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March 2012

DTPC

**LAND AT BARROW BROOK, BARROW,
PROPOSED DEVELOPMENT FOR B1C/B2 INDUSTRIAL USES**

TRANSPORT STATEMENT

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Transport Statement

CONTROLLED DOCUMENT

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PROPOSED DEVELOPMENT FOR B1C/B2 INDUSTRIAL USES**

Transport Statement

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1. INTRODUCTION

DTPC has been appointed on behalf of Avalon Planning to provide transport and highway advice for the traffic and transportation implications associated with the proposed Industrial development at land at Barrow Brook, Barrow off North Road.

The application relates to a site located in a semi rural area, previously unused but with a single access, which will be developed for industrial purposes.

This report provides information on the scope of traffic and transport planning aspects of the development proposals, and forms supplementary information to assist in the determination of the application.

The methodology used is one agreed with the Council Highways Department for other applications in the same development area.

The Transport Statement discusses the following issues:

- Site and Local Area
- Existing Highway Conditions
- Development Proposals
- Government Planning and Transportation Policy
- Sustainability
- Access Considerations
- Trip review
- Summary & Conclusions.

This report has been prepared solely in connection with the proposed development as stated above. As such, no responsibility is accepted to any third party for all or any part of this report, or in connection with any other development

2. POLICY GUIDANCE

National Policy

Increasing travel choice and reducing dependency on car travel is an established aim across all areas of government policy development, documents and guidance alongside addressing climate change and reducing CO₂ emissions. Travel planning to date has focused on reducing single occupancy car use to specific destinations. Recent national guidance has broadened this, outlining the potential for Residential Travel Plans and addressing trips generated from individual origins (homes) to multiple and changing destinations. The Department for Transport (DfT) also published “Smarter Choices – Changing the Way We Travel” focusing on softer education and persuasive measures which are a key element of travel plans.

National planning policy ensuring that development plans and planning application decisions contribute to delivery of development that is sustainable is detailed in PPS1. It states that development should ensure environmental, social and economic objectives will be achieved together over time.

It will also contribute to global sustainability, by addressing the causes and impacts of climate change, reducing energy use and emissions by encouraging development patterns that reduce the need to travel by car and impact of transporting goods as well as in making decisions in the location and design of development. This approach is further detailed in the supplement to PPS1.

Future of Transport 2004

2004, Department for Transport (DfT) published a long-term strategy (*Future of Transport White Paper*) which examines the factors that will shape travel and transport over the next thirty years. It sets out how the Government will respond to the increasing demand for travel, maximising the benefits of transport while minimising the negative impact on people and the environment.

Central to the strategy is the need to bring transport costs under control, the importance of shared decision making at local, regional and national levels to ensure better transport delivery, and ***improvements in the management of the network to make the most of existing capacity***.

Planning Policy Guidance Note 13 – Transport

The revised Planning Policy Guidance Note, PPG13 was published in Jan 2011, the major change was the updated car parking guidance in that councils will no longer be able to apply either maximum or minimum parking standards for residential development (Para 50 (2)).

Para 50 states: In developing and implementing policies on parking, local authorities should:

not require developers to provide more spaces than they themselves wish, other than in exceptional circumstances which might include for example where there are significant implications for road safety which cannot be resolved through the introduction or enforcement of on-street parking controls

and in addition para 52 sets out the need for local parking ratios:

52. There is a need for a consistent approach to maximum parking standards for a range of major developments, above the relevant thresholds. The levels set out in Annex D should be applied as a maximum throughout England, but regional planning bodies and local planning authorities may adopt more rigorous standards, where appropriate, subject to the advice in this guidance. The maximum parking standards set out in annex D do not apply to small developments, that is, those below the

relevant thresholds. **Local authorities should use their discretion in setting the levels of parking appropriate for small developments so as to reflect local circumstances.** By virtue of the thresholds, this locally based approach will cover most development in rural areas.

53. For individual developments, the standards in Annex D should apply as a maximum unless the applicant has demonstrated (where appropriate through a Transport Assessment) that a higher level of parking is needed. In such cases the applicant should show the measures they are taking (for instance in the design, location and implementation of the scheme) to minimise the need for parking.

This policy document contains objectives to integrate planning and transport and describes how transportation issues can be influenced by planning control. Key points of PPG13 are further detailed below.

The objectives of the Guidance are given as being to:

'promote more sustainable transport choices; promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling; and Reduce the need to travel especially by car'.

In order to deliver these objectives, the Guidance recommends suitable considerations that should be made when assessing proposed material trip generating developments, some of these considerations are:

'Actively manage the pattern of urban growth to make the fullest use of public transport, and focus major generators of travel demand in city, town and district centres and near major public transport interchanges; locate day to day facilities which need to be near their clients in local centres so that they are accessible by walking and cycling; ensure that development comprising jobs, shopping, leisure and services offers a realistic choice of access by public transport, walking, and cycling; Use parking policy, alongside other parking and transport measures, to promote sustainable transport choice and reduce reliance on the private car for work and other journeys'.

Furthermore, PPG13 states that:

'Walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres. Walking also forms an often forgotten part of all longer journeys by public transport and car; and cycling also has the potential to substitute for shorter car trips, particularly those less than 5 km and to form part of longer journeys by public transport'.

Guidance on implementing planning policies states:

'Where clearly justified and in accordance with the usual statutory and policy tests, conditions may legitimately be used to require on-site transport measures and facilities as part of development or to prohibit development on the application site until an event occurs, including:

- provision of secure cycle parking and changing facilities and safe pedestrian and cycle routes;
- provision of facilities for public transport, such as bus stops and lay-bys;
- specifying the number of parking spaces, and their size, including those for disabled people;
- the management and use of parking spaces, so that, for example, priority is given to certain categories of people, e.g. disabled people, people with children, visitors, or cars with more than one occupant;
- the removal of parking spaces (other than those for disabled people) after a specified period, or when access to the site is improved by public transport, walking and cycling (such as when a bus route is introduced to a site);
- New or improved junctions and road layouts'.
-

