

Director of Partnerships
Planning and Policy
Chorley Council
Civic Offices, Union Street
Chorley
PR7 1AL

Tel 01772 534057
Email Neil.stevens@lancashire.gov.uk
Your ref D9/17/00713-716/OUTMAJ
Our ref D9/17/00713-716/OUTMAJ/NJS
Date 31st July 2018

Dear Sir

Planning Application No: 17/00713/OUTMAJ - Employment
17/00714/OUTMAJ - Dwellings
17/00715/OUTMAJ - Retail, employment, hotel and crèche
17/00716/OUTMAJ - Dwellings

Location: LAND ADJACENT TO THE NORTH AND SOUTH OF THE A674 AT BOTANY BAY, CHORLEY

Description: Referring to the notification of a planning application consultation for outline consent for employment floorspace (Use Classes B2 and B8), 288 dwellings, retail floorspace (Use Classes A1, A3, A4 & A5), employment floorspace (Use Class B1), hotel (Use Class C1), crèche / nursery (Use Class D1) and provision of associated car parking, highways, landscaping, and infrastructure and any ancillary development thereto. All matters reserved except for vehicular access which is proposed to access the existing A674 corridor, with employment, retail, employment, hotel and crèche served off the Botany Bay roundabout albeit modified and residential served off a new priority to the east off the Leeds and Liverpool Canal.

The following comments relate to the above planning applications. The Transport Assessment (TA) for the proposals (dated July 2017) was submitted with the planning applications to which LCC Highways were consulted on 1st August 2017. Since this time there has been considerable amendment and the provision of further supporting information by the developers Transport Consultant, Curtins, on behalf of the applicant FI-REM. The further information included: Transport Assessment Addendum (February 2018) and further updated traffic model outputs and indicative junction proposals. In addition Curtins provided Technical Note – 001 (dated 17/07/18). All the latest transport and highways related assessment work provided in support of the applications has been reviewed by LCC Highways. This work includes assessment carried out using conventional junction modelling (LinSig) undertaken by Curtins and microsimulation modelling by consultants, WSP on behalf of Highways England (HE). The latest plans, with proposed mitigation, have been considered and include:

- Hartwood Junction, Drawing No. TPMA1498-108, Revision B;
- M61 Junction 8, Drawing No. TPMA1498-111, Revision B;
- M61 Junction 8, Drawing No. 70046945-001, Revision PO1 (produced by WSP); and

- Euxton Lane Junction, Drawing No. TPMA1498-116, Revision A;
(Note these latest plans have been reviewed, however ALL should NOT be attached to any permission granted, see below for further detail.)

Lancashire County Council (LCC) as Local Highway Authority (LHA) is responsible for providing and maintaining a safe and reliable highway network. These comments have regard to the latest National Planning Policy Framework (NPPF). The County Council is committed to reducing congestion and delay and improving highway links and junctions in the most congested transport corridors, having regard to this application includes the corridors of A674, A6, B5252 on the local network and the strategic M61 (which is managed and maintained by Highways England). In addition other important corridors have also been considered being B6228 and the B6229.

A number of these corridors intersect and result in a number of local pinch points on the network around J8 of the M61 and at the connecting junctions around Hartwood Hall. With this in mind the present and proposed traffic systems have been considered in and around the location of proposed development whilst also having consideration to the location of the Chorley Hospital and Fire Station.

The mixed use development, which these applications relate to, is beyond the current built environment and will therefore require a suitable approach that will see the successful delivery and maintenance of infrastructure and other measures to integrate the site with the existing built environment and wider community to maximise connectivity. If such measures are not delivered and where necessary maintained by the developer, then those elements of the proposed development will become more dependent on the use of the private car. Thus all of the applications must incorporate sustainable transport measures to address the issues relating to the provision for public transport, cycling and walking modes and be self-sustaining, as there is no certainty that each will be built out in part or in full.

The Proposed Development

The mixed use development has been submitted in 4 separate applications all in outline with:

17/00713/OUTMAJ - Land adjacent to and South of Leeds Liverpool Canal, Blackburn Road– Outline planning application for employment floorspace (use classes B2 and B8) with associated highways, landscaping provision and ancillary development. All matters reserved except for access which is proposed off the existing A674 roundabout (northern arm).

17/00714/OUTMAJ - Land to the West side of Blackburn Road (B6228)– Outline planning application for the construction of up to 188 dwellings (use Class C3) with associated highways, landscaping and infrastructure provisions. All matters reserved except for access. Access served off a new junction onto Millennium Way A674.

17/00715/OUTMAJ - Land between M61 motorway and Leeds and Liverpool Canal– Outline planning application for retail floorspace, employment floorspace, hotel, creche, and provision of associated car parking, highways, landscaping and infrastructure and any ancillary development thereto. All matters reserved except for access which is proposed off the existing A674 roundabout (southern arm).

17/00716/OUTMAJ - Land to the rear of 135 Blackburn Road (B6228)– Outline planning application, with all matters reserved, for the construction of up to 100 dwellings (use Class C3) with associated highways, landscaping and infrastructure provisions.

Access served off a new junction onto Millennium Way A674, **via infrastructure identified / provided by application 17/00714/OUTMAJ.**

The developer has produced a concept plan for the whole site (Drawing No. TPMA 1498-007. This plan was produced by Curtins and has the drawing title 'Accessibility'. As the planning applications are 'Outline' at this stage, the plan will be subject to significant change.

There are a number of existing sustainable routes that are of influence including a defined cycle link from the existing A674 access roundabout to the Leeds Liverpool Canal. In addition Public Right of Way (PROW) footpath No. 26 commences from south of Moss Lane, passes through the proposed employment site to the A674, continues through the proposed retail site and over the canal at a footbridge, it then passes through the proposed residential site before ending at Blackburn Road. In addition, footpath No. 55 provides connection from Moss Road to footpath No. 26 and the proposed employment site.

Note: All applications are in outline excluding access, for the avoidance of doubt these comments considers 'access' to mean motorised access and not sustainable access points onto Blackburn Road, Leeds and Liverpool Canal (including over it), linking individual applications to the PROW network and the public highway beyond). The necessary details for these elements have not been provided as part of this planning application and I would expect these sustainable access matters to be fully addressed at the reserved matters stage.

Development Vehicular Access Arrangements

The planning application description for three of the four development proposals indicates that all matters are reserved except access (17/00713, 17/00714 and 17/00715). While application 17/00716 indicates all matters reserved. The applicant has therefore sought to demonstrate that appropriate site access can be provided.

With consideration for each application I have the following comments:

Both the employment (17/00713/OUTMAJ) and retail (17/00715/OUTMAJ) applications are served off the existing A674 roundabout albeit with some changes. With the employment served off a northern access and the retail of the southern arm, which is also the access into the existing Botany Bay. The Employment and Retail access locations are shown on Curtins Drawing No. TPMA1498-105. To satisfy lane discipline for all vehicles including HGV's from the proposed employment, the roundabout will require some modification within the highway boundary and land controlled by the applicant; this is currently NOT shown on the Curtins drawing. This is required for safety reasons to negate against side swipes from manoeuvring HGV's. The final design submitted for approval to include a suitable safety audit as well as the whole roundabout satisfying design standards. The design, supporting documentation and its delivery to be controlled by planning conditions.

The residential dwellings are served off a new priority junction on the south side of the A674, located to the northeast of the Leeds and Liverpool Canal and the employment and retail site access roundabout. The proposed residential site access junction in principle is shown in Curtins Drawing No. TPMA1498-100. The junction to include appropriate right turn provision on the A674 to allow for vehicles to safely wait and be visible from other vehicles on the A674 from the north or south in line with standards and 85%ile observed speeds (whichever is the greatest). The priority junction to satisfy visibility in both the horizontal and vertical planes. Information presented does indicate that this matter can be satisfied, however the linking road between the junction and the residential development needs to be at a similar level to the existing A674 to emphasise to drivers on the A674 of the new built environment and the

junction. Approaching vehicle speeds currently on the A674 are what would be expected in its rural setting. The final design submitted for approval to include a suitable safety audit for the junction including approach satisfying design standards and all deliverable/controllable by the applicant. The design, supporting documentation and its delivery to be controlled by planning conditions.

With regard to the information presented and land controlled by the applicant, I consider that safe and appropriate access can be provided albeit changes will be required to that presented which will be determined at the detail design stage.

Submitted Transport Assessment

The remaining sections of these statutory consultation comments address key elements within the submitted Transport Assessment and associated supporting information submitted. This will cover the following:

Traffic Figures and Traffic Forecasts

- Traffic Counts, Traffic Growth and Assessment Years
- Trip Rates
- Distribution
- Committed Development

Accident Analysis

- Review of Existing Network Collision Data
- Road Safety Audit

Sustainable Development and Site Accessibility

- Pedestrian, Cycle and Public Transport (split by land use)

Travel Plan

Internal Site Layout

Sustainable Urban Drainage Systems (SUDs)

Traffic Modelling

- Modelling Approach
- Vissim Modelling (microsimulation)
- LinSig Modelling (signal junction)

Comments on Individual Junctions Modelled and Necessary Mitigation

S278 Works

Planning Obligations and finally,

Conclusion and Recommendation

Traffic Figures and Traffic Forecasts

Traffic Counts, Traffic Growth and Assessment Years

The TA indicated that traffic surveys were undertaken at the key junctions on Friday 15th and Saturday 16th July 2016. While it was noted that Lancashire schools did not close for the summer until Friday 21st July there was some concern that the counts may not reflect a typical

neutral month. Further data was reviewed which helped to establish that the July 2016 surveys were acceptable for the purpose of the Transport Assessment of the proposals.

This survey data showed that the AM traffic peak was 07:45 to 08:45 and the PM peak occurred between 16:30 and 17:30. The Saturday peak was identified as 11:45 to 12:45.

The Transport Assessment considered future year scenarios of 2022 and 2027. In order to calculate the future year scenarios, the background traffic figures were subject to TEMPRO/NTM growth factors. The growth factors were subject to an 'alternative assumptions' adjustment with consideration for committed developments to be taken into account (see below) The future scenario years and growth factors are acceptable to LCC Highways.

Trip Rates

The TRICS database has been used to calculate trip rates for each element of the overall proposed site. The forecast trip generation is set out in Section 3 of the Transport Assessment Addendum (February 2018). Having carried out my own review, I consider the overall trip generation for the proposal is acceptable for the purpose of assessing the impact of the proposals.

Distribution

The Trip Distribution pattern for elements of the proposed development was originally based on the journey to work 2001 census data. The Transport Addendum uses the 2011 Census data to derive trip distribution and this is acceptable to LCC Highways. The distribution used in the junction modelling considers the primary distribution, however my considerations have also considered the Blackburn Road B6228 and B6229 Moss Lane corridors which will be used as an alternative route by some.

Committed Development

The TA Addendum for the application sites sets out in Section 2.6 (Table 2.5) the committed developments included in the assessment that have been agreed with LCC Highways.

The approach followed within the TA Addendum with regard to committed development and traffic growth is acceptable.

Accident Analysis

Review of Existing Network Collision Data

The July 2107 Transport assessment presented historic Personal Injury Accident (PIA) data obtained from LCC for the period between the 1st May 2008 and the 30th June 2013. The study area covered the following:

- M61 Junction 8 / A674;
- Moss Lane B6229 / A674;
- B6228 Blackburn Road;
- B6228 / Knowley Brow/Blackburn Brow Drive;
- B6228 / Northgate Drive; and
- Harpers Lane / B6228/Eaves Lane

The accident records are summarised in the July 2017 TA in Table 2.1., this information presented is out of date.

However, I have reviewed the most up to date collision data records held on LCC's Highways system and I am satisfied that the influenced network with development and all mitigation delivered (that I highlight in these comments) will not result in residual safety issues.

Road Safety Audit

An independent Stage 1 Road Safety Audit (RSA) has been carried out for the proposed improvements as presented in the Curtins TA Addendum, for the Hartwood Hall roundabout and at M61 Junction 8 roundabout.

The Stage 1 RSA identified a number of problems and provided a recommendation on each. Since the Stage 1 RSA was carried out considerable further review and analysis has been undertaken on the mitigation proposals that have led to more substantial works particularly at the M61 Junction 8 roundabout and slip roads (HE Agreed improvement scheme). Further RSA will form an integral element of the design process and all issues previously identified must be reviewed and addressed as part of the s278 detailed design works.

Sustainable Development and Site Accessibility (with development)

As indicated earlier in these comments, this mixed use development, in general is located beyond the current built environment and will require delivery and maintenance of infrastructure and other measures to maximise connectivity into the wider environment which includes that served off Blackburn Road B6228. It is important as the site is built that sustainable modes are available for use and are an alternative to the private car. I will consider each of the key land types separately.

Residential

Whilst vehicular access is solely from the A674, which is not unreasonable, it is important that residents have access to Blackburn Road and the existing provision that is available from it. It is agreed that a foot/cycle way is provided to Blackburn Road that is accessible from the residential development proposed (either application) having regard to the local topography (gradient) and requirements of residents who may be mobility impaired. The route to be of a permanent construction with lighting and be available for use throughout the year whether day or night time. The route to be managed by a maintenance agreement funded by the development. The route will provide access to Blackburn Road for cyclists, pedestrians and those using public transport served off it to key destinations between Blackburn and Chorley as well as school services.

The existing service is hourly, for the scale of development it could be considered that this existing bus frequency should be improved, however I have had regard to the four applications as a whole and the proposal is for a mixed use development with employment, retail and leisure. This proposal when complete will provide some opportunities to reduce the need to travel beyond the wider site and does deliver other major transport infrastructure, providing benefits to all transport modes. With this I consider the exiting public transport provision is at the limits of being acceptable. Walk distances from existing bus stops to the residential dwellings overall are acceptable.

Note, no public transport services use the section of the A674 where the developments are located.

Existing defined cycle routes are available on the A674 Millennium Way, these are to be improved to support cyclists needs by this development. A continuous route is available on the A674 from the site towards Chorley. The existing crash barrier which splits the existing foot/cycle way to be removed/relocated. As part of the detail design of the M61 Junction 8 changes, a safety review will be undertaken to indicate whether the barrier to be relocated to the back of cycle/footway or completely removed with a replacement fence provided. This to be conditioned. The existing narrow grass verge running parallel to the footway, between the proposed priority junction and Botany Bay roundabout to be removed extending the foot/cycle provision. The need for the existing crash barrier along this length to be reviewed at the time of further detail being available, an alternative approach may be taken, it is important that the existing environment is changed in line with the development, influencing driver behaviour in a positive way. This to be conditioned.

The ped/cycle provision towards the Blackburn Road junction is limited but satisfactory, having regard to the potential user demand, it includes a narrow way along its length (eastern side only) with a simple crossing over the A674 to the south of Moss Lane B6229 and a controlled crossing to the north of the junction with Blackburn Road B6228.

To satisfy users needs the route of existing PROW onto Blackburn Road from the residential site might need to be amended, which has its own separate process. Its progression and detail to be conditioned. It must be available to use prior to the first dwelling being occupied.

Access from the residential site to Botany Bay leisure/retail area and employment beyond to be provided by using the PROW and the bridge over the Leeds and Liverpool canal. Any changes required to support its continuous use by pedestrians and cyclists to be conditioned. At this stage, any changes have not been determined, as the application is in outline. I am not aware of discussions or agreements made between the developer and Canal and River Trust. Access using this PROW/Canal River Trust infrastructure to be conditioned.

The towpath running alongside the Leeds and Liverpool Canal forms part of a cycle network providing a good link to the wider development and beyond, any upgrading or changes secured will be contained in the Canal and Rivers Trust statutory response.

Retail/leisure

From a public transport perspective, the retail element will include a shuttle bus service between Chorley town centre and the site and possibly a number of stops on route. The service to support both staff and customers and to operate prior and post the operational hours of the retail element (to satisfy staff needs). This provision to be conditioned and be in operation from first occupation of any unit whether retail/food/leisure. Existing bus services on Blackburn road can also be used to provide access to the retail/leisure part of the site, but this assumes the residential element is built out.

For pedestrian and cycle needs, the above A674 and canal and river trust text applies. The retail element of the development will also have a sustainable access (pedestrians and cyclists)/emergency access onto Blackburn Brow via Botany Canal next to 'The Lock and Quay' