

PROPOSED DEVELOPMENT
ON LAND EAST OF
CLITHEROE ROAD (LAWSONSTEADS)
WHALLEY
LANCASHIRE

PLANNING APPLICATION BY
COMMERCIAL ESTATES GROUP

TRANSPORT ASSESSMENT

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1.0 INTRODUCTION

- 1.1 This transport assessment forms part of an outline planning application submitted on behalf of Commercial Estates Group (CEG) for residential development on an area of land off Clitheroe Road, Whalley for which the Local Planning Authority is Ribble Valley Borough Council and the highway authority is Lancashire County Council (LCC).
- 1.2 In January 2012, a previous outline planning application submitted by CEG for some 300 dwellings on a larger area of land was refused consent for three reasons, none of which concerned highways matters. The application included a Transport Assessment, a Revised Transport Assessment and a Travel Plan which were all based upon agreement on a variety of technical issues between this Practice acting on behalf of CEG and LCC. Many of the agreed issues and parameters that were agreed as part of the previous planning application form the basis of this application and Transport Assessment.
- 1.3 Consistent with the earlier planning application, this application is in outline but with all matters now reserved for future determination. The illustrative plans prepared in support of the application show a development of some 55 houses with access by way of a simple priority controlled junction on to Clitheroe Road. A separate Site Wide Travel Plan which is also based upon the agreed content of the previous Travel Plan has been prepared and forms part of this application.
- 1.4 This Transport Assessment which is based upon Department of Transport Guidance on Transport Assessment includes consideration of committed and other proposed residential developments in Whalley. It considers the current usage of the local highway network, the base position at the agreed design year of 2016 and the predicted situation included the traffic likely to be generated by the development of this application site. It will also consider the sustainability and accessibility of the site including its proximity to local public

transport services and the availability of services and facilities within a sustainable travelling distance by a variety of transport modes.

- 1.5 This Transport Assessment will show that traffic likely to be generated by the proposed development can be safely and satisfactorily accommodated on the local highway network and that the site is currently well located to encourage trips by means other than the private car. It will be concluded therefore that there are no highways or transport related reasons why the proposed development should not be granted planning consent.

2.0 RELEVANT NATIONAL, REGIONAL AND LOCAL PLANNING POLICY

National Planning Policy Framework, March 2012

2.1 The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England and how they are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development which the document indicates should be seen as a 'golden thread' running through the decision making process.

2.2 Within the overarching roles that the planning system ought to play the NPPF indicates that there are a set of core land use planning principles which should underpin the decision making process. Specifically in relation to transport these principles include:

- Actively managing patterns of growth to make the fullest possible use of public transport, walking and cycling, and focussing significant development in locations which are or can be made sustainable.

2.3 The NPPF indicates that all developments that generate significant amounts of movement should be supported by a Transport Assessment and the decision making process should take account of whether:

- The opportunities for sustainable transport modes have been taken up depending on the nature and location of the site, to reduce the need for major transport infrastructure;
- Safe and suitable access to the site can be achieved for all people; and
- Improvements can be undertaken within the transport network that cost effectively limit the significant impacts of the development. Development should only be prevented or refused on transport grounds where the residual cumulative impacts of development are severe.

This document forms the Transport Assessment for the site and has been developed in accordance with the Department for Transport's Guidance on Transport Assessment issued in March 2007.

- 2.4 The NPPF indicates that the decision making process should ensure that developments that generate significant movements are located where the need to travel will be minimised and the use of sustainable transport modes can be maximised.
- 2.5 The NPPF further indicates that development should protect and exploit opportunities for the use of sustainable transport modes for the movement of goods or people. Therefore, developments should be located and designed where practical to, inter alia:
- Give priority to pedestrian and cycle movements, and have access to high quality public transport facilities;
 - Create safe and secure layouts which minimise conflicts between traffic and cyclists or pedestrians, avoiding street clutter and where appropriate establishing home zones; and
 - Consider the needs of people with disabilities by all modes of transport.
- 2.6 The NPPF indicates that a key tool to facilitate this will be a Travel Plan. All developments which generate significant amounts of movement should be required to provide a Travel Plan, and as indicated earlier the application for this site is accompanied by a full Travel Plan.
- 2.7 NPPF indicates that planning policies should aim for a balance of land uses within their area so that people can be encouraged to minimise journey lengths for employment, shopping, leisure, education and other activities.
- 2.8 Finally, NPPF indicates that where practical, particularly within large scale developments, key facilities should as primary schools and local shops should be located within walking distance of most properties, and as is demonstrated later on in this Transport Assessment the village of Whalley is within easy walking distance of the whole of the site.

Manual for Streets (MfS1)

- 2.9 Guidance for the design of residential roads set out in Design Bulletin 32 and

its companion guide Places Streets and Movement was superseded in March 2007 by the publication of the Departments for Transport and Communities and Local Government publication 'Manual for Streets' (MfS1). The focus of this document is on 'lightly trafficked' residential streets but it also states that many of its principles are applicable elsewhere (e.g. high streets and lightly-trafficked lanes in rural areas). The document sets out that:

"It is therefore strongly recommended that local authorities review their standards and guidance to embrace the principles of MfS."

- 2.10 The aims of the document are to bring about a transformation in the quality of streets and represent a fundamental culture change in the way streets are designed and adopted. MfS provides guidance in order that streets can be designed to:

- Help to build and strengthen the communities they serve;
- Meet the needs of all users, by embodying the principles of inclusive design;
- Form part of a well-connected network;
- Be attractive and have their own distinctive identity;
- Be cost-effective to construct and maintain; and
- Be safe.

- 2.11 Manual for Streets advocates inclusive design and its principles which are to:

- Place people at the heart of the design process;
- Acknowledge diversity and difference;
- Offer choice where a single solution cannot accommodate all users;
- Provide for flexibility in use; and
- Provide buildings and environments that are convenient and enjoyable to use for everyone.

- 2.12 Manual for Streets defines a 'street' as a highway that has important public realm functions beyond the movement of traffic. Streets have a sense of place and are distinctive and are lined with and provide direct access to buildings and public spaces. Most highways in built-up areas can be considered as

streets. The Manual does not define an upper limit in terms of traffic flow to define a 'street' as that was considered to be too prescriptive but as a general guide suggests a threshold of about 10,000 vehicles per day or about 1,000 vehicles per hour at peak times.

Manual for Streets 2 (MfS2)

2.13 The Chartered Institution of Highways and Transportation (CIHT) publication 'Manual for Streets 2: Wider Application of the Principles' (MfS2) was published in September 2010 and forms a companion guide to "Manual for Streets" (MfS1) which was published in 2007. MfS2 fills the perceived gap in design guidance between MfS1 and Design Manual for Roads and Bridges (DMRB) and has been endorsed by the Department for Transport (DfT).

2.14 The "Status and Application" section of MfS2 States:

"DMRB is the design standard for Trunk Roads and Motorways in England, Scotland, Wales and Northern Ireland. The strict application of DMRB to non-trunk routes is rarely appropriate for highway design in built up areas, regardless of traffic volume."

2.15 MfS2 paragraph 1.3.3 states that:

"Where designers do refer to DMRB for detailed technical guidance on specific aspects, for example on strategic inter-urban non-trunk roads, it is recommended that they bear in mind the key principles of MfS, and apply DMRB in a way that respects local context. It is further recommended that DMRB or other standards and guidance is only used where the guidance contained in MfS is not sufficient or where particular evidence leads a designer to conclude that MfS is not applicable."

2.16 MfS2 paragraph 1.3.4 goes on to state:

"The application of MfS advice to all 30mph speed limits as a starting point is in keeping with MfS1."

North West of England Plan – Regional Spatial Strategy to 2021

- 2.17 The Government has announced its intention to revoke the Regional Strategies in England, which will happen when the relevant parts of Localism Act are brought into force. However, until such time, the RSS must still remain a material consideration in assessing planning applications, as should the Government's intention to revoke RSS.
- 2.18 The North West of England Plan was published in September 2008 and sets out the Secretary of State for Communities and Local Government's policies in relation to the development of land within this region. It aims to guide development of land within the region over the next 15 to 20 years. The plan also embodies the Regional Transport Strategy and must be taken into account by local authorities in preparing their Local Development Frameworks and Local Transport Plans. The plan does not however make site-specific allocation of land for development.
- 2.19 The Plan initially sets out its Spatial Principles and Policy DP5 relates to managing travel demand and states:

Manage Travel Demand; Reduce the Need to Travel, and Increase Accessibility

Development should be located so as to reduce the need to travel, especially by car, and to enable people as far as possible to meet their needs locally. A shift to more sustainable modes of transport for both people and freight should be secured, an integrated approach to managing travel demand should be encouraged, and road safety improved.

Safe and sustainable access for all, particularly by public transport, between homes and employment and a range of services and facilities (such as retail, health, education, and leisure) should be promoted, and should influence locational choices and investment decisions.

Major growth should, as far as possible, be located in urban areas where strategic networks connect and public transport is well provided.

All new development should be genuinely accessible by public transport, walking and cycling, and priority will be given to locations where such access is already available.

In rural areas accessibility by public transport should also be a key consideration in providing services and locating new development, emphasising the role of Key Service Centres (Policy RDF2).

- 2.20 Whalley lies in the Ribble Valley which is within Central Lancashire City Region which also includes Preston, Blackburn, Blackpool and Burnley. The RSS states that Preston, Blackburn, Blackpool and Burnley all have strong, functional links with smaller towns and villages, including some in neighbouring districts. Focusing new development here reflects their existing key roles within the Central Lancashire City Region and consolidates their ability to serve their hinterlands, promoting enhanced economic growth and a better quality of life.
- 2.21 Outside the four main settlements, the City Region contains a variety of smaller industrial towns, market towns and rural settlements that operate as key service centres and local service centres. Fundamental to the concept of the zones of influence is the recognition of the inter-relationships between urban and rural areas. The smaller settlements and rural areas will make an important contribution to the City Region, not only as a recreational resource, but also in terms of the regeneration of towns, villages and the wider rural economy.
- 2.22 The policies relating to the Regional Transport Strategy for the North West are contained in Section 8 of the RSS. Policy RT2 relates to Managing Travel Demand and states:

Managing Travel Demand

The Regional Planning Body, local authorities, and other highway and transport authorities should develop a coordinated approach to managing

travel demand. Early consultation with the Highways Agency will be required for any proposal that may affect the trunk road network. In particular, efforts should be aimed at reducing the proportion of car-borne commuting and education trips made during peak periods and tackling the most congested parts of the motorway network including M6, M56, M60 and M62. In rural areas, the focus should be on major tourist areas where visitor pressure is threatening the local environment and quality of life. Measures to discourage car use should consider improvements to and promotion of public transport, walking and cycling. Plans and strategies will need to be specific to the nature and scale of the problems identified, set clear objectives and specify what is being proposed, why it is necessary and what the impacts will be. They should:

ensure that major new developments are located where there is good access to public transport, backed by effective provision for pedestrians and cyclists to minimise the need to travel by private car;

seek to reduce private car use through the introduction of 'smarter choices' and other incentives to change travel behaviour which should be developed alongside public transport, cycling and pedestrian network and service improvements;

consider the effective reallocation of road space in favour of public transport, pedestrians and cyclists alongside parking charges, enforcement and provision and other fiscal measures, including road user charging;

make greater use of on-street parking controls and enforcement;

incorporate maximum parking standards that are in line with, or more restrictive than, Table 8.1, and define standards for additional land use categories and areas where more restrictive standards should be applied. Parking for disabled people and for cycles and two-wheel motorised vehicles are the only situations where minimum standards will be applicable.

Lancashire Local Transport Plan 2011-2021 (LTP3)

- 2.23 The Transport Act 2000 requires all local transport authorities in England, outside London, to prepare Local Transport Plans. The relevant local policy documentation in the context of this Transport Assessment is the Third Lancashire Local Transport Plan (LTP3) 2011/21.

- 2.24 At the Council meeting on Thursday 26th May 2011 county councillors voted to officially endorse the new plan. Supporting economic growth and access to employment, making the county's roads safer for our children and young people, and looking after the transport infrastructure are all priorities identified in the new transport strategy. The new local transport plan for Lancashire is a first step in the commissioning and delivery of new transport schemes across the county.
- 2.25 The plan gives support to a number of improvements to tackle congestion and bring forward new development. Initiatives include supporting improvements in railway infrastructure and bus services and providing safer streets by improving the infrastructure of residential streets, the public realm, addressing specific hazards and providing training and raising awareness. The plan considers that the introduction of 20mph zones across residential areas could significantly contribute towards increased road safety and bring shared benefits in terms of encouraging more people to cycle and walk.
- 2.26 Through the LTP3, Lancashire County Council is committed to work with developers and district councils to influence locations for major new developments. This will concentrate around reducing the need to travel and securing and ensuring adequate accessibility through improvements to the transport networks to serve and promote new development.
- 2.27 The consultation on the draft Implementation Plan for the Local Transport Plan is now complete. LCC are currently in the process of analysing responses and amending the draft Implementation Plan accordingly.
- 2.28 The consultation draft set out a comprehensive programme of transport projects that will be implemented that will be implemented in the three years to 2013/14. It will identify where the County Council intends to commit its spending to projects and importantly where other external funding sources are committed or will be sought.

- 2.29 With regard to projects within Whalley itself LCC are committed to introduce 20mph limits in all residential areas and outside schools over the lifetime of the plan and specific phasing for this is identified in Whalley by 2013.

3.0 THE EXISTING SITUATION

The Application Site

3.1 Whalley is a village settlement with existing development to both sides of the B6246 Accrington Road, B6246 King Street, B6246 Station Road and Clitheroe Road, as shown on the plan attached at **Appendix BGH1**. The development site, which is predominantly open grassland punctuated with existing hedgerows and trees, lies immediately to the north east of existing residential properties on the eastern side of the village. The site is some 3.8 hectares in area and includes frontage some 95.0 metres long onto Clitheroe Road.

3.2 The site is bounded to the north by open fields and a small group of residential properties, to the east by open fields and to the south and west by existing residential properties. On the opposite side of Clitheroe Road to the site frontage there are large detached residential properties with individual drives onto Clitheroe Road. There is currently no formal vehicular access into the site.

The Local Highway Network

3.3 Clitheroe Road performs the function of an urban local distributor type of road linking Whalley centre, some 600 metres to the south west of the centre of the site, with Barrow and Clitheroe to the north. A671 Whalley Easterly Bypass forms part of the local primary route network, linking Whalley with Padiham. The road provides a bypass of Whalley village and is classed as a Strategic Route within LCC's Functional Road Hierarchy.

3.4 Along the frontage of the development site, Clitheroe Road has a single carriageway varying in width between 6.6 metres and 7.4 metres, the road is lit to appropriate standard and is subject to a 30mph speed limit. On its nearside, the road has a footway between 1.5 metres and 3.2 metres wide whilst on the farside, the footway varies in width between 1.0 metre at its narrowest to 3.2 metres at its widest. Currently, the road provides access to

existing residential, farm and industrial development along its length.

- 3.5 Clitheroe Road is a bus route with the nearest bus stop located directly on the site frontage, some 270.0 metres from the centre of the development site. It comprises a pole only and serves buses travelling southbound on Clitheroe Road. A complementary bus stop serving buses travelling northbound on Clitheroe Road is situated a further 50.0 metres south on the opposite side of the road. Public transport provision is discussed further in section 7.0 of this Transport Assessment.
- 3.6 Some 80.0 metres north of the site frontage, Clitheroe Road meets Wiswell Lane at a simple priority junction. Wiswell Lane provides direct vehicular and pedestrian access to Oakhill College, Oakhill Academy and some 15 to 20 dwellings along its length. It has a single carriageway, is lit and is subject to a 30mph speed limit. Pedestrian provision is poor with one footway some 1.5 to 1.8 metres wide on the south side of the carriageway which extends approximately half the length of Wiswell Lane. Some 250.0 metres north of the Clitheroe Road/Wiswell Lane priority junction, the speed limit on Clitheroe road increases to 40mph.
- 3.7 Some 550.0 metres north east of the Clitheroe Road/Wiswell Lane junction, Wiswell Lane meets the A671 Whalley Easterly Bypass at a ghost island staggered priority controlled junction with right lanes provided for traffic turning into the minor roads of Wiswell Lane and Wiswell Shay. A671 Whalley Easterly Bypass is subject to the national speed limit of 60mph and the level of visibility that is available to both minor and major road traffic is appropriate for the speed of the major road traffic.
- 3.8 Some 400.0 metres south west of the development site, Clitheroe Road meets Brookes Lane/B6246 King Street/B6246 Station Road at a the mini roundabout junction, which forms the start of the village centre. To the west of this junction, Station Road, a local distributor type road, provides vehicular and pedestrian access to Whalley Railway Station which is some 800.0 metres

walking distance west of the centre of the development site, as discussed further in Section 5.0 of this Transport Assessment.

- 3.9 Thereafter, Station Road passes under the Blackburn to Clitheroe Railway Line and becomes Mitton Road before continuing westward and passing under the A59. There is a zebra crossing facility on Station Road situated at the junction with Riddings Lane, midway between the mini roundabout junction with Clitheroe Road and Whalley Railway Station. There are also bus stops on Station Road situated some 460.0 metres walking distance from the centre of the development site.
- 3.10 To the south of the Clitheroe Road/Brookes Lane/Station Road mini roundabout junction, the B6246 King Street provides access to the village centre of Whalley some 800.0 metres south of the centre of the development site. The centre of Whalley includes facilities such as Whalley Bus Station, Whalley Methodist Church, Whalley C of E Primary School and numerous shops, banks and public houses. Some 280.0 metres south of the mini roundabout junction, the B6246 King Street meets the mini roundabout junction of B6246 Accrington Road/King Street in the centre of the village. King Street continues southwards, passes over the River Calder and changes to Whalley New Road at the priority junction with Moor Lane.
- 3.11 The entire length of King Street is subject to a high level of on-street parking which is allowed, intermittently, between various lengths of double yellow line waiting restrictions. The side streets of Woodlands Drive, George Street and Church Lane are also subject to high levels of on-street parking, which is also restricted in places by way of Traffic Regulation Orders.
- 3.12 To the south of Whalley village centre, Whalley New Road provides a vehicular link with the settlements of Billington, Langho, Wilpshire and Ramsgreave. Whalley New Road also provides a vehicular link to junction 31 of the M6 Motorway and Blackburn via the A59.

- 3.13 The B6246 Accrington Road extends in an east-west direction between the mini roundabout junction with B6246 King Street, and the signal controlled crossroad junction of the A671 Accrington Road/Spring Wood Picnic Site. This junction provides a vehicular link south towards Junction 7 of the M65 Motorway. Roads approaching this signal controlled junction are subject to the national speed limit of 60mph and the north and southbound approaches to the junction on the A671 widen to form four and three approach lanes respectively.
- 3.14 Some 850.0 metres to the north of this signal controlled junction, the A671 Whalley Easterly Bypass meets the A59 at a large three arm roundabout which provides vehicular access to Clitheroe to the north and to M6 Motorway/Blackburn to the south west. The A59 is also accessible to local south-westbound traffic via the junction of the A671 Whalley Easterly Bypass/Wiswell Lane therefore avoiding the need for traffic to use the centre of Whalley.

4.0 EXISTING TRAFFIC CONDITIONS

Existing Traffic Data

4.1 In order to assess the existing usage of the local highway network and the operation of key junctions in Whalley, fully classified traffic surveys were undertaken at the following locations on Thursday 7 October 2010 between the hours of 07:30 – 09:30 and 16:00 – 18:00.

- Clitheroe Road/Wiswell Lane - Priority Junction
- Clitheroe Road/Brookes Lane/King Street/Station Road – Mini Roundabout Junction
- B6246 King Street/Accrington Road/King Street – Mini Roundabout Junction.

4.2 In addition, the results of traffic surveys carried out on Tuesday 3rd November 2009 have also been used to assess the operation of the following additional junctions located within the vicinity of the site.

- A671 Accrington Road/B6246 Accrington Road/Springwood Picnic Site - Signalised Crossroads
- A671 Whalley Easterly Bypass/Wiswell Lane/Wiswell Shay Priority Staggered Crossroads
- A59/A671 Whalley Easterly Bypass Roundabout Junction

4.3 Analyses of the results of all the above surveys has identified that the morning and evening peak hour periods occur between 8:00am - 9:00am and 5:00pm – 6:00pm respectively, as shown on the diagrams attached at **Appendix BGH2**. It should be noted that the 2009 survey results have been growthed to 2010 using factors derived from the DfT National Trip End Model adjusted with local Tempco factors, to provide the basis for this Transport Assessment.

Assessment of Existing Peak Hour Junction Capacity

4.4 The current peak hour performances of the following junctions have been assessed using the computer software programs PICADY 6, ARCADY 8 and LINSIG V3 as appropriate and the results are summarised in the tables below

with the appropriate full output attached at **Appendix BGH3**. The geometric parameters which form the basis of the capacity calculations at the mini roundabout junctions of Clitheroe Road/Brookes Lane/King Street/Station Road and B6246 King Street/Accrington Road/King Street are based upon those agreed within the Revised Transport Assessment of the earlier planning application.

- Clitheroe Road/Wiswell Lane - Priority Junction
- Clitheroe Road/Brookes Lane/King Street/Station Road Mini Roundabout
- B6246 King Street/B6246 Accrington Road/King Street Mini Roundabout
- A671 Accrington Road/B6246 Accrington Road/Springwood Picnic Site
- A671 Whalley Easterly Bypass/Wiswell Lane/Wiswell Shay
- A59/A671 Whalley Easterly Bypass Roundabout

Clitheroe Road/Wiswell Lane - Priority Junction

4.5 Existing 2010 Morning and Evening Peak Hour Traffic Flows

Movement	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
B – AC Left and right turn out of Wiswell Lane on to Clitheroe Road	0.37	1	0.19	0.41	1	0.22
C – AB Right turn into Wiswell Lane from Clitheroe Road	0.31	1	0.13	0.27	1	0.11

Table 4.1

The results above show that this junction currently operates within capacity during the 2010 existing morning and evening peak hours given that the maximum ratio of flow to capacity (RFC) is well below the practical junction capacity of 0.85. From on site observations, it is considered that the results of the above analyses are representative of the current junction operation.

Clitheroe Road/Brookes Lane/King Street/Station Road Mini Roundabout Junction

4.6 Existing 2010 Morning and Evening Peak Hour Traffic Flows

ARM	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
Arm A - Clitheroe Road	0.88	6	0.93	0.86	5	0.78
Arm B - Brookes Lane	0.05	0	0.30	0.02	0	0.27
Arm C - King Street	0.76	3	0.33	0.94	10	0.94
Arm D - Station Road	0.76	3	0.33	0.72	3	0.72

Table 4.2

The results above show that this junction currently operates near to capacity during the 2010 existing morning and evening peak hours. From on site observations, it is considered that the results of the above analyses are representative of the current junction operation.

B6246 King Street/B6246 Accrington Road/King Street Mini Roundabout Junction

4.7 Existing 2010 Morning and Evening Peak Hour Traffic Flows

ARM	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
Arm A – B6246 King Street	1.08	36	2.81	0.93	9	0.88
Arm B – Accrington Road	0.65	2	0.27	0.67	2	0.26
Arm C – King Street	0.93	9	1.03	1.00	16	1.67

Table 4.3

The results above show that this junction currently operates at its maximum junction capacity of 1.000 in the morning peak period and nearing capacity within the evening peak periods under the 2010 existing traffic demands. From on-site observations, it is considered that the results of the above analyses are representative of the current junction operation. The modelling results reflect a peak within the morning peak hour period from 08:15 to 08:45 presumably because of the trips associated with the nearby primary schools.

A671 Accrington Road/B6246 Accrington Road/Springwood Picnic Site Signalised Crossroads

4.8 Existing 2010 Morning and Evening Peak Hour Traffic Flows

Link	Existing 2010			
	Morning Peak Hour		Evening Peak Hour	
	DoS (%)	Queue	DoS (%)	Queue
1/1 A671 (North) Ahead Left	41.3	5.1	38.1	4.6
1/2+ 1/3 A671 (North) Ahead Right	43.8	5.8	40.7	5.2
2/1 Spring Wood Left Ahead Right	10.1	0.4	12.3	0.5
3/2 + 3/1 A671 (South) Left Ahead	71.4	8.0	62.0	5.8
3/3 + 3/4 A671 (South) Right Ahead	57.4	8.5	45.2	6.0
4/1 B6246 Accrington Rd Right Ahead Left	71.4	8.7	62.1	7.0
PRC Over All Links	26.0%		45.0%	

Table 4.4

The analyses of the signalised junction, which does not include pedestrian facilities, has been undertaken using the LINSIG v3 program and assumes two 70 second cycles to reflect the low traffic demand on the Springwood Picnic Site arm of the junction. The results show that the junction currently operates within capacity during the existing morning and evening peaks and this is confirmed by site observations.

A671 Whalley Easterly Bypass/Wiswell Lane/Wiswell Shay Priority Staggered Crossroads

4.9 Existing 2010 Morning and Evening Peak Hour Traffic Flows

Movement	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
B – CD Straight ahead and left turn out of Wiswell Shay	0.04	0	0.12	0.02	0	0.11
B – A Right turn out of Wiswell Shay	0.05	0	0.26	0.02	0	0.23
AB – D Right turn into Wiswell Lane from A671 and Wiswell Shay	0.26	0	0.17	0.17	0	0.14
D – AB Straight ahead and left turn out of Wiswell Lane	0.28	0	0.17	0.16	0	0.13
D – C Right turn out of Wiswell Lane	0.23	0	0.31	0.08	0	0.22
CD – B Right turn into Wiswell Shay from A671 and Wiswell Lane	0.03	0	0.12	0.05	0	0.12

Table 4.5

The results show that this junction currently operates within capacity during both the morning and evening peak hours with minimal queuing and delay. From on-site observations, it is considered that the results of the above analyses are representative of the current junction operation.

A59/A671 Whalley Easterly Bypass Roundabout Junction

4.10 Existing 2010 Morning and Evening Peak Hour Traffic Flows

ARM	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
Arm A – A59 (North)	0.58	1	0.07	0.53	1	0.06
Arm B - A671	0.66	2	0.12	0.50	1	0.08
Arm C – A59 (South)	0.44	1	0.06	0.43	1	0.06

Table 4.6

The results above show that this junction currently operates within capacity during the 2010 existing morning and evening peak hours given that the

maximum ratio of flow to capacity (RFC) is below 0.85. Queuing and delay at the junction are also shown to be minimal. From on site observations, it is considered that the results of the above analyses are representative of the current junction operation.

Assessment of Existing Residential Traffic Generation in Whalley

- 4.11 At the pre-application public exhibitions for the earlier planning application, concern was expressed that the development would likely generate abnormally high levels of traffic at peak times which could not be accommodated on the local highway network. Peak hour traffic surveys were therefore undertaken at the junction of King Street/Woodlands Drive in order to identify the local traffic generation rate of the 86 existing houses served off Woodlands Drive.
- 4.12 The results of the surveys are tabulated below and show that the two-way rates during the morning and evening peak periods are some 0.7 and 0.8 trips per household respectively. These rates are within the normally accepted range of rates determined from numerous similar traffic surveys undertaken elsewhere in the country and listed on the TRICS database, from which it can be concluded that, contrary to public concern, existing residential traffic generation rates in Whalley are not abnormally high. These rates were agreed with Lancashire County Council as part of the earlier planning application.

Generated Vehicle Trips, Woodlands Drive, Whalley

Assessment Period	Surveyed Trips for 86 Houses			Derived Trip Rates per Household		
	IN	OUT	2-WAY	IN	OUT	2-WAY
08:00 – 09:00	21	40	61	0.244	0.465	0.709
17:00 – 18:00	39	31	70	0.453	0.360	0.813

Table 4.7

- 4.13 During the survey, it was noted that whilst the junction of King Street/Woodlands Drive, and the associated housing estate, is within close proximity of Whalley Bus Station, its influence on the level of generated car

trips was negligible since the bus patronage originating from Woodland Drive was observed as very low.

Assessment of Existing Residential Traffic Distribution in Whalley

- 4.14 Following extensive debate between Bryan G Hall Ltd and Lancashire County Council during the earlier planning application, it was agreed that the generated traffic should be distributed on the local highway network based upon the existing turning movements recorded at each of the junctions surveyed.

Assessment of Existing Parking Operation and Capacity within Whalley

- 4.15 Car parking surveys of all the streets and the three car parks within Whalley centre were carried out on Friday 15 and Saturday 16 October 2010 between the hours of 8:00am – 6:00pm. The details and locations of the surveys are shown on the schedule attached at **Appendix BGH4**.
- 4.16 The spreadsheet attached at **Appendix BGH5** summarises the survey results and shows that for the whole of Whalley centre, the maximum on-street occupancy on a Friday was 183 i.e. 51% of the total spaces available whilst on the Saturday, the maximum occupancy was 190 i.e. 53%. At the peak time on the Friday, 51 of the 183 vehicles parked up to two hours and on the Saturday, 114 of the 190 vehicles parked for up to two hours. The remainder parked for over two hours.
- 4.17 For the streets within the central area of Whalley shown on the plan attached at **Appendix BGH6**, the maximum on-street occupancy on a Friday was 70 i.e. 81% of the spaces available whilst on the Saturday, the maximum occupancy was 71 i.e. 83%. At the peak time on the Friday, 23 of the 70 vehicles parked for up to two hours and on the Saturday, 40 of the 71 vehicles parked for up to two hours. Within the shopping area on both days, only about a quarter of the on-street spaces were unoccupied for most of the day.
- 4.18 With regard to parking within the off street private car parks, Zones 19 and 40 are identified as the Swan Hotel (30 spaces) and Whalley Arms (38 spaces)

“Pay and Display” car parks respectively. Car park charges of 50p/hour for up to six hours, and £10 over six hours apply at both car parks which, from the car park signage, are privately operated.

- 4.19 The maximum total occupancy of the Swan Hotel and Whalley Arms car parks combined was 57 i.e. 84 % on the Friday and 56 i.e. 82% on the Saturday. At the peak time on the Friday, 39 of the 57 vehicles parked up to two hours and on the Saturday, 27 of the 56 vehicles parked for up to two hours.
- 4.20 At the 16 space, Whalley Railway Station car park, the maximum occupancy was 13 and 16 on the Friday and Saturday respectively and the majority of vehicles parked for four hours or more.
- 4.21 From the results of the above surveys, it is concluded that overall, there is not a shortage of parking provision in Whalley, either within the off-street car parks or on-street. However, within the shopping area, a significant proportion of vehicles were parked on-street for more than two hours on both survey days and only about a quarter of the spaces were available at peak times. It is presumed that this limitation on the availability of on-street parking spaces is the basis of the concerns raised by the public at the two pre-application exhibitions of the earlier Planning Application.

Personal Injury Accidents

- 4.22 Personal injury accident data (PIA) has been obtained from Lancashire County Council's interactive mapping website MARIO (Maps & Related Information Online). The database gives limited accident details, however an assessment of the number, severity, location and time of accidents which have occurred at the junctions identified at paragraphs 4.1 and 4.2, and the highways links between them, has been undertaken. The database covers the previous five years and an accident plot diagram illustrating the locations of these accidents together with supplementary accident information is attached at **Appendix BGH7**.

- 4.23 Within the last five years, one accident of slight severity was recorded at the junction of Clitheroe Road/Wiswell Lane which involved two cars colliding during daylight hours. The weather conditions at the time were fine without high winds. The low number of accidents which have occurred at this priority controlled junction over the last five years indicate that there is no particular accident trend or problem associated with the geometric layout.
- 4.24 No accidents have been recorded at the mini roundabout junction of Clitheroe Road/Brookes Lane/B6246 King Street/B6246 Station Road or on the length of Clitheroe Road between this junction and the priority controlled junction of Wiswell Lane, which also includes the length of Clitheroe Road forming the north-western boundary of the site.
- 4.25 Three accidents, two slight and one serious in severity, were recorded at the zebra crossing on King Street situated within the centre of Whalley adjacent to the junction of George Street. One of the slight accidents involved a collision between two cars during daylight hours in fine weather conditions. The remaining slight accident involved a collision between a car and a pedestrian shortly before sunrise during rain and high winds. The serious accident also involved a collision between a car and a pedestrian which occurred shortly before sunset during fine weather conditions. Over the five year study period, these three recorded accidents do not indicate any particular accident trend or problem associated with the zebra crossing or layout of King Street.
- 4.26 Three accidents of slight severity were recorded at the mini roundabout junction of B6246 King Street/B6246 Accrington Road/King Street. Two of these accidents involved collisions between a car and a pedestrian, one of which occurred during the early hours of the morning (1:30am) outside the Whalley Arms public house. The remaining pedestrian accident occurred during daylight hours in fine weather. These three accidents do not appear to be linked by any one factor and there is no identifiable accident trend or problem associated with the geometric layout of the mini roundabout junction.

- 4.27 Five accidents were recorded along the entire length of the B6246 Accrington Road between the mini roundabout junction with B6246 King Street and the signal controlled junction with A671 Accrington Road. Four of these accidents were classified as slight in severity with the remaining one classified as serious. Two of the five accidents occurred at the junction with Sydney Avenue with the remaining three each occurring in separate locations. The serious accident occurred some 100.0 metres east of the junction with Sydney Avenue during daylight hours in fine weather conditions without high winds. There appears to be no particular accident trend or problem associated with the length of B6246 Accrington Road or the layout of the junctions along its length.
- 4.28 Sixteen accidents were recorded at the signal controlled junction of A671 Accrington Road/B6246 Accrington Road of which twelve were slight, three serious and one fatality. None of the above accidents involved collisions with pedestrians. Each serious accident occurred at different locations within the junction and two of serious accidents involved collisions with motorcycles. The fatal accident occurred on Saturday 19 January 2008 and involved two cars colliding during darkness (10:00pm). The weather conditions were poor with rain but without high winds. No further information has been provided.
- 4.29 To the north of the above signal controlled junction, four accidents were recorded on the A671 between the signal junction and the priority controlled junction with Wiswell Lane/Wiswell Shay, a length of some 1.0 kilometres. Of the above four accidents, three were of slight severity and one resulted in a fatality. Each of the slight accidents occurred at separate locations along this length of Whalley Easterly Bypass. The fatal accident occurred some 500.0 metres north of the signal controlled junction on Wednesday 2 January 2008 and involved three cars colliding during darkness (5:29pm). The weather conditions were fine, without high winds. Also, the accidents occurred on the section of A671 which is currently unlit.

- 4.30 Four accidents were recorded at the junction of A671 Whalley Easterly Bypass/Wiswell Lane/Wiswell Shay, all of which were of slight severity. None of the above accidents involved collisions with pedestrians. Over the five year study period, these four recorded accidents do not indicate any particular accident trend or problem associated with this priority controlled junction.
- 4.31 To the north of this priority controlled junction, two accidents were recorded on the A671 between the priority controlled junction and the roundabout junction of A59/A671, a length of some 300.0 metres. One of these accidents was slight and the other was classified as serious. Each accident occurred in a separate location and none involved collisions with pedestrians. There appears to be no particular accident trend or problem associated with the A671 along this length.
- 4.32 Five accidents were recorded at the junction of the A59/A671, all of which were slight in severity. The accidents are not clustered on any one arm of the roundabout and none of the above accidents involved collisions with pedestrians. Over the five year study period, these five recorded accidents do not indicate any particular accident trend or problem associated with this roundabout junction.
- 4.33 Consideration of the personal injury accidents that have occurred over the last five years in the vicinity of the development has shown that there have been some small clusters of accidents at key junctions. This Transport Assessment will identify areas which can be improved, through the implementation of the development, in order to reduce the potential for future accidents.

5.0 COMMITTED DEVELOPMENT

- 5.1 A development of 80 residential units at land to the north of Riddings Lane, Whalley with access from Hayhurst Road received planning permission on 16 September 2011 following a public inquiry in which the Inspector concluded 'the proposal would be in accordance with the development plan and Government guidance'. Consistent with the earlier planning application this Transport Assessment will therefore take into account the traffic impact of this committed development.
- 5.2 On 9 February 2012, application no. 3/2011/0837 for residential development on land of Pendle Drive, Calderstones, Whalley was approved however, the associated s106 agreement is yet to be signed. Notwithstanding this, the proposed development has been assumed to be a commitment within this Transport Assessment.
- 5.3 A planning application of some 78 houses on land off Accrington Road was submitted to the LPA on 1st March 2012 (Application Ref: 3/2012/0179). Although this application is yet to be determined, it has been treated as a committed development within this Transport Assessment, on the basis that Lancashire County Council Highways may wish to understand the cumulative impact should this development come forward.
- 5.4 None of the three committed developments propose any off-site highways measures to mitigate individually or cumulatively, the impact of the traffic likely to be generated.
- 5.5 Diagrams showing the likely peak hour traffic generation of each of these developments are attached at Appendix **BGH8**.

6.0 BASE TRAFFIC OPERATING CONDITIONS

- 6.1 For the purpose of assessing the impact of 'natural' traffic growth on the local highway network, a base year of 2017 has been assumed, five years after the date of the planning application registration (April 2012) which is in accordance with the guidance given within current DfT Guidance on Transport Assessment.
- 6.2 As part of the previous planning application, it was agreed with Lancashire County Council that the use of the Department for Transport's most recently revised (July 2011) traffic growth rates would be used to estimate traffic growth up to the design year 2017. Between 2010 and 2017, the morning and evening peak hour growth rates are some 1.042 and 1.045 respectively, and when these rates are applied to the surveyed 2010 peak hour flows, result in growthed peak hour flows at 2017.
- 6.3 The diagrams at **Appendix BGH9** show 2017 base peak hour flows and comprise the addition of the 2017 growth flows and the committed development flows at **Appendix BGH8**.
- 6.4 The 2017 base peak hour performances of the junctions listed at paragraph 4.4 have been assessed using the computer programmes ARCADY, PICADY and LINSIG as appropriate and the results are summarised in the tables below with full output at **Appendix BGH10**.

Clitheroe Road/Wiswell Lane - Priority Junction**6.5 Base 2017 Morning and Evening Peak Hour Traffic Flows**

Movement	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
B – AC Left and right turn out of Wiswell Lane on to Clitheroe Road	0.40	1	0.20	0.46	1	0.24
C – AB Right turn into Wiswell Lane from Clitheroe Road	0.34	1	0.13	0.31	1	0.12

Table 6.1

- 6.6 The results above show that this junction will continue to operate within capacity during the 2017 base morning and evening peak hours given that the maximum ratio of flow to capacity (RFC) is well below the practical junction capacity of 0.85.

Clitheroe Road/Brookes Lane/King Street/Station Road**Mini Roundabout Junction****6.7 Base 2017 Morning and Evening Peak Hour Traffic Flows**

ARM	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
Arm A - Clitheroe Road	1.00	14	1.98	0.86	5	0.78
Arm B - Brookes Lane	0.06	0	0.37	0.02	0	0.27
Arm C - King Street	0.82	4	0.44	0.94	10	0.95
Arm D - Station Road	0.83	5	0.48	0.72	3	0.30

Table 6.2

- 6.8 The results above show that this junction will operate at its maximum theoretical capacity during the morning and evening peak periods under the 2017 base traffic demands.

B6246 King Street/B6246 Accrington Road/King Street Mini Roundabout Junction

6.9 Base 2017 Morning and Evening Peak Hour Traffic Flows

ARM	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
Arm A – B6246 King Street	1.17	66	5.60	0.99	18	1.51
Arm B – Accrington Road	0.69	2	0.31	0.72	3	0.31
Arm C – King Street	1.00	17	1.77	1.09	35	3.11

Table 6.3

- 6.10 The results above show that this junction will continue to operate above its maximum junction capacity during both the morning and evening peak periods under the 2017 base traffic demands.

A671 Accrington Road/B6246 Accrington Road/Springwood Picnic Site Signalised Crossroads

6.11 Base 2017 Morning and Evening Peak Hour Traffic Flows

Lane	Base 2017			
	Morning Peak Hour		Evening Peak Hour	
	DoS (%)	Queue	DoS (%)	
1/1 A671 (North) Ahead Left	43.9	6	40.1	5
1/2+ 1/3 A671 (North) Ahead Right	46.4	6	43.0	6
2/1 Spring Wood Left Ahead Right	10.1	0	12.3	1
3/2 + 3/1 A671 (South) Left Ahead	75.5	9	66.7	7
3/3 + 3/4 A671 (South) Right Ahead	64.0	10	51.2	7
4/1 B6246 Accrington Rd Right Ahead Left	74.2	10	65.7	8
PRC Over All Lanes (%)	19.2		34.9	

Table 6.4

- 6.12 The results above show that this junction will continue to operate within capacity during the 2017 base morning and evening peak scenario given that the analysis demonstrates positive Practical Reserve Capacity (PRC).

A671 Whalley Easterly Bypass/Wiswell Lane/Wiswell Shay

Priority Staggered Crossroads

6.13 Base 2017 Morning and Evening Peak Hour Traffic Flows

Movement	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
B – CD Straight ahead and left turn out of Wiswell Shay	0.4	0	0.12	0.02	0	0.12
B – A Right turn out of Wiswell Shay	0.6	0	0.28	0.02	0	0.25
AB – D Right turn into Wiswell Lane from A671 and Wiswell Shay	0.29	0	0.18	0.20	0	0.15
D – AB Straight ahead and left turn out of Wiswell Lane	0.32	0	0.19	0.18	0	0.13
D – C Right turn out of Wiswell Lane	0.26	0	0.34	0.09	0	0.23
CD – B Right turn into Wiswell Shay from A671 and Wiswell Lane	0.03	0	0.12	0.05	0	0.13

Table 6.5

- 6.14 The results above show that this junction will continue to operate within capacity during the 2017 base morning and evening peak hours. Queuing and delay at the junction are also shown to be minimal.

A59/A671 Whalley Easterly Bypass**Roundabout Junction****6.15 Base 2017 Morning and Evening Peak Hour Traffic Flows**

ARM	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
Arm A – A59 (North)	0.61	2	0.07	0.56	1	0.06
Arm B - A671	0.70	2	0.14	0.53	1	0.08
Arm C – A59 (South)	0.47	1	0.07	0.45	1	0.06

Table 6.6

6.16 The results above show that this junction will continue to operate within capacity in the morning and evening peak periods under the 2017 base traffic demands.

7.0 THE PROPOSED DEVELOPEMNT

- 7.1 This Transport Assessment assesses the likely traffic impact of the development of 3.8 hectare parcel of land off Clitheroe Road, Whalley for residential development. The application is in outline with all matters reserved. For the purposes of this Transport Assessment it is assumed that the site will be developed for some 55 houses.
- 7.2 Whilst this application is not seeking approval of access details at this stage, it is envisaged that access to the development will take the form of a simple priority controlled junction onto Clitheroe Road, as shown on the plan at **Appendix BGH11**. The design speed of the junction has been assessed assuming that a 20mph zone is introduced within Whalley, as agreed within the earlier planning application. The principle of achieving an access in this location and to this specification has previously been agreed by Lancashire County Council.
- 7.3 Elsewhere, the proposals include further measures to reduce the potential for accidents and comprises
- the introduction of gateway feature signs at the existing point of speed limit change some 250.0 metres north of the Wiswell Lane priority controlled junction.
 - localised widening along site frontage on Clitheroe Road to widen the footways on the western side.
 - variable speed message (VSM) sign on the approach to the junction with Wiswell Lane.
- 7.4 In response to public concerns as part of the earlier application, discussions were held with the local highway authority regarding the potential for the introduction of two hour on street parking restrictions within the village centre. The developer is willing to fund the introduction of these measures which would be aimed at increasing the availability of short term parking for both the existing and new village shoppers. Although the surveys outlined in section 4

showed that overall there is not an existing shortage of parking within the village, the effect of displacing long term parkers from the village centre on to other on street areas may not be fully know until the Traffic Regulation Orders are operational and the application site has been developed.

8.0 SUSTAINABLE TRANSPORT AND ACCESSIBILITY

On Foot

- 8.1 The Institution of Highways and Transportation publication [2000] 'Guidelines for providing for Journeys on Foot' notes that walking accounts for over a quarter of all journeys and four-fifths of journeys less than one mile (1.6 kilometres).
- 8.2 Walking is also an essential part of public transport travel with bus stops and in some instances railway stations usually being accessed on foot. Promoting sustainable, integrated transport involves providing good pedestrian links to public transport facilities that are currently available to the development site.
- 8.3 The IHT Guidelines also describe 'acceptable' walking distances for pedestrians without any mobility impairment. They suggest that, for commuting and education, up to 500 metres is the desirable distance, up to 1000 metres is an acceptable distance and 2000 metres is the preferred maximum.
- 8.4 In September 2001 the Department for Transport, Local Government and the Regions in conjunction with CABI published 'Better places to live: By design – A companion guide to PPG3'. This recommends that initial analyses of housing development sites within their surroundings, whether on the urban fringe or the centres of a towns, should include greater emphasis on:-
- local facilities and community infrastructure,
 - sport network, and
 - established walking and cycling routes,
- so as to achieve more sustainable patterns of movement and reduce people's reliance on private cars for making journeys. It recommends that having established a site's broad setting in terms of its relationship to a city, town or village centre, a good starting point is to examine the area within 10 minutes' (about 800.0 metres) walking distance of the site. This can help to identify the range of facilities which residents may access comfortably on foot, as well as

opportunities to reach more distant facilities by public transport.

- 8.5 Manual for Streets also identifies that walkable neighbourhoods are typically characterised by having a range of facilities which are within ten minutes (up to about 800 metres) walking distance but that this is not an upper limit and that PPG13 states that walking offers the greatest potential to replace short car trips, particularly those under 2.0 kilometres. Guidelines for Providing for Journeys on Foot (2000) sets out that the 'preferred maximum' acceptable walking distance to town centres for pedestrians without mobility impairment, which may be used for planning and evaluation purposes, should be 800 metres but it recognises:-

“.....that it is not always possible to achieve ideal results in all situations due to site constraints, costs or other practicalities and that compromises must sometimes, rightly, be made.”

and it goes on to advise that some 80% of walk journeys in urban areas are less than 1.0 mile long and that the average length is 1.0 kilometre (0.6 miles) and that this differs little by age or by sex.

- 8.6 The plan at **Appendix BGH12** shows the 800 metre walk distances measured from the centre of the site and using the most convenient pedestrian access point via the public footpath of Brookes Lane. It can be seen that the entire village of Whalley falls within the 800 metre walk distance (up to the junction of King Street/Abbey Passage) that the Institution of Highways and Transportation publication 'Guidelines for Providing for Journeys on Foot' considers as the 'desirable' walking distance to access facilities comfortably on foot. The plan attached at **Appendix BGH12** also shows the range of facilities within the centre of Whalley within the 800 metre walking distance. From this plan it can also be seen that Whalley Railway Station is within 800 metres walking distance from the centre of the site.

- 8.7 Between the site and the centre of Whalley there is continuous, well lit and overlooked footway provision which will also be enhanced as part of proposals to provide traffic calming measures on Clitheroe Road. A further plan at

Appendix BGH13 shows the 1600 and 2000 metre walking isochrones based on straight line distances from the centre of the site.

- 8.8 It is concluded that the location of the development site is such that it will encourage the opportunity to walk whatever the journey purpose and therefore the site can be considered as being very accessible by foot.

By Public Transport

- 8.9 The Institution of Highways and Transportation publication 'Planning for Public Transport in Development' states:

"The maximum walking distance to a bus stop should not exceed 400m and preferably be no more than 300m. These distances are quoted for guidance, and should not be followed slavishly if that would lead to complex or indirect bus routes"

- 8.10 The nearest bus stops to the site are situated on Clitheroe Road and are well within 400 metres from the centre of the development and therefore accord with the above guidelines. The bus stops situated on Station Road are located just outside of the 400 metre walking distance, at 450 metres via Brookes Lane, however this distance will not form a barrier to those residents wishing to utilise the bus services on Station Road. Whalley Bus Station is located some 550 metres walking distance from the centre of the development and with a wide range of services available and the encouragement of the accompanying Travel Plan, it is considered that this will also be attractive to residents of the proposed development.

- 8.11 The bus stops on Clitheroe Road are currently the most frequently served with eight services stopping and a combined frequency of seven journeys per hour from these stops during peak times. The bus stops situated on Station Road provide two services with a combined frequency of one journey per hour. The buses which utilise these stops provide services to destinations such as Clitheroe and Blackburn with journey times of some 15 and 30 minutes respectively. The bus routes that operate on Clitheroe Road and Station Road

are shown on the summary attached at **Appendix BGH14** along with full details of the service provision throughout the week.

- 8.12 As previously discussed, the nearest railway station to the site is Whalley. The station is managed by Northern Rail and lies on the Manchester to Blackburn and Clitheroe line. There are approximately two services per hour throughout the day to the above destinations.
- 8.14 It is concluded that the development site is very well situated to encourage trips by public transport as a viable alternative to the private car.

For Cyclists

- 8.15 The Department of the Environment publication [1996] 'PPG13: A Guide to Better Practice' states that the bicycle is an ideal mode of transport for journeys under 8 kilometres. PPG13 [March 2001] states that cycling "has clear potential to substitute for short car trips, particularly those under 5km, and to form part of a longer journey by public transport."
- 8.16 The plan at **Appendix BGH15** shows the 5.0 kilometre and 8.0 kilometre cycling isochrones and it can be seen that Clitheroe and Whalley are both within 5.0 kilometres of the site and the 8.0 kilometre isochrone takes in parts of Padiham along with the villages of great Harwood, Waddington, Grindleton and Chatburn. Regional Routes 90 and 91 of the Lancashire Cycleway pass close to the site, on Clitheroe Road and Station Road, and in this vicinity are on-road cycle routes.
- 8.17 It is concluded that the development site is well served by local and regional cycle routes and overall is very accessible by cycle.

Travel Planning

- 8.18 The overall accessibility of the site will be assisted by the implementation of a Site Wide Travel Plan as will be required by Lancashire County Council to further the aims and objectives of the Central and Local Government's

Sustainable Transport Policy by promoting the use of alternative modes of transport and hence reducing the need to travel by private car.

8.19 A separate Site Wide Travel Plan has therefore been prepared to accompany the planning application and once approved this will provide a detailed framework which will be used as the basis for the Travel Plan that will be implemented and maintained for the development. Lancashire County Council has confirmed that the Site Wide Travel Plan meets the submission criteria.

8.20 In addition to this, LCC has requested that individual Travel Plans (residential and nursing home) should be developed and approved by the LCC Travel Plan team along the following timescales as a condition of planning approval:

- Nursing home within 6 months of occupation.
- Residential when the development reaches full occupation.

8.21 Each Full Travel Plan needs to include the following as a minimum:

- Appointment of a named Travel Plan Coordinator
- Travel survey
- Details of cycling, pedestrian and public transport links to the site
- Details of secure, covered cycle parking
- SMART targets for non-car modes of travel
- Action plan of measures to be introduced
- Details of arrangements for monitoring and review of the Travel Plan for a period of at least 5 years.

8.22 A contribution will be provided to enable Lancashire County Council Travel Planning team to provide a range of services described in 2.1.5.16 of the Planning Obligations in Lancashire CC's paper dated September 2008.

9.0 TRAFFIC GENERATION AND DISTRIBUTION

Traffic Generation

- 9.1 As agreed with officers of Lancashire County Council as part of the previous planning application, the residential trip rates derived from the Woodlands Drive traffic survey are considered to be representative and typical of rates in Whalley therefore have been applied to the proposed 55 house development as shown in the table below.

Generated Vehicle Trips

Proposed Residential Development – Lawsonsteads Site

Assessment Period	Trip Rates per Household			Trips for 55 Houses		
	IN	OUT	2-WAY	IN	OUT	2-WAY
08:00 – 09:00	0.244	0.465	0.709	14	26	40
17:00 – 18:00	0.453	0.360	0.813	25	20	45

Table 9.1

- 9.2 It can be seen that the proposed residential development of 55 houses is likely to generate some 40 and 45 two-way traffic movements during the morning and evening peak periods respectively i.e. less than one additional trip per minute at peak times.

Development Traffic Distribution

- 9.3 Consistent with the previous planning application, the traffic likely to be generated by the proposed development has been distributed onto the local highway network based upon the existing pattern of traffic movements at each of the junctions, as shown on the diagrams at **Appendix BGH16**.

10.0 TRAFFIC IMPACT OF THE DEVELOPMENT PROPOSALS

10.1 Diagrams at **Appendix BGH17** show predicted morning and evening peak period traffic flows on the local highway network and comprise the addition of the 2017 base flows at **Appendix BGH9** and generated flows at **Appendix BGH16**.

10.2 Each of the junctions previously considered have been reassessed for the predicted 2017 flows and the appropriate future outputs are at **Appendix BGH18** and summarised in the tables below. For comparison, the base flows are also included within the tables.

10.3 Clitheroe Road/Wiswell Lane - Priority Junction

Base and Predicted 2017 Morning and Evening Peak Hour Traffic Flows

Movement	Base 2017						Predicted 2017					
	08:00 – 09:00			17:00 – 18:00			08:00 – 09:00			17:00 – 18:00		
	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (Mins)	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (mins)
B – AC Left and right turn out of Wiswell Lane	0.40	1	0.20	0.46	1	0.24	0.40	1	0.21	0.48	1	0.25
C – AB Right turn into Wiswell Lane	0.34	1	0.13	0.31	1	0.12	0.37	1	0.14	0.32	1	0.12

Table 10.1

10.4 The results above show that this junction will continue to operate within capacity during the 2017 predicted morning and evening peak hours.

10.5 Clitheroe Road/Brookes Lane/King Street/Station Road Mini Roundabout Junction

Base and Predicted 2017 Morning and Evening Peak Hour Traffic Flows

Arm	Base 2017						Predicted 2017					
	08:00 – 09:00			17:00 – 18:00			08:00 – 09:00			17:00 – 18:00		
	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (Mins)	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (mins)
Arm A - Clitheroe Road	1.00	14	1.98	0.86	5	0.78	1.03	18	2.40	0.99	14	1.75
Arm B - Brookes Lane	0.06	0	0.37	0.02	0	0.27	0.06	0	0.38	0.03	0	0.03
Arm C - King Street	0.82	4	0.44	0.94	10	0.95	0.83	4	0.45	1.04	27	2.06
Arm D - Station Road	0.83	5	0.48	0.72	3	0.30	0.84	5	0.51	0.80	4	0.42

Table 10.2

10.6 When compared with the base situation, the analyses show that the junction will operate marginally worse during both peak periods, however it is considered that the impact of the additional traffic will not be noticeable. Consistent with all the other residential applications and approvals in Whalley, it is therefore not proposed to introduce mitigation measures.

10.7 B6246 King Street/B6246 Accrington Road/King Street Mini Roundabout Junction

Base and Predicted 2017 Morning and Evening Peak Hour Traffic Flows

Arm	Base 2017						Predicted 2017					
	08:00 – 09:00			17:00 – 18:00			08:00 – 09:00			17:00 – 18:00		
	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (Mins)	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (mins)
Arm A – B6246 King Street	1.17	66	5.60	0.99	18	1.51	1.18	71	6.11	1.00	19	1.61
Arm B – Accrington Road	0.69	2	0.31	0.72	3	0.31	0.70	2	0.31	0.73	3	0.32
Arm C – King Street	1.00	17	1.77	1.09	35	3.11	1.01	18	1.85	1.10	39	3.36

Table 10.3

10.8 When compared with the base situation, the analyses show that the junction will operate marginally worse during both peak periods, however it is considered that the impact of the additional traffic will not be noticeable. Consistent with all the other residential applications and approvals in Whalley, it is therefore not proposed to introduce mitigation measures.

10.9 A671 Accrington Road/B6246 Accrington Road/Springwood Picnic Site Signalised Crossroads

Base and Predicted 2017 Morning and Evening Peak Hour Traffic Flows

Lane	Base 2017				Predicted 2017			
	Morning Peak Hour		Evening Peak Hour		Morning Peak Hour		Evening Peak Hour	
	DoS (%)	Queue	DoS (%)	Queue	DoS (%)	Queue	DoS (%)	Queue
1/1 A671 (North) Ahead Left	43.9	6	40.1	5	43.9	6	40.1	5
1/2+ 1/3 A671 (North) Ahead Right	46.4	6	43.0	6	46.4	6	43.0	6
2/1 Spring Wood Left Ahead Right	10.1	0	12.3	1	10.1	0	12.3	1
3/2 + 3/1 A671 (South) Left Ahead	75.5	9	66.7	7	75.6	10	67.0	7
3/3 + 3/4 A671 (South) Right Ahead	64.0	10	51.2	7	64.3	10	51.8	7
4/1 B6246 Accrington Rd Right Ahead Left	74.2	10	65.7	8	74.8	10	61.2	8
PRC Over All Lanes (%)	19.2		34.9		19.0		34.3	

Table 10.4

10.10 The results above show that this junction will continue to operate within capacity during the 2017 predicted morning and evening peak periods.

10.11 A671 Whalley Easterly Bypass/Wiswell Lane/Wiswell Shay**Priority Staggered Crossroads****Base and Predicted 2017 Morning and Evening Peak Hour Traffic Flows**

Movement	Base 2017						Predicted 2017					
	08:00 – 09:00			17:00 – 18:00			08:00 – 09:00			17:00 – 18:00		
	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (Mins)	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (mins)
B – CD Straight ahead and left turn out of Wiswell Shay	0.4	0	0.12	0.02	0	0.12	0.04	0	0.12	0.02	0	0.12
B – A Right turn out of Wiswell Shay	0.6	0	0.28	0.02	0	0.25	0.06	0	0.27	0.02	0	0.25
AB – D Right turn into Wiswell Lane from A671 and Wiswell Shay	0.29	0	0.18	0.20	0	0.15	0.29	0	0.18	0.21	0	0.15
D – AB Straight ahead and left turn out of Wiswell Lane	0.32	0	0.19	0.18	0	0.13	0.33	0	0.19	0.19	0	0.13
D – C Right turn out of Wiswell Lane	0.26	0	0.34	0.09	0	0.23	0.25	0	0.32	0.09	0	0.23
CD – B Right turn into Wiswell Shay from A671 and Wiswell Lane	0.03	0	0.12	0.05	0	0.13	0.03	0	0.12	0.05	0	0.13

Table 10.5

10.12 The results above show that this junction will continue to operate within capacity during the 2017 predicted morning and evening peak periods.

10.13 A59/A671 Whalley Easterly Bypass**Roundabout Junction****Base and Predicted 2017 Morning and Evening Peak Hour Traffic Flows**

Arm	Base 2017						Predicted 2017					
	08:00 – 09:00			17:00 – 18:00			08:00 – 09:00			17:00 – 18:00		
	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (mins)	RFC	Q (veh)	Mean Delay (mins)
Arm A – A59 (North)	0.61	2	0.07	0.56	1	0.06	0.61	2	0.07	0.57	1	0.06
Arm B - A671	0.70	2	0.14	0.53	1	0.08	0.71	2	0.15	0.54	1	0.08
Arm C – A59 (South)	0.47	1	0.07	0.45	1	0.06	0.47	1	0.07	0.45	1	0.06

Table 10.6

10.14 The results above show that this junction will continue to operate within capacity during the 2017 predicted morning and evening peak periods.

10.15 Clitheroe Road/Site Access - Priority Junction**Predicted 2017 Morning and Evening Peak Hour Traffic Flows**

Movement	08:00 – 09:00			17:00 – 18:00		
	RFC	Queue (veh)	Mean Delay (mins)	RFC	Queue (veh)	Mean Delay (mins)
B – AC Left and right turn out of Site Access on to Clitheroe Road	0.07	0	0.16	0.06	0	0.16
C – AB Right turn into Site Access from Clitheroe Road	0.02	0	0.08	0.03	0	0.08

Table 10.7

10.16 The results above show that this junction will continue to operate within capacity during the 2017 predicted morning and evening peak periods.

10.17 In summary, the above junction analyses demonstrate that the proposed development traffic can be accommodated on the local highway network in a

satisfactory manner. When compared with the 2017 base situation, the predicted analyses show that the junctions will operate marginally worse during both peak periods, however it is considered that the impact of the additional traffic will not be noticeable and therefore no mitigation measures are proposed, consistent with all the other residential applications and approvals in Whalley.

11.0 SUMMARY AND CONCLUSIONS

- 11.1 This transport assessment forms part of an outline planning application submitted on behalf of Commercial Estates Group (CEG) for residential development on an area of land off Clitheroe Road, Whalley for which the Local Planning Authority is Ribble Valley Borough Council and the highway authority is Lancashire County Council (LCC).
- 11.2 In January 2012, a previous outline planning application submitted by CEG for some 300 dwellings on a larger area of land was refused consent for three reasons, none of which concerned highways matters. The application included a Transport Assessment, a Revised Transport Assessment and a Travel Plan which were all based upon agreement on a variety of technical issues between this Practice acting on behalf of CEG and LCC. Many of the issues and parameters that were agreed as part of the previous planning application have formed the basis of this application and Transport Assessment.
- 11.3 Consistent with the earlier planning application, this application is in outline with all matters reserved for future determination. The illustrative plans prepared in support of the application show a development of some 55 houses, which will be accessed by way of a simple priority controlled junction on to Clitheroe Road. The design speed of the junction has been assessed assuming that a 20mph zone is introduced within Whalley, as agreed within the earlier planning application
- 11.4 A separate Site Wide Travel Plan which is also based upon the agreed content of the previous Travel Plan has been prepared and forms part of this application.
- 11.5 This Transport Assessment which is based upon Department of Transport Guidance on Transport Assessment includes consideration of committed and other proposed residential developments in Whalley. The Calderstones and

the Briery Homes have been taken as committed developments despite the fact that Calderstones is subject to satisfactory preparation of a Section 106 Agreement and the Briery Homes application has only recently been submitted. The report has considered the current usage of the local highway network, the base position at the agreed design year of 2017 and the predicted situation included the traffic likely to be generated by the development of this application site. It has also considered the sustainability and accessibility of the site including its proximity to local public transport services and the availability of services and facilities within a sustainable travelling distance by a variety of transport modes.

- 11.6 In summary, this Transport Assessment has shown that the proposed development traffic can be accommodated on the local highway network in a satisfactory manner. When compared with the 2017 base situation, the predicted analyses show that the local highway network will operate marginally worse during both peak periods, however it is considered that the impact of the additional traffic will not be noticeable and therefore no mitigation measures are proposed, consistent with all the other residential applications and approvals in Whalley. The site is well located to encourage trips by means other than the private car, and it is therefore concluded that there are no highways or transport related reasons why the proposed development should not be granted planning consent.