Summary

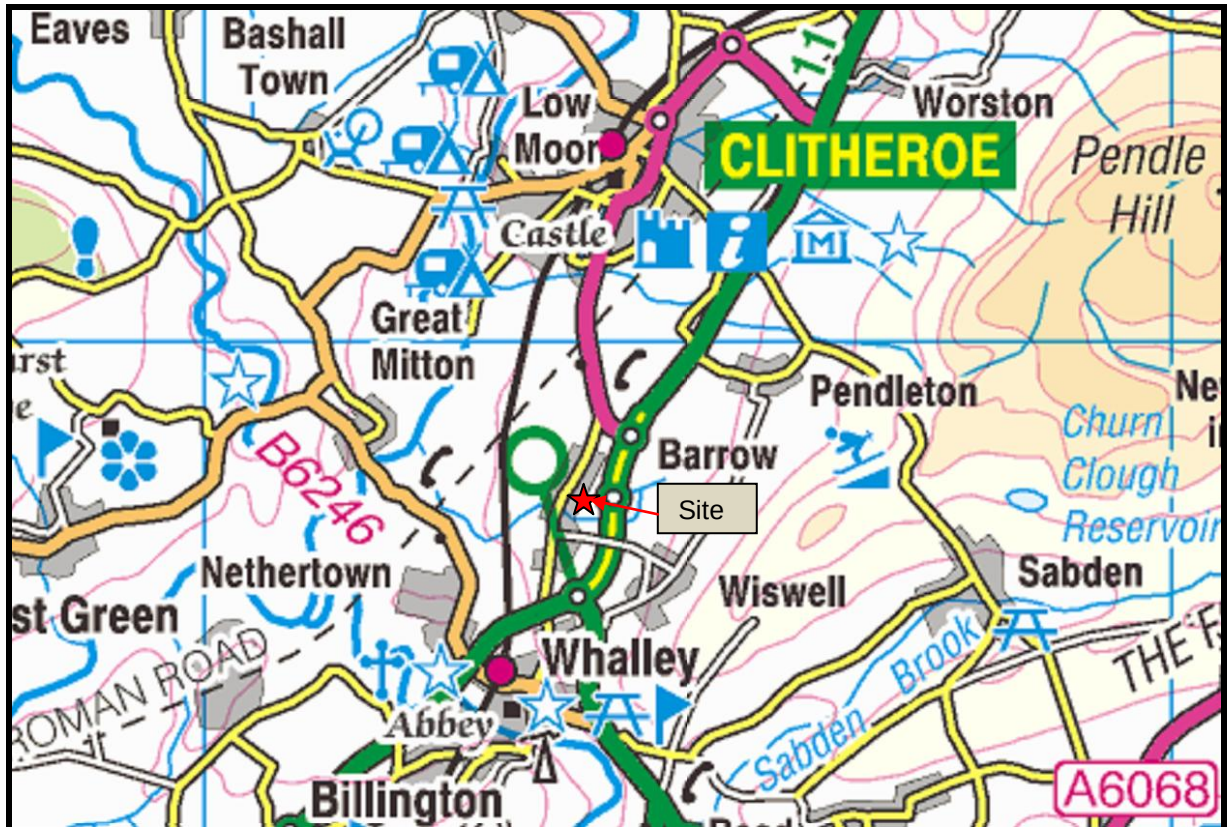
The overriding theme of national policy is that land uses must be accessible by sustainable means of transport and accessible to all members of the local community.

The following chapters of this report will show that the proposed change of use is compliant with local and national policy in this respect.

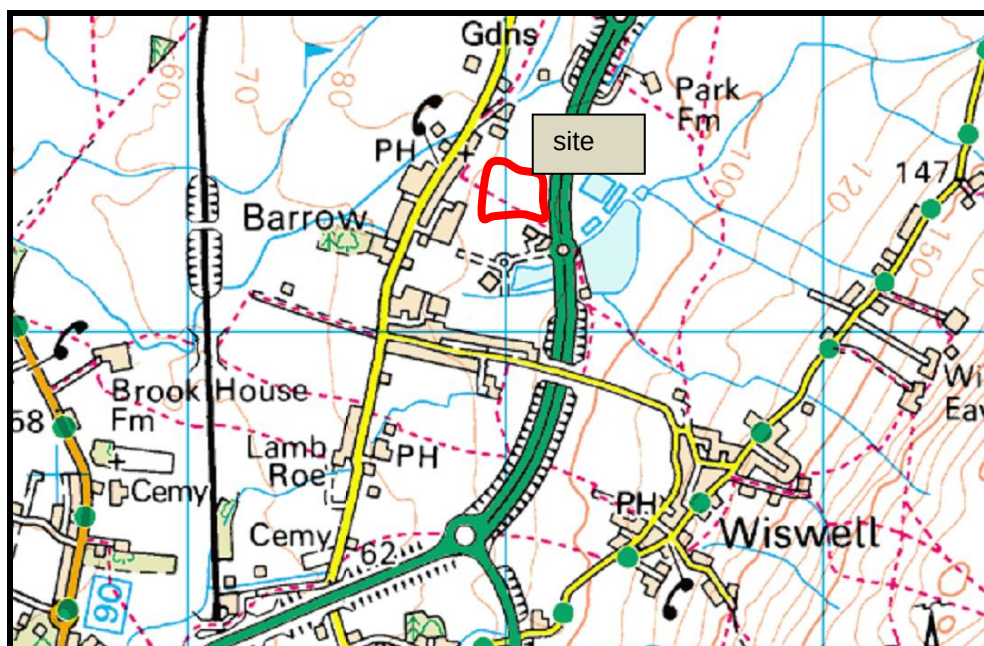
3. SITE DESCRIPTION

Site location context

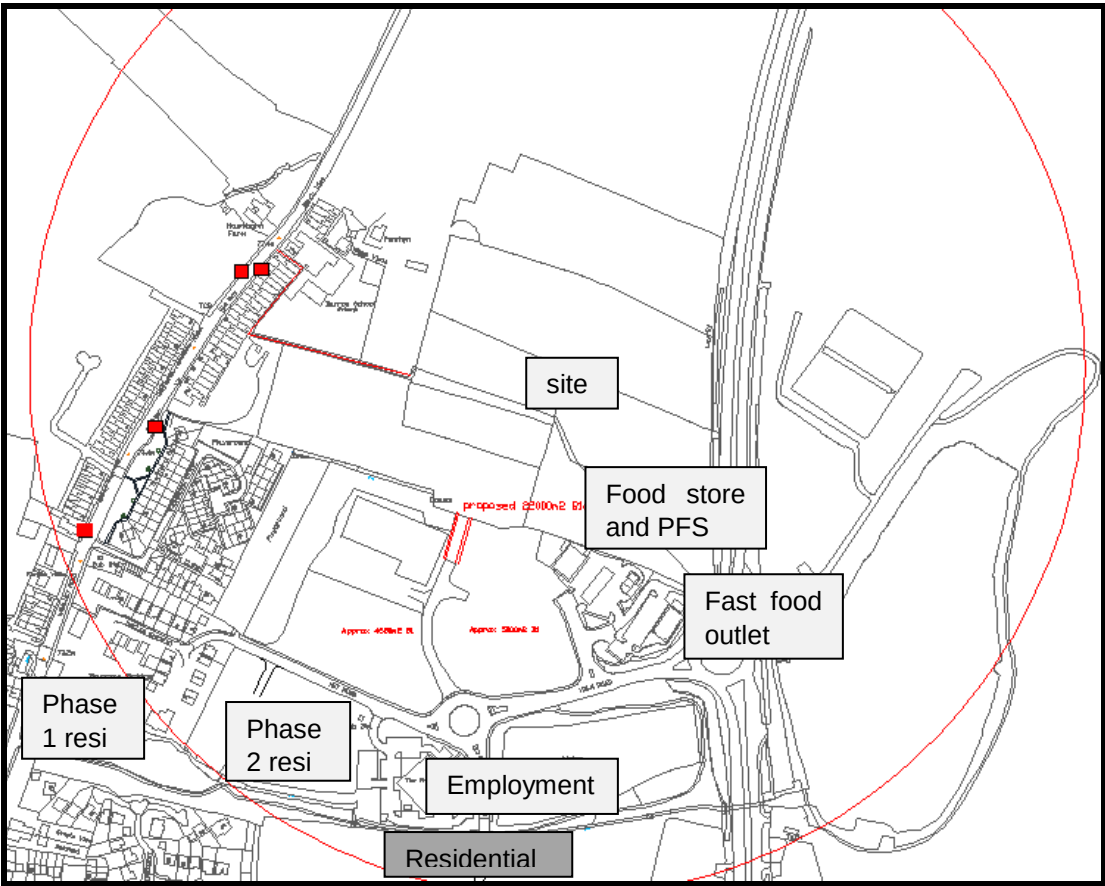
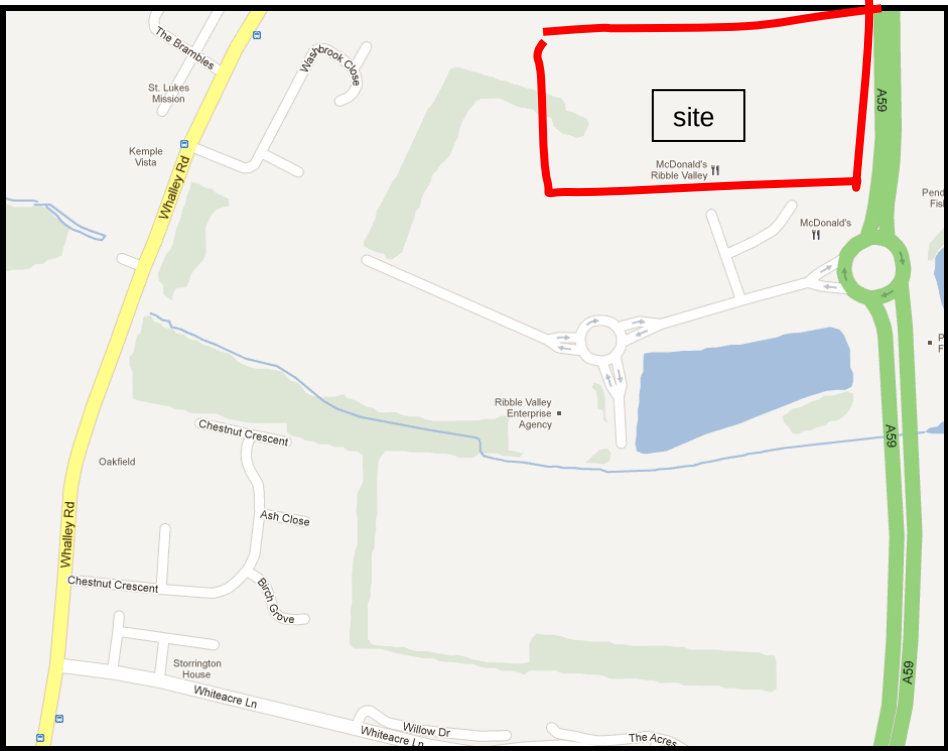
The site lies to the west of the A59 route which runs across the borough in a east west direction and forms part of the primary road network. The site is adjacent to and forms a natural extension to the village of Barrow which lies between Clitheroe and Whalley.



It is access in the form of a cul de sac with a roundabout junction onto the A59.



The site forms in part a previously allocated mixed use development that has slowly come forward for development in a changed manner with approvals given using the roundabout as the primary access. In addition some new land has been brought forward to accommodate the proposed uses.



Site in context with adjacent development

The internal cul de sac area benefits from a high quality highway layout with local facilities and footpaths as shown below.



View along main access road from roundabout



View store/PFS and food outlet.



View to site from Middle Lodge Road

In addition to the adopted footpath routes the site also benefits from a PROW along its westerly edge connecting to the village of Barrow.



Typical view of the PROW along site edge and crossing of brook

The cul de sac joins Whalley Road but only connects directly with a wide footpath route for pedestrians and cyclists.



View of non car route from phase 1 to Whalley Road

The site would therefore form a natural extension of the urban fabric with good access to existing routes and facilities.

4. EXISTING SUSTAINABLE TRAVEL OPTIONS TO THE SITE

It is important to recognise that national Government guidance encourages accessibility to new developments by non-car travel modes. New proposals should attempt to influence the mode of travel to the development in terms of gaining a shift in modal split towards non car modes, thus assisting in meeting the aspirations of current national and local planning policy.

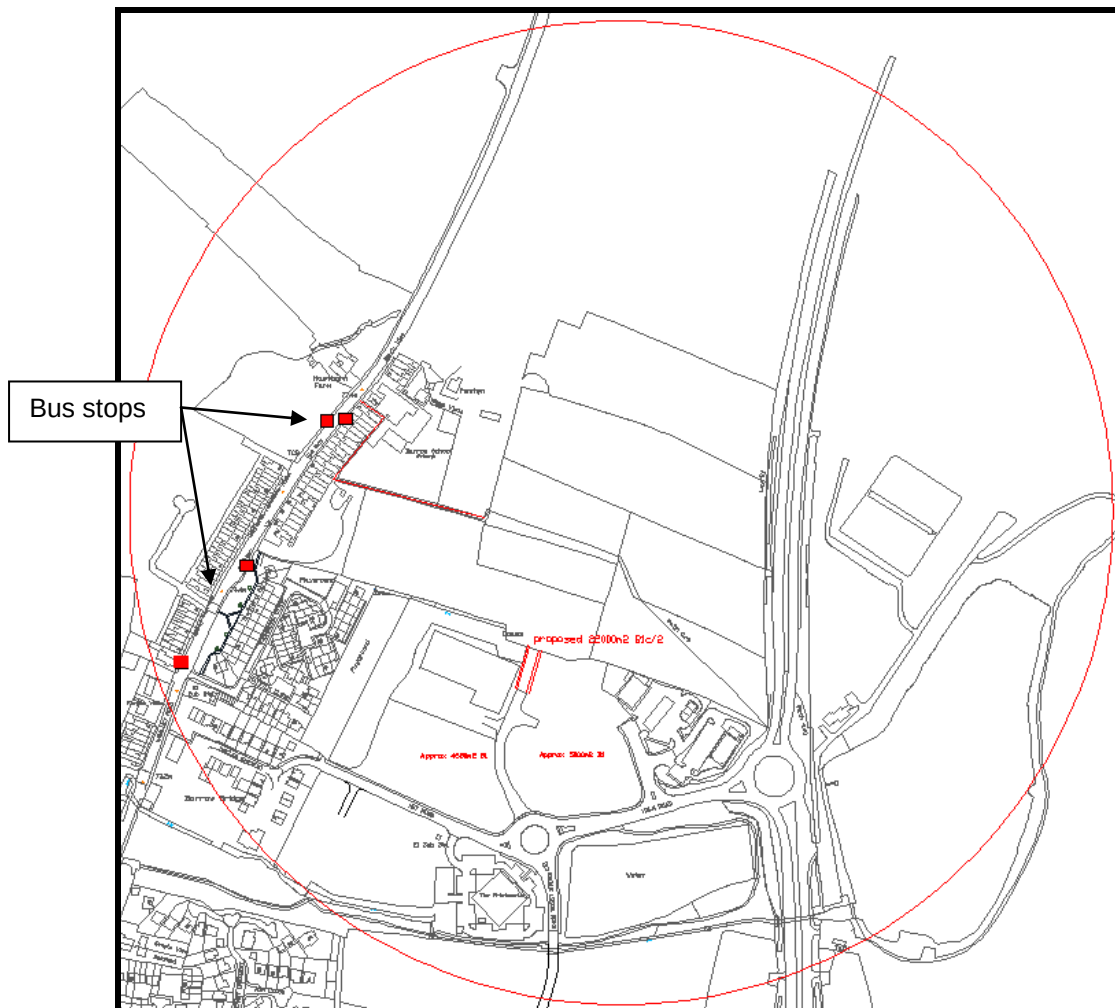
The accessibility of the proposed development sites by the following modes of transport has, therefore, been considered:

1. Accessibility on foot; cycle and public transport;

Walking and cycling

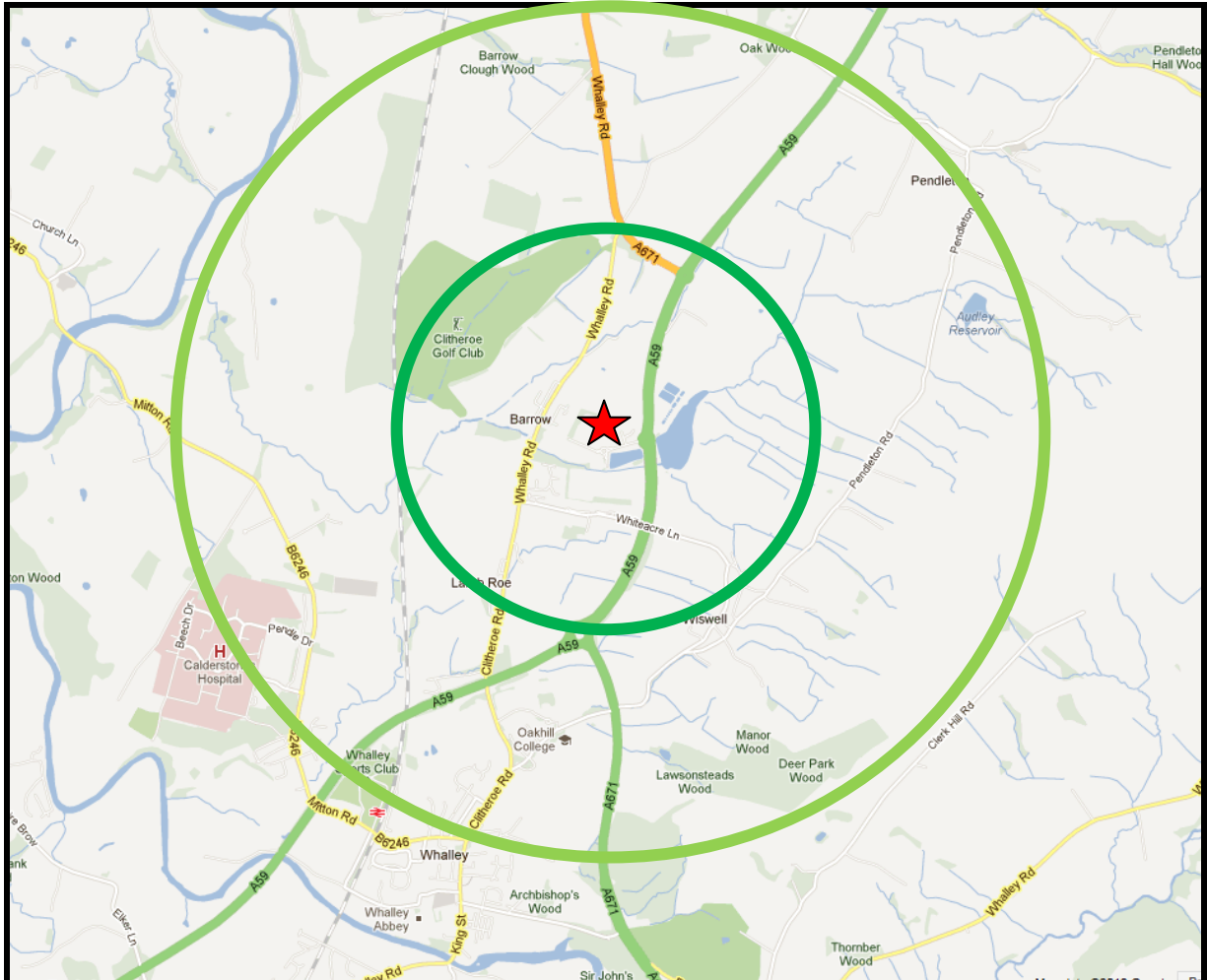
The proposed development site is located within a semi rural area with a range of local land uses, services and facilities.

The OS plan below shows the local footpath routes in red in relation to the proposed site. The red line show the proposed connections to this network.



The westerly side of the site lays within the 400m/5min walk distance to a public transport facility in this case the Whalley Road bus stops.

Experience from good practice in Travel Planning development generally suggests that 90% of pedestrians are prepared to walk up to 2 kilometres between home and workplace, provided that accessible footway routes are identified. The pedestrian catchment area for the proposed development site extends to cover the neighbouring settlements indicated by the dark and mid green circles for 800m and 2 kilometres distances respectively.



Walk Catchments

The topography is relatively flat in nature rises towards the edge of the 2km distance. The walk catchment extends to cover the local and Whalley area employment, shops and other services offered is thus useable by a wide catchment area.

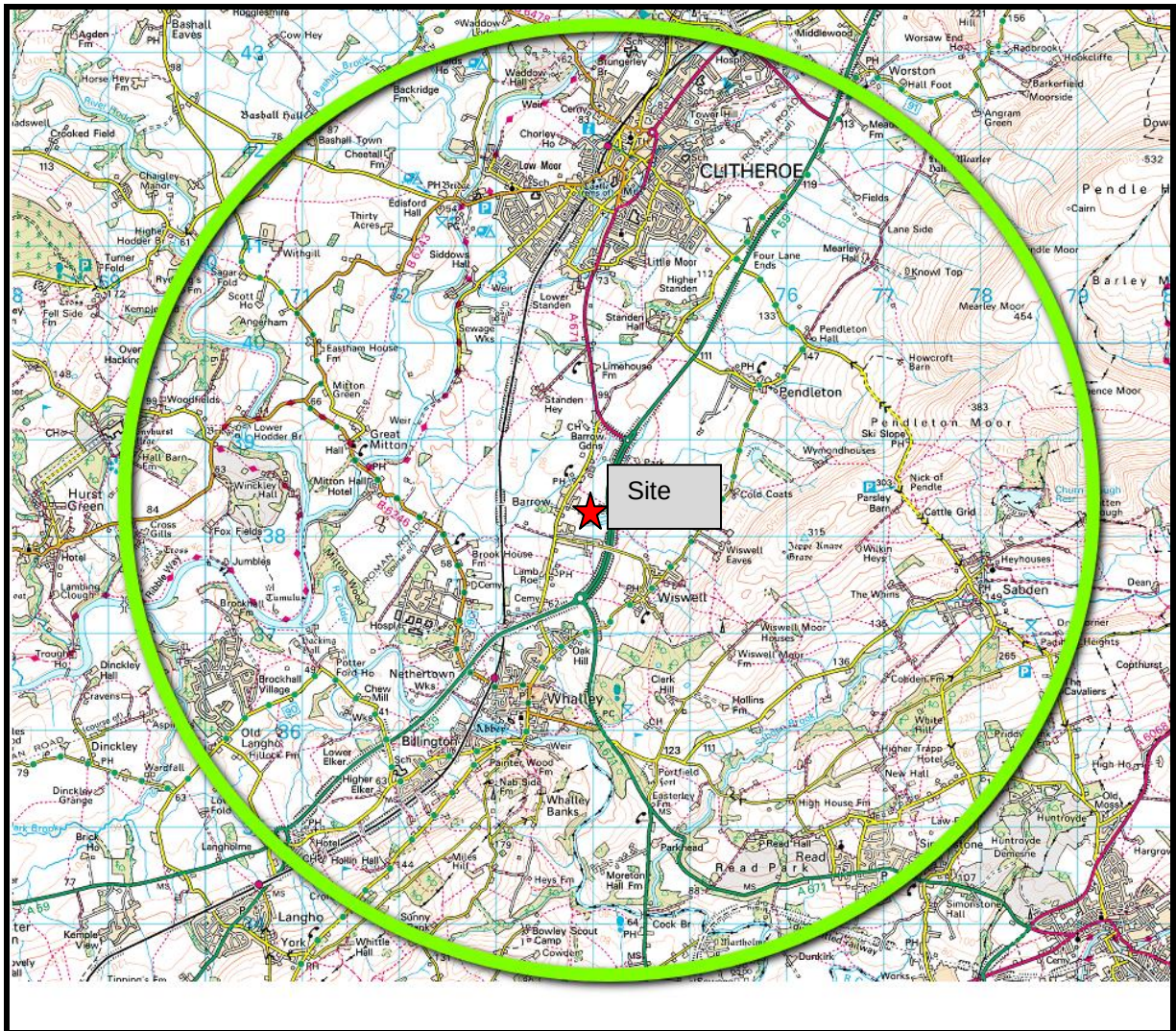
Paragraph 75 of PPG13 states that walking is the most important mode of travel at the local level and offers the greatest potential to replace short car trips, particularly under 2 kilometres, and confirms that walking also forms an often forgotten part of all longer journeys by public transport and car. Clearly, there is also potential for walking to form part of a longer journey via the bus services.

There are existing pedestrian routes in the vicinity of the site that will assist the accessibility of the site for pedestrians.

In conclusion, the proposed application site can be considered as being accessible on foot.

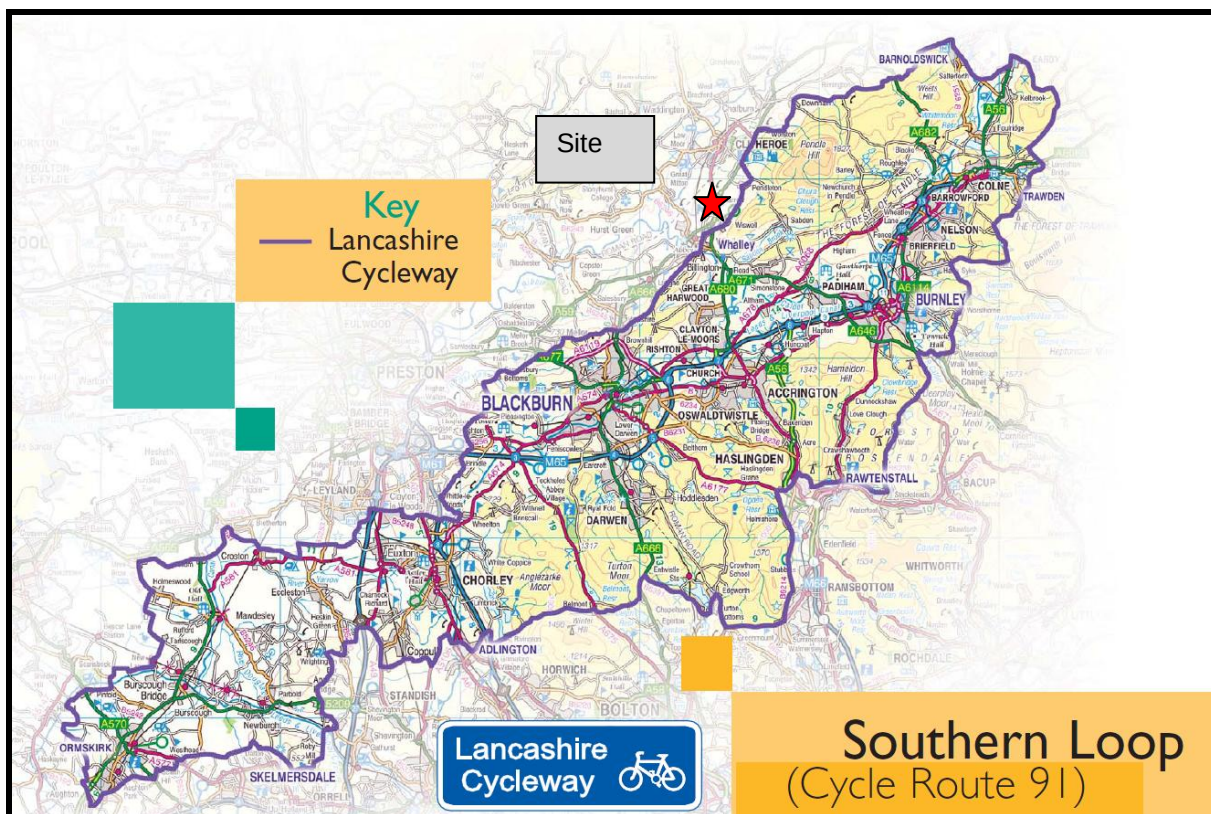
The National Travel Survey NTS (undertaken by the DfT) has identified that bicycle trips are often dependant on the topography and considers a mean distance of between 5 – 10 kilometres a reasonable travel distance between home and workplace. For the purposes of this report the lower national guidance of 5 kilometres will be used shown below, the 10 kilometre distance is seen as one a more experienced cyclists would cover and may be considered to be overly optimistic.

As described in paragraph 78 of PPG13, 'Cycling also has the potential to substitute for short car trips, particularly those under 5 km, and form part of longer journeys by public transport'.



Cycle Catchments

The plan shows that a significant area of mixed use especially Clitheroe and residential uses is within the 5 kilometres cycling distance a journey of around 25 minutes using the Institute of Highways Guidance leisure cycle speed of 12 kilometres per hour of the site.



Local cycle network

The above abstract shows that the site has no local dedicated cycle facilities i.e. on road shared space but this quickly connects to a route 91 designated on road cycle route connecting to the wider NCN.

Therefore, there is a wide range of cycling opportunities for residents to use this mode.

In conclusion, the proposed application site can be considered as being very well served by the cycle network and is therefore highly accessible by cycle.

Travel by public transport

An effective public transport system is essential in providing accessibility for the population to opportunities for work, education, shopping, leisure and healthcare within the Barrow/Clitheroe/Whalley area and beyond.

Whalley Road is indicated as having the closest bus stops to the site flags and markings are present on site, this is indicative of a quality service.

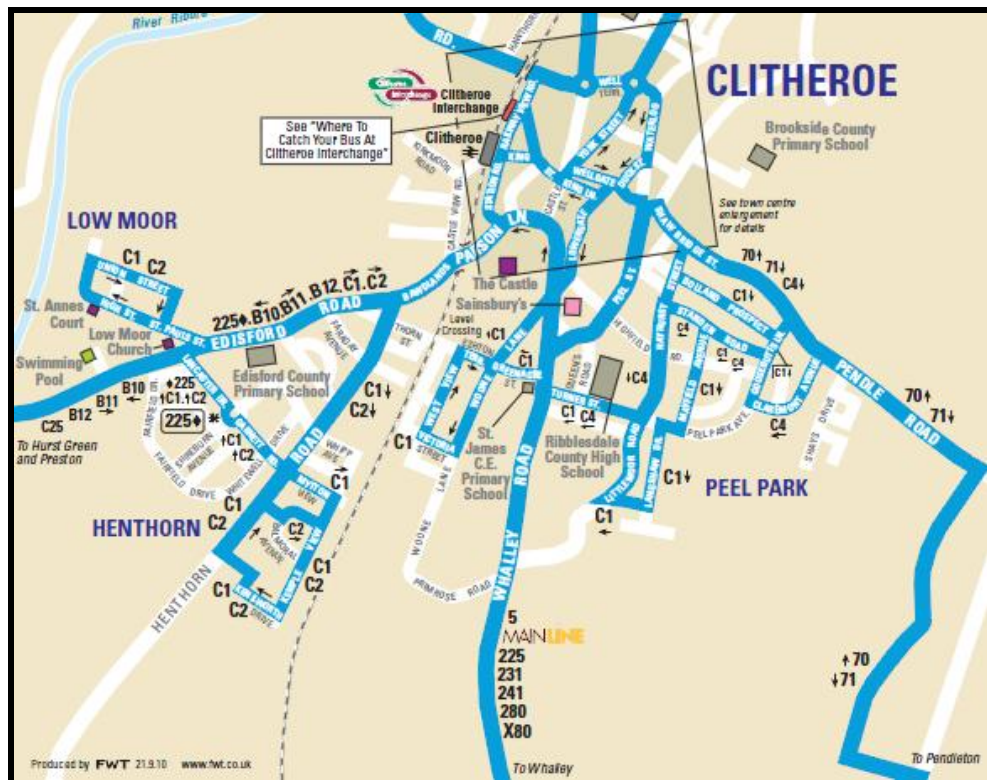
There are five frequent routes that pass by the site and the bus stops shown providing a highway frequency connection to Clitheroe, Burnley, Blackburn, Bolton and Longridge.



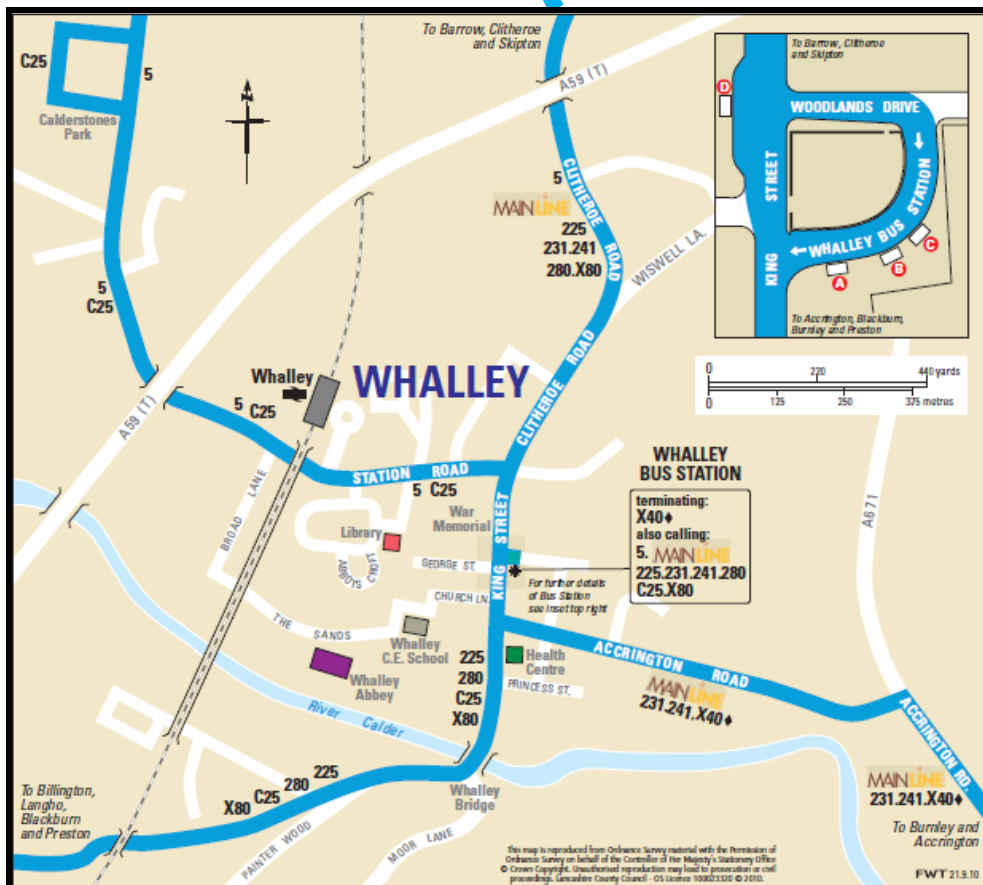
Services and frequencies

The proposed development site is therefore conveniently located close to bus stops for a semi rural area that regularly serve a number of communities in the vicinity of the site as shown overleaf.

These services provide the opportunity for residents to travel via public transport with in excess of 170 services per day.



Village of Barrow and stops serving the site



Local Routes

The proposed application site is therefore accessible by bus.

Summary

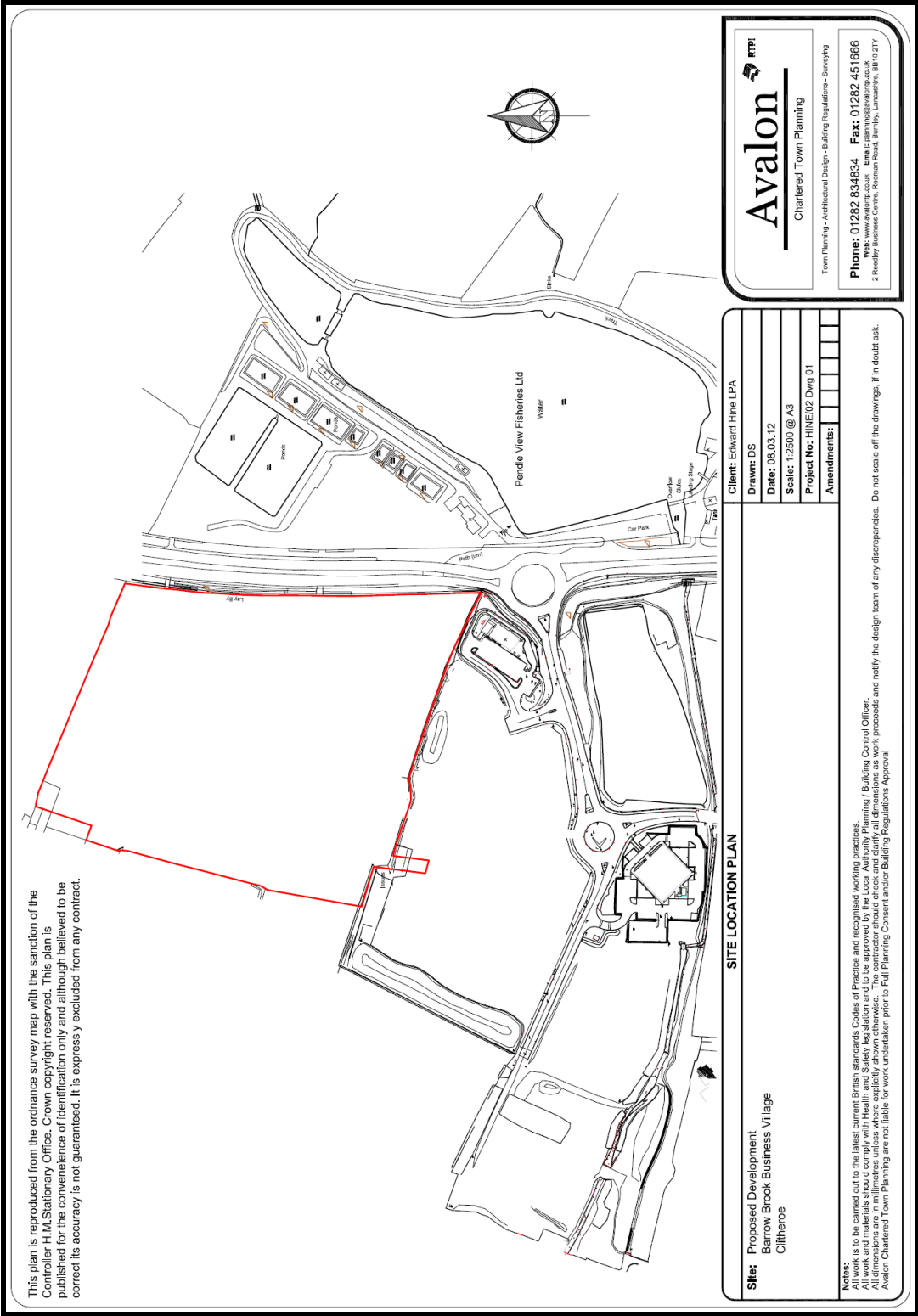
There are therefore opportunities for residents to use non car modes to access using cycling and bus accessibility from a wide area is possible.

In summary, therefore, the application site can be considered as being accessible by public transport, walking and cycling in accordance with planning policy guidance and thus reduce single and multi occupancy car trips and thus reduce trips on the network.

5. THE DEVELOPMENT PROPOSALS AND LAYOUT

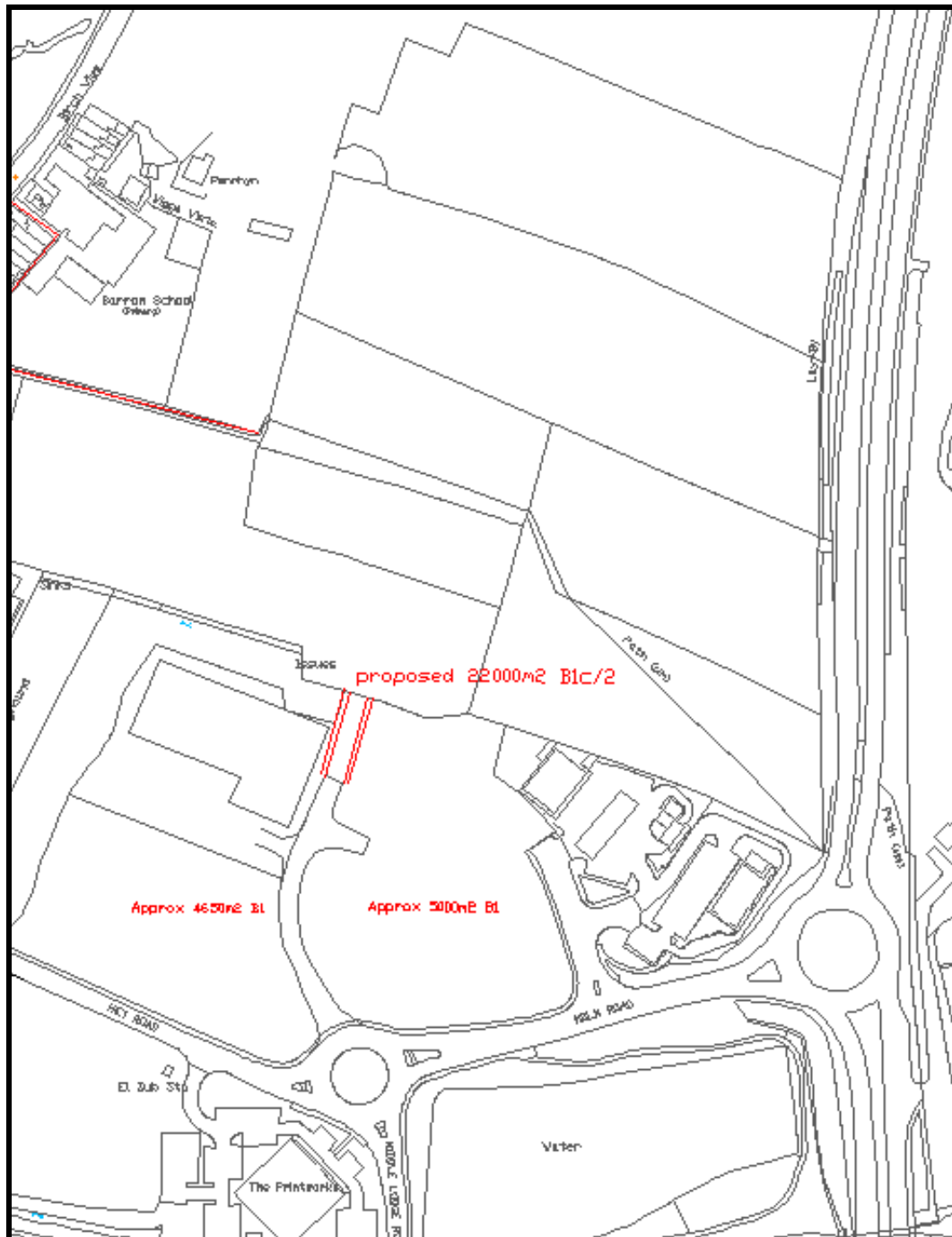
Development Proposals

The proposal is to develop the currently unused section of the designated development allocation in combination with additional land for some 22000m2 B1c/2 industrial uses.



Layout

The site layout is currently unknown but the plan abstract shows the primary vehicular access to the development will be via an extension to the existing cul de sac of North Road.



6. WHOLE SITE APPROVED TRIP LEVELS AND ACCUMALATIVE TRIPS ASESSMENT

Approved history and methodology

The area has been subject to a number of planning applications in recent years all gaining approval for trips in and out of the site via the A59 roundabout.

The 2007 TTHC assessment set out the following approvals and trip levels.

Base Scenario

In order to produce a suitable Base Scenario, the total consented (but not yet built out) development for the whole of the Barrow Brook Business Village needs to be added to the existing traffic movements. The current consented development includes 436,000sqft commercial development consent of which 368,000sqft is office and 68,000sqft is light industrial.

Trip rates have been derived for the proposed residential use based on sites within the TRICS database

In order to produce robust trip generation rates, the generations for each day from each site have been averaged before averaging the combined data from each of the Sites. This methodology avoids any weighting of the average by any one particular site.

The resulting trip generation rates from this exercise are presented in Table 3 to 9 below :

Office Business Park Trip Generation Rates

AM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	1.45	0.24	1.69
PM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	0.13	1.05	1.18

Table 3

Industrial Unit Trip Generation Rates

AM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	1.33	0.32	1.65
PM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	0.14	0.96	1.10

Table 4

Hotel Trip Generation Rates

AM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Hotel	Trips/Bedrooms	0.213	0.263	0.476
PM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Hotel	Trips/Bedrooms	0.239	0.186	0.425

Table 5

The above trip rates have been applied to the consented commercial floorspace to produce the Trips in **Table 6** to **8** below.

Predicted Consented Business Village Trip Generation

AM Peak Hour				
Site	Trip Rate	Arrival	Departures	Total
Application Site	GFA 8,082sqm	117	19	136
Remaining consented Land	GFA 26,105sqm	379	63	442
PM Peak Hour				
Site	Trip Rate	Arrival	Departures	Total
Application Site	GFA 8,082sqm	11	85	96
Remaining consented Land	GFA 26,105sqm	34	274	308

Table 6

Predicted Consented Business Village Industrial Trip Generation

AM Peak Hour				
Site	Trip Rate	Arrival	Departures	Total
Application Site	GFA 3,530sqm	47	11	58
Remaining consented Land	GFA 2,787sqm	37	9	45
PM Peak Hour				
Site	Trip Rate	Arrival	Departures	Total
Application Site	GFA 3,530sqm	5	34	39
Remaining consented Land	GFA 2,787sqm	4	27	31

Table 7

Predicted Consented Hotel Trip Generation

AM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Hotel	65 Bedrooms	14	17	31
PM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Hotel	65 bedrooms	16	12	28

Table 8

The above calculations provided a total agreed trip level for the consented schemes that access the area via the A59 roundabout and these are shown below for the AM and PM peaks.

The combined trip generation totals for the current planning consent are summarised in Table 9 below:				
Total Trip Generation for Consented Development - BASE				
AM Peak Hour				
Land Use		Arrival	Departures	Total
Total planning consent trips		594	119	713
PM Peak Hour				
Land Use		Arrival	Departures	Total
Total planning consent trips		70	432	502

Table 9

The 2007 application wished to change the development mix of part of the site and used the agreed trips rates and assessed the overall changes that would occur if the change of use was approved, as indeed it was. The following is the resultant table for the approved changes.

Total Trip Generations (Base + Proposed Scheme)				
AM Peak Hour				
Land Use Schedule		Arrivals	Departures	Total
All development		471	131	602
PM Peak Hour				
Land Use Schedule		Arrivals	Departures	Total
All development		79	339	418

Table 20

As can be seen the change approved reduced the overall trips levels to and from the site.

The trips levels above were assessed using ARCADY and the results shown below.

	2010 Base				2010 Base + Development			
	AM Peak		PM Peak		AM Peak		PM Peak	
	Max RFC	MAX Q	Max RFC	MAX Q	Max RFC	MAX Q	Max RFC	MAX Q
Arm A (A59N)	0.839	5	0.603	2	0.823	5	0.593	1
Arm B (A59S)	0.842	5	0.566	1	0.792	4	0.569	1
Arm C Site	0.341	1	0.708	2	0.356	1	0.606	2

Clearly the existing roundabout has no operational issues or queues for the consented approvals, as such any further changes that kept the overall trip levels at or below the above trips would have no material impact on the network.

In 2011 Singleton Clamp assessed a further change in the development for the consented uses.

They undertook a similar methodology to the previous work to provide a net change to the consented trip levels.

TRIP RATES PER UNIT PERMITTED SCHEME	AM PEAK		PM PEAK	
	ARR	DEP	ARR	DEP
HOUSES 43 units	0.16 (7)	0.38 (13)	0.36 (15)	0.22 (9)
APARTMENTS 21 units	0.05 (1)	0.26 (5)	0.25 (5)	0.13 (3)
APPLICATION SCHEME 37 units	0.16 (6)	0.38 (14)	0.36 (13)	0.22 (8)
TOTALS in VPH	(14)	(32)	(33)	(20)
TOTAL TWO WAY	(46)		(53)	

() No. of vehicles

The above trip rates were agreed for the private houses and apartments proposed for the change of use.

The conclusion of the assessment was the area in question (phase 2 residential) would result in an overall reduction of trips for a change to purely residential development which was subsequently approved and work commenced on site.

COMPARISON OF TRIPS (VPH)	AM PEAK		PM PEAK	
	ARR	DEP	ARR	DEP
Mixed Use Scheme	80	63	44	56
Permitted Residential Scheme plus Application Proposals	14	32	33	20
Difference	-66	-31	-11	-36
TOTAL TWO WAY	-97		-47	

Following on from these changes an area of industrial allocation off Middle Lodge Road has been promoted for residential uses and the following assessment undertaken by DTPC to support it.

Fallback consented trip levels

Using the previously agreed methodology and trip rates the potential changes for the industrial development was undertaken. This is to ensure consistency of approach and to allow direct comparisons to be made.

Table 4 of the TTHC approved assessment set out the following trip rates for the industrial uses on the overall site.

Industrial Unit Trip Generation Rates				
AM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	1.33	0.32	1.65
PM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	0.14	0.96	1.10

Table 4

The residential use would remove level of approved development of some 20000 sqm, for the purposes of this assessment the whole area has been taken as industrial use.

AM peak hour				
		In	Out	Two way
Land use	Industrial 20000 sqm	266	64	330
PM peak hour				
		In	Out	Two way
Land use	Industrial 20000 sqm	28	192	220

Residential proposals trip levels

The residential development consists of 80 houses and 24 apartments, using the above agreed rates the following trip levels have been derived.

Trip rates per use	AM peak		PM peak	
	In	Out	In	Out
Houses 80 units	0.16 (13)	0.38 (30)	0.36 (29)	0.22 (18)
Apartments 24 units	0.05 (1)	0.26 (6)	0.25 (6)	0.13 (3)
Totals in VPH	14	36	35	21
Two way total	50		56	
() no of vehicles				

The net change of the proposed residential scheme was reviewed, **this confirms that the change to residential development would have no material effect on the network.**

Comparison of trips VPH	AM peak		PM peak	
	In	Out	In	Out
Industrial	266	64	28	192
Proposed Residential	14	36	35	21
Difference in VPH	-252	-28	7	-171
Difference in Two way trips	-280		-164	

The above assessment using the previously applied methodology shows that the change to residential use on the site will have an overall reduction on flows to and from the site.

Comparison of changes of the residential use.

The overall effect of the residential change of use for the phase 1 and 2 approved and the latest residential proposal is set out below.

Comparison of trips VPH	AM peak		PM peak	
	In	Out	In	Out
Full consent	594	119	70	423
Residential phase 1 and 2	-66	-31	-11	-36
Latest submitted application	-252	-28	7	-171
Difference in VPH	-318	-59	-4	-207
Difference in Two way trips	-377		-211	

Clearly the local network does not have a capacity issue.

7. DEVELOPMENT SITE TRIP GENERATION AND ASSESSMENT

Fallback consented trip levels

Using the previously agreed methodology and trip rates the potential changes for the proposed industrial development has been undertaken. This is to ensure consistency of approach and to allow direct comparisons to be made.

Table 4 of the TTHC approved assessment set out the following trip rates for the industrial uses on the overall site.

Industrial Unit Trip Generation Rates				
AM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	1.33	0.32	1.65
PM Peak Hour				
Land Use	Trip Rate	Arrival	Departures	Total
Office	Trips/GFA	0.14	0.96	1.10

Table 4

Although the site has in part already gained a fall back position for robustness it has been assume that the industrial development is new.

Development proposals trip levels

The proposed use would add some 22000 sqm, for the purposes of this assessment the whole area has been taken as industrial use.

AM peak hour				
		In	Out	Two way
Land use	Industrial 22000 sqm	293	70	363
PM peak hour				
		In	Out	Two way
Land use	Industrial 22000 sqm	31	211	242

The net change of the proposed industrial scheme has been reviewed.

Comparison of trips VPH	AM peak		PM peak	
	In	Out	In	Out
Full consent	594	119	70	423
Residential phase 1 and 2	-66	-31	-11	-36
Pending residential application	-252	-28	7	-171
Proposed industrial	293	70	31	211
Difference in VPH	-25	11	27	4
Difference in Two way trips	-14		31	

The scale of changes due to the proposed industrial use supports the view that the proposal would not have a capacity issue.

8. SUMMARY

The scheme accords with local and national policy to site is adjacent to good transport linkages and other attractions to minimise trips and share trip movements.

- The site is in a sustainable location.
- There are no capacity issues on the local network
- The change of use will not make any material difference to the overall trips agreed to use the access and roundabout; and
- The movements as previously agreed are not at a level where safety levels would be affected

As such it is considered that there are no justified reasons why the scheme should not be approved.

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