local economy is one of Harrogate Borough Council's areas of growth.

The Commission for Architecture & the Built Environment (CABE, 2005) assessed the impact on property prices based on proximity to green space in their report 'Does money grow on trees?'. For a Georgian Square in Bristol the proximity to green space added a value of 16% to house prices.

The green space also provides environmental services including mitigation of air pollution, carbon storage, control of surface water and flood protection. These benefits can now be given an economic assessment through software packages such as i-Tree and should be included in a cost-benefit analysis of any relief road.



West Park, Harrogate. Part of the protected 200 acres in Harrogate that forms the Stray.



The Nidd Gorge from the old railway bridge on the popular Nidderdale Greenway cycle path

## VISION FIVE: PRIORITISE ACCESSIBLE GREEN SPACE - RECONNECTING THE STRAY

The Stray is a large area of green space created and protected by law in 1770. The intention of the space was to connect High Harrogate and Low Harrogate and enable access to the wells in both areas. Under The Stray Act this green space must be 'forever remain open and unenclosed' and be 200 acres. Any land removed must be replaced elsewhere, within the body of the Stray.

Today the Stray is divided by the A61 and A59 and is bounded in many areas by parked cars, most of which are avoiding parking costs in the town centre. Pedestrian access across the Stray is impeded by traffic with many of the pedestrian crossings being located some distance from the natural line of the paths. There are some cycle routes along the Stray which form key routes particularly for local schools but not all these have safe crossing points across the main roads.

In this Vision for 2035 the Stray is expanded around Trinity Church to:

- Retain its connectivity between High and Low Harrogate as originally envisaged
- Highlight one of the landmarks of the Stray
- Ensure the landscape character of the Stray is enhanced not detracted by free on street parking
- Allow more space in other areas of the Stray for cycle paths by adding land for the Stray where there is space
- Make use of the quiet, broad roads for pedestrians and cyclists
- Ensure the success of park and rides schemes. They are most successful in association with reduction of in town parking, particularly long stay. These areas could be the first to change. (Atkins W S 1998)
- Increased revenue to Harrogate Borough Council directly through paying to park or indirectly through using public transport.

Parking Survey: 17 March 2017

- 1) 299 cars parked around Trinity Church
- 2) 81 cars parked on Stray Rein & St James Avenue

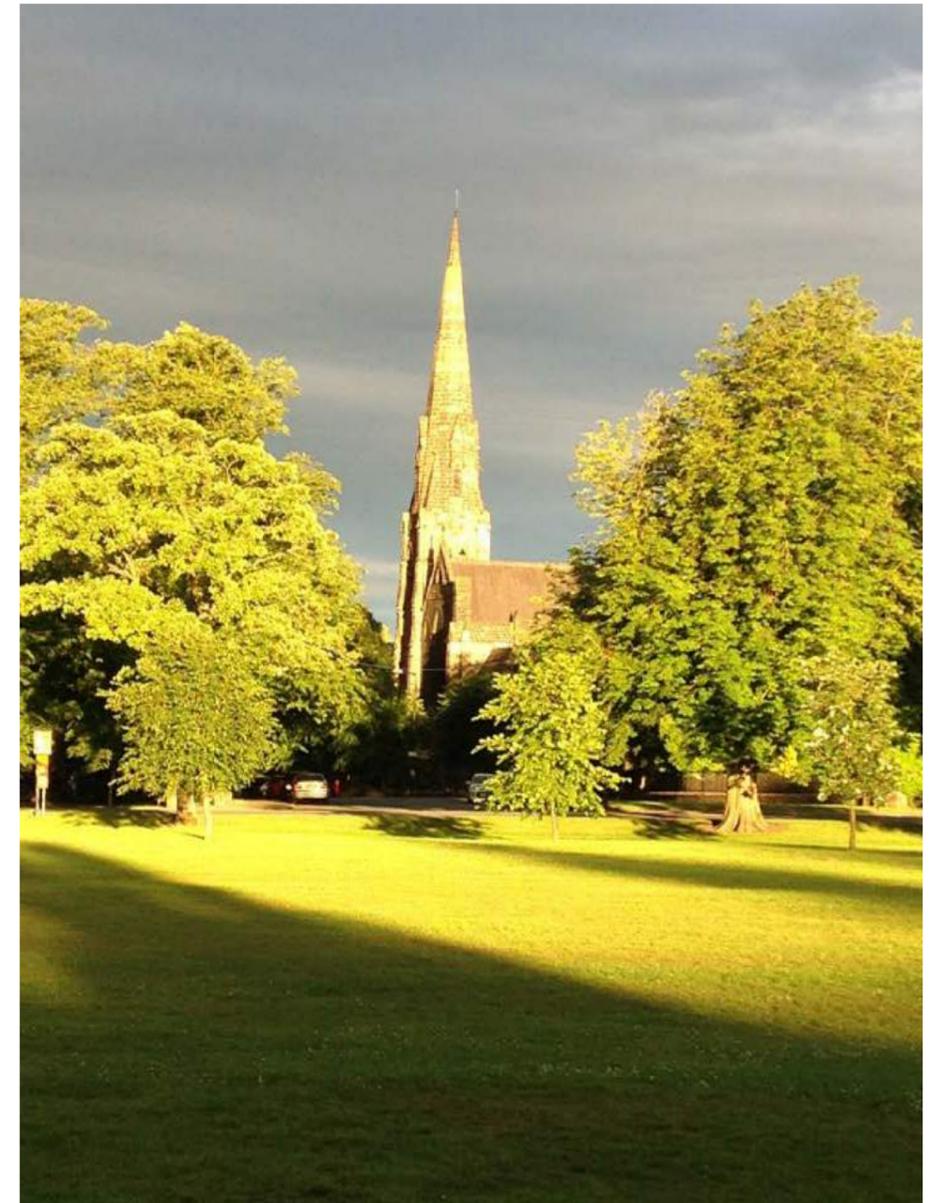
Loss of Parking fees to Harrogate Borough Council (assuming vehicles are parking all day for work):

380 cars x £4.80 long stay parking fees = £1,824 per day

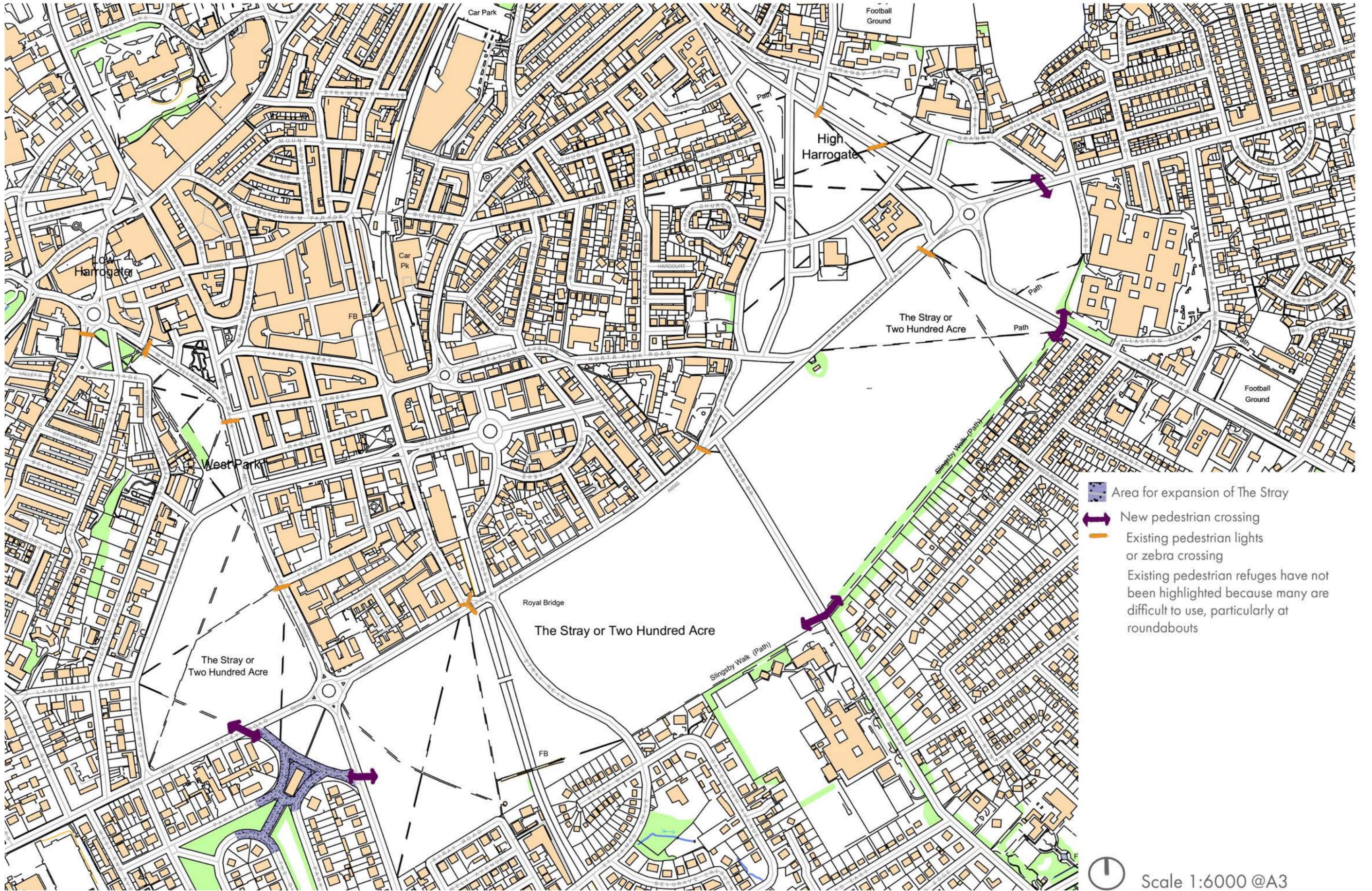
Loss of revenue to public transport & local employment (assuming one person in a vehicle):

Day return to Leeds on the train £9.60

380 potential passengers x £9.60 = £3,648 per day.



Trinity Church - a landmark on The Stray.



## VISION SIX: HARROGATE GOLD ROUTE

The heart of the economy of Harrogate is the business visitors to the Convention Centre. The experience of the visitors from the moment they step off the train to arriving at their conference must be positive.

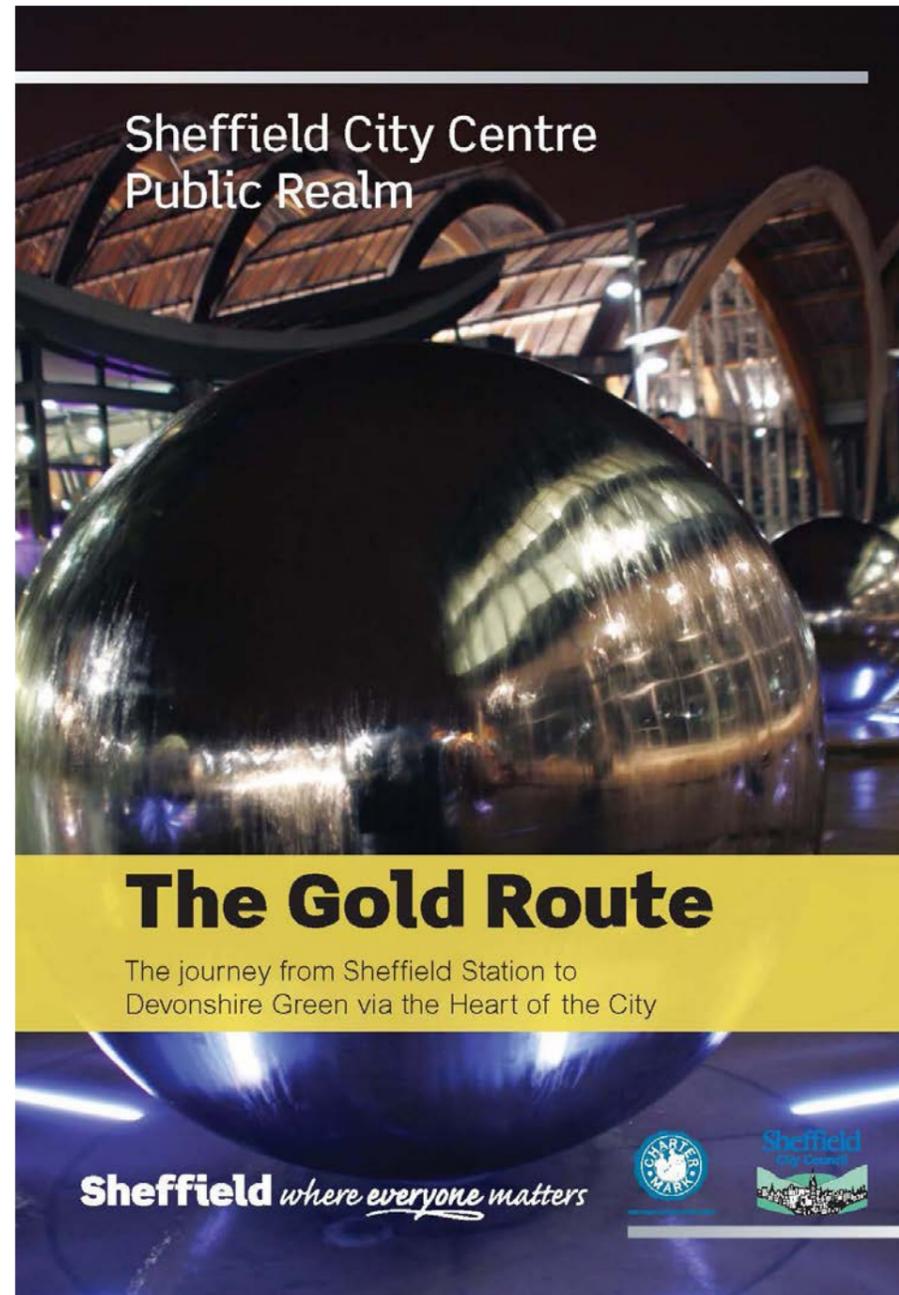
Using Sheffield's excellent example of urban realm design, Harrogate needs a Gold Route for pedestrians to guide them from the transport hubs of the railway and bus station to all the entrances around the Convention Centre and the Royal Hall.

Implementing the existing Harrogate Town Centre Strategy and Masterplan (Environmental Associates 2016) is a key step towards this vision.

The division of space in the roads immediately surrounding the Convention Centre, Exhibition Halls and Royal Hall needs to consider the priorities. The conference visitor and audiences at the Royal Hall want to spend time networking and socialising in a pleasant environment. At the moment the public realm around these areas is disconnected from the historic heart of Harrogate by the A61 (multiple pedestrian crossings required to cross the Parliament Street junction). There is no encouragement to stop and talk. A new division of space is required.



Oxford Circus: Pedestrian Priority Crossing  
Source: Cheetham M & Westminster City Council from flickr.com



Source: Welcome to Sheffield

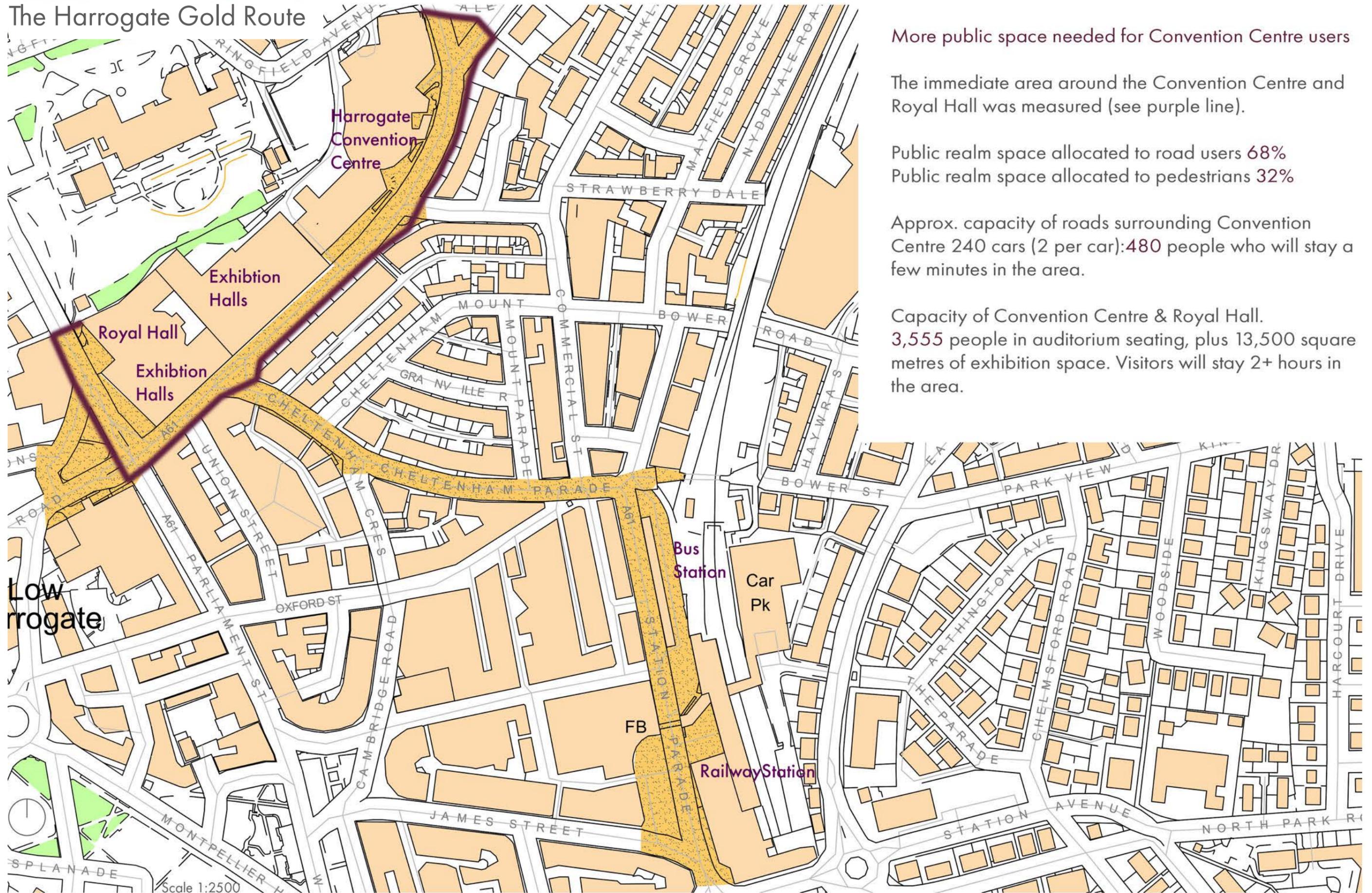


The conference visitors first view of their destination following the recommended route.



Space outside the main exhibition hall.

# The Harrogate Gold Route



More public space needed for Convention Centre users

The immediate area around the Convention Centre and Royal Hall was measured (see purple line).

Public realm space allocated to road users 68%  
Public realm space allocated to pedestrians 32%

Approx. capacity of roads surrounding Convention Centre 240 cars (2 per car): 480 people who will stay a few minutes in the area.

Capacity of Convention Centre & Royal Hall.  
3,555 people in auditorium seating, plus 13,500 square metres of exhibition space. Visitors will stay 2+ hours in the area.

Low Harrogate

Scale 1:2500

Source: Digimap. Ordnance Survey Crown copyright reserved.

## VISION SEVEN: CAR CLUBS

Car clubs allow people to access a car occasionally in a community run scheme. Vehicles are provided around the town for hire on an hourly rate, half day or day rate.

Providing low emission electric powered vehicles with charging points would not only help air quality but also help supplement the electric charging network. Currently there is a 'Yorkshire gap' of charging facilities.

The Bishop Sutton Car Club is an interesting example of residents and visitors having access to a hired vehicle. For visitors coming to Harrogate and Knaresborough, sustainable tourism could be offered with this model. Arrive by public transport but have access to a vehicle for an hour, half day or a day to explore the villages of the district and the Dales.

For residents, access to a car club allows new developments to be designed with less space allocated to vehicles and parking and more of the precious land resource allocated to housing. This benefits the community as a whole, particularly if alternative sustainable routes are built into the new designs as standard.



**Bishop Sutton Car Club**

home how to book prices paperwork t's & c's contact links

### Welcome To The Bishop Sutton Car Club

In conjunction with Chew Valley Caravan Park, the multi-award winning park hidden in the village, we now have a car which is available for a modest fee at any time.

You don't have to sign up or become a member, there are less than a dozen questions on the insurance form (that you only have to fill out once) & you can phone or email your booking whenever you want the car.



The car is a Citroen C2, a compact, three-door town car with air-conditioning & central locking, ideal for navigating to local villages, cities & attractions.

When it's not in use, the car is parked at Chew Valley Caravan Park.

The insurance criteria are very simple & the main rules are that the driver must...

- be over 21 & under 75,
- have held a full UK driving licence for at least one year,
- have no more than one endorsement in the last five years, &
- have no more than one claim or accident in the last five years.

Source Bishop Sutton Car Club

## PART TWO: COMMUNITY CONSULTATION ONE



At a Futures Forum Meeting about Sustainable Transport in Harrogate the audience was asked to write any issues relating to travel problems on red cards and any ideas or opportunities on white cards. These cards were placed on the maps of Harrogate or Knaresborough by the participants.

Photographs of the outcomes from the consultation are included in this section. In order to make the document file size small enough to email, the resolution of the photographs of the results of the consultation have been reduced. The text on the cards have been typed up, verbatim.

The original maps can be made available, if required, as high resolution photos or in paper form.



# HARROGATE: PLACES OF CONCERN

1. Park & Ride (A61 Leeds Road Pannal). (A Solution)
2. Awful surface for cyclists-Leeds Road from Pannal to Garden Centre (A61).
3. School Run - children coming from Leeds to school in Harrogate.
4. Attitudes! Think foot/cycle first! Car last resort (Hookstone Road/A61 Junction).
5. Link existing cycle paths - Harrogate Showground, to Rudding, to Spofforth, to Wetherby.
6. Park & Ride at Showground.
7. Wetherby Road very dangerous for cyclists.
8. Constant congestion on Knaresborough Road, no bike provision, traffic idling at level crossing.
9. Switch off engines and re-signalling. (Starbeck Level Crossing)
10. Bridge; need. (Starbeck level crossing).
11. Cars parked in cycle lane (Oatlands Drive, by the Stray).
12. Speeding (East Parade, Dragon Parade).
13. Taxi rank/companies -continuous pollution whilst idling while occupied (Cambridge Road).
14. Traffic chaos (Skipton Road).
15. Enforce 20mph on Cold Bath Road.
16. Traffic noise and pollution (Valley Drive).
17. Do something about the Cornwall Road race track.
18. Paying 90% of a return fare for a single fare - just pay per mile (*unclear comment*). Presumably a bus reference.
19. Car drivers lack of consideration for cyclists (Pot Bank)
20. No bus services any longer (A59 at Chain Lane Bar)
21. No bus service any longer. Also old footpath has been allowed to disintegrate.(Lund Lane)
22. Cuts to 24 bus services to Pateley Bridge.
23. Slow moving traffic not allowing traffic out from side road (Knox Avenue to Skipton Road)
24. Rail Halt (Claro Industrial Area & Harrogate High School).
25. No verges/paths for pedestrians/runners (Penny Pot Lane).



Harrogate: Image not scaled

## KNARESBOROUGH: PLACES OF CONCERN



Knaresborough: Image not scaled.

1. Exhaust filters and urban street filters.
2. Access from car parks to town centre.
3. Knaresborough speed on A59 remove race track. First class cycle lane cannot be accessed from High Bridge safely. (Badgers Hill to High Bridge).
4. Pollution (Bond End).
5. 20mph on High Street.
6. Rail Halt (East of Knaresborough)

# HARROGATE: SOLUTIONS & OPPORTUNITIES

1. Cycle Route Harrogate to Leeds (Leeds Road at Pannal)
  2. Clean Air Corridor; electric buses, bicycles & electric taxis only. (Cold Bath Road).
  3. Change or modify the Stray Act of Parliament to allow joint use cyclist/pedestrian routes on Wetherby Road.
  4. Widen bike routes on Wetherby road, use side paths.
  5. No unnecessary idling (problem) Prince of Wales roundabout.
  6. Trains - at least one early train on Sunday.
  7. Harrogate High School needs more direct path to St Roberts (indicated on map)
  8. Cycle route on Beech Grove.
  9. Pedestrianise outside bus & train station
  10. Electric Car Club in town centre.
  11. More bike parking spots in town.
  12. Get timing devices on traffic lights. For cars turn your engine off.
  13. Traffic lights; linked timing (Parliament St & Cheltenham Parade)
  14. Slope onto busy road (danger for young children). (Junction of Kingsley Rd with Kingsley Drive).
  15. All new homes have secure cycle storage (Skipon Road A59).
  16. Displays outside schools that show pollution levels and number of car journeys to start to inform and change attitudes.
  17. Electric bikes - work with local bike shops (unclear) & North Yorks to supply ebikes to big companies for their employees to use.
  18. Car share club (preferably electric or hybrid vehicles) for Harrogate & Knaresborough.
  19. Park & Ride on A1 at Flaxby to Harrogate & York. People can cycle from Boroughbridge to Flaxby.
  20. Electrify Leeds-Harrogate-York train line and increase service frequency.
  21. Even without electrification at least double the frequency of the existing Leeds-Harrogate-York Trains.
- Other direct marks on map;  
 Bridge at Starbeck rail/road junction.  
 Train stop (Claro industrial area & Harrogate High School).



Harrogate: Image not scaled

## KNARESBOROUGH: SOLUTIONS & OPPORTUNITIES



Knaresborough :Image not scaled.

1. Hydro green power (at weir).
2. Helping/enabling everyone to care about this. (Area of Forest Moor road).
3. Cliff lift (from Waterside by the Castle).
4. Railway halt for Calcutt
5. Encourage children to attend the nearest school and reduce the school run.
6. More footpaths (Bond End)
7. Shuttle Train (East of Knaresborough).

## COMMUNITY CONSULTATION TWO: HARROGATE

At a Zero Carbon Harrogate Meeting members of the group were asked to detail local knowledge of travelling around Harrogate & Knaresborough (on separate maps) with good elements and places with issues highlighted. Most of the participants were regular cyclists and a pattern of the routes used was marked up.

Scanned maps of the outcomes from the consultation are included in this section. They can be provided in the A0 original size, in paper or high resolution digital form.

Issues marked with an X (from left to right)

1. Competing bus services (Connexions & Transdev) have buses spaced a few minutes apart rather than evenly spaced. Unreliable service & infrequent. (Otley Road).
2. Difficulties for pedestrians crossing at roundabouts. (Prince of Wales & Christchurch Roundabouts).
3. Congested trains especially if there are only two carriage trains at peak times. Two carriage trains have standing room only from Pannal Station. Passengers at Leeds Stations unable to get on.

Wishlist:

Urban train service with additional halts, including park & ride schemes.

Good routes for cycling (existing and potential):

Beech Grove, Queens Road, Lancaster Road, across West Park. Pannal Ash Road, Rossett Drive, Cold Bath Road, Centre of Valley Gardens & path West to Harlow Carr.

East Parade, Bower Road, Mayfield Grove, Franklin Road, Kings Road, Grange Avenue, Unity Grove, Roberts Crescent, Bridleway connecting Skipton Road to St Johns Way, King Edwards Drive, Hill Top Lane, Crab Lane, Knox Lane, Bilton Lane (connecting to Knaresborough via cycle route), Nidderdale Greenway.

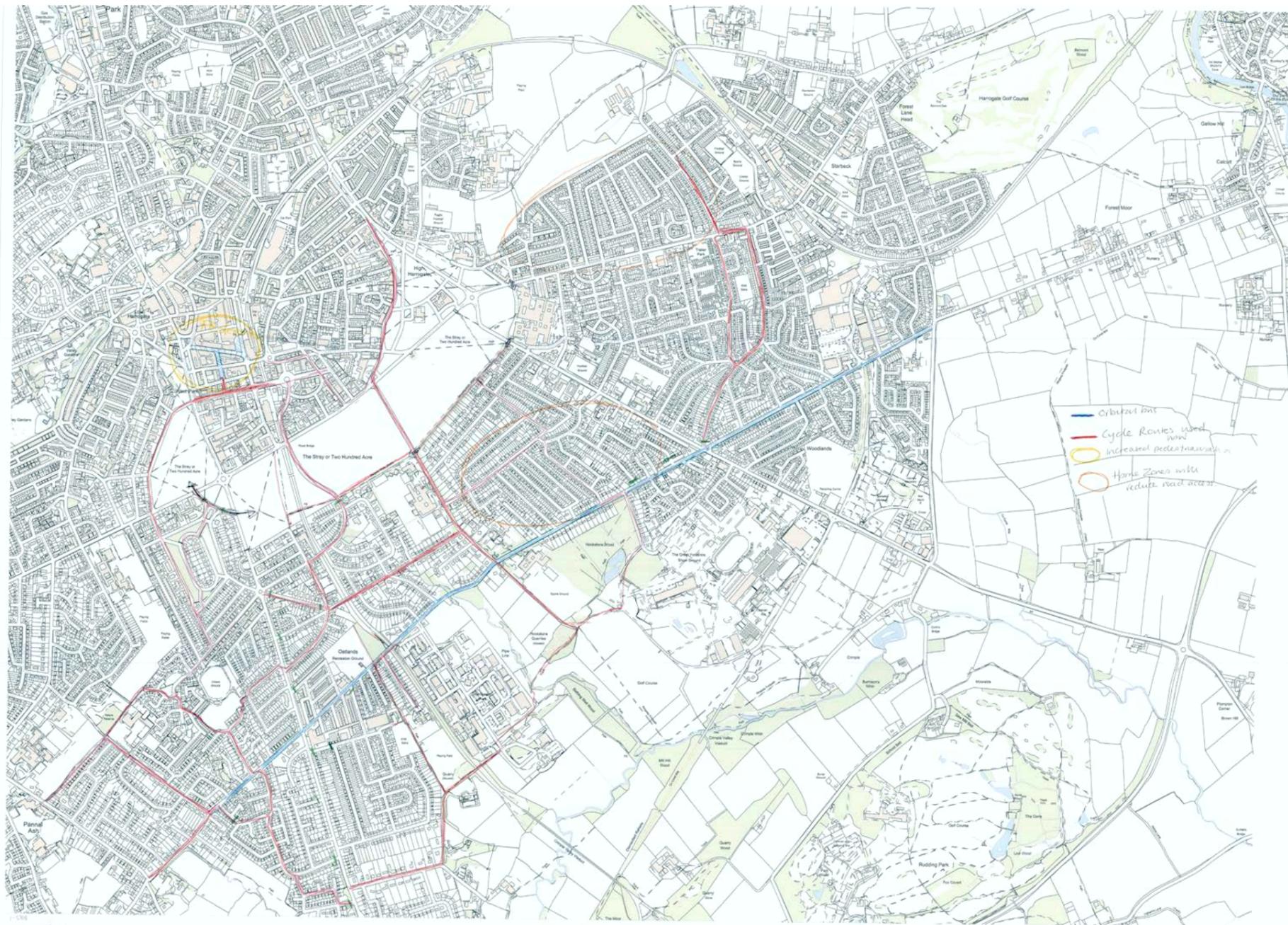
Knox Lane, Bridle Way to Cow Dyke Farm and Skipton Road. Norwich Drive, Jennyfields Drive cycle route, Burdock Close & Cornflower Way.

Harcourt Drive to Park Parade Ginnel, Path across the Stray (lights cross A59), Granby Road, Silverfields Road, Anchor Road, Kingsley Drive, Kingsley Road, Bogs Lane.



Harrogate: Image not scaled

## COMMUNITY CONSULTATION TWO: HARROGATE



29/1/17  
Zero Carbon Harrogate Meeting  
Local Cycle Routes & Transport Wishlist  
Map for Harrogate.

Harrogate: Image not scaled

### Wishlist:

- Make the connections across the Stray stronger for pedestrians by having crossings at junctions of paths and roads.
- Orbital bus route for Knaresborough Road & Hookstone Road.
- Home Zones with reduced access points and slower speeds for areas including Bilton, The Saints, around Cold Bath Road, Oatlands & Tewit Well area.
- Expand the Stray around the Oval and Trinity Church to allow for more options elsewhere in the Stray.
- Increase the pedestrianised area around in the town centre.

### Good routes for cycling (existing & potential):

Beech Grove, Victoria Avenue, Stray Rein, Park Road, The Oval, Slingsby Walk, St James Drive, Langcliffe Avenue, Tewit Well Road, Norfolk Road, Around the Cricket Pitch, St Georges Road, existing cycle route from St Georges to Ashville School, Rossett Drive, Mallinson Way, Leadhall Crescent, Firs Crescent, Daleside Road, Stone Rings Lane, Fulwith Mill Lane leading to a cycle path, cycle path past Oatlands Allotments. Beechwood Grove.

Hookstone cycle route (including The Coach Road) and connections to Yorkshire Show Ground, Oatlands Drive, St Hildas Road, St Leonards Road, St Winfreds Road, Hookstone Woods Road. York Place, Homestead Road, South Park Road, & North Park Road. Park Parade,

Woodlands Drive, Wedderburn Avenue, Kingsley Drive.



## CONCLUSION



Victoria Avenue: Before & After



The seven visions describe how infrastructure changes can reduce congestion while enhancing the historic landscape character of Harrogate & Knaresborough.

These visions have to be made in conjunction with a funded programme to increase the awareness of sustainable transport choices. Making the benefits clear as a reason to change travel patterns is vital.

Through sustainable transport improvements, many small positive changes in travel patterns by individuals within the district can collectively make significant improvement to congested roads and carbon emissions. While this is significant in solving the current motor congestion issues its real value is in creating a long term better quality of life in Harrogate and Knaresborough for everyone.



Beech Grove: Now and merged with an Amsterdam street scene.

These visualisations are created using examples from other urban areas. They are suggestions rather than specific road layouts which requires the expertise of traffic engineers and others.





Parliament Junction: Before & merged with a scene from Edinburgh's Royal Mile.





Exhibition Hall & Royal Hall Entrance: Before & merged with a view of Kings Cross Station entrance.





Oatlands Drive by St Aidan's School: Now and merged with an cycle lane image from Amsterdam.

All photos are by Anna Gugan unless indicated otherwise below.

ARUP . 2011 'Harrogate Borough Council Climate Change Action Plan Report' [ONLINE] [https://www.harrogate.gov.uk/site/scripts/google\\_results.php?q=climate+change+report](https://www.harrogate.gov.uk/site/scripts/google_results.php?q=climate+change+report). [Accessed 26 June 2017].

Atkins WS 1998 cited in Konsult. 2005. Park and ride evidence. [ONLINE] Available at: [http://www.its.leeds.ac.uk/projects/konsult/private/level2/instruments/instrument035/12\\_035c.htm](http://www.its.leeds.ac.uk/projects/konsult/private/level2/instruments/instrument035/12_035c.htm). [Accessed 26 June 2017].

Bishop Sutton Car Club. 2017. Bishop Sutton Car Club. [ONLINE] Available at: <http://www.bishopsuttoncarclub.co.uk/>. [Accessed 26 June 2017].

CABE. 2005 Does money grow on trees? [ONLINE] Available at: <http://webarchive.nationalarchives.gov.uk/20110118110609/http://www.cabe.org.uk/files/does-money-grow-on-trees.pdf>. [Accessed 26 June 2017].

Cycling UK.org & Rowe J. 2017. Harrogate Cycle Network Quality Map. [ONLINE] Available at: [https://docs.google.com/drawings/d/1Q5go-fAXKyhNiN7\\_E7giK6MOKJa9sHnwATemkmFaps8c/edit](https://docs.google.com/drawings/d/1Q5go-fAXKyhNiN7_E7giK6MOKJa9sHnwATemkmFaps8c/edit). [Accessed 24 June 2017].

Glasgow City Council. 2016. New City Speed Limits. [ONLINE] Available at: <https://www.glasgow.gov.uk/index.aspx?articleid=19256https://www.glasgow.gov.uk/>. [Accessed 26 June 2017].

Harrogate Borough Council. 2001. Chapter 2:context Harrogate Borough Council. [ONLINE] Available at: [https://www.harrogate.gov.uk/downloads/file/180/chapter\\_2\\_context](https://www.harrogate.gov.uk/downloads/file/180/chapter_2_context). [Accessed 26 June 2017].

Harrogate Borough Council. 2017. Harrogate Town Centre Strategy and Masterplan. [ONLINE] Available at: [https://www.harrogate.gov.uk/info/20100/local\\_planning\\_guidance\\_and\\_spds/545/harrogate\\_town\\_centre\\_strategy\\_and\\_masterplan](https://www.harrogate.gov.uk/info/20100/local_planning_guidance_and_spds/545/harrogate_town_centre_strategy_and_masterplan). [Accessed 26 June 2017].

Harrogate Convention Centre. 2017. Venue Options at Harrogate Convention Centre. [ONLINE] Available at: <https://www.harrogateconventioncentre.co.uk/organisers/our-venues>. [Accessed 26 June 2017].

## REFERENCES & PHOTO CREDITS

Historic Towns Forum. 2009. The effectiveness and sustainability of Park & Ride. [ONLINE] Available at: <http://www.historictownsforum.org>. [Accessed 26 June 2017].

Matt Cheetham Westminster City Council. 2009. Oxford Circus Crossing. [ONLINE] Available at: <https://www.flickr.com/photos/watchlook-see/4082733839>. [Accessed 26 June 2017].

Outrage at removal of number 24 bus service (2017) **Harrogate Advertiser** 29 June, p.11.

PCT. 2017. Welcome to the Propensity to Cycle Tool. [ONLINE] Available at: <http://www.pct.bike/>. [Accessed 26 June 2017].

The Guardian. 2017. How much could commuter cycling increase in your part of England. [ONLINE] Available at: <https://www.theguardian.com/environment/bike-blog/2017/apr/13/how-much-could-commuter-cycling-increase-in-your-part-of-england>. [Accessed 26 June 2017].

Transdev. 2017. The Harrogate Bus Company... Transdev. [ONLINE] Available at: [http://harrogatebus.co.uk/fares/TheHarrogateBusCompany/DayPeriodAnd12-journeyTickets\\_11.html](http://harrogatebus.co.uk/fares/TheHarrogateBusCompany/DayPeriodAnd12-journeyTickets_11.html). [Accessed 26 June 2017].

Transforming Transport (2017) **Clean Slate** 104 Summer, pp 32-33

Welcome to Sheffield, date unknown, The Gold Route: The Journey from Sheffield Station to Devonshire Green via the Heart of the City [ONLINE] Available at: [www.welcometosheffield.co.uk/content/files/1281](http://www.welcometosheffield.co.uk/content/files/1281) [Accessed 26 June 2017].

Wonford Home Zone. 2017. Wonford Home Zone. [ONLINE] Available at: <http://www.rudi.net/books/8949>. [Accessed 26 June 2017].

www.20splentyforus.org.uk. 2015. 20mph National Urban Limit: A plan for Total 20 by 2020. [ONLINE]. Available at: <http://www.20splentyforus.org.uk> [Accessed 26 June 2017]



**“The shift to zero carbon is actually one of the most exciting opportunities in human history. It offers many benefits as well as cutting greenhouse gas emissions, including cleaner air, affordable, accessible transport, reduced obesity and improved health and happiness.”**

**Clean Slate 2017**

Nidderdale Greenway near Bilton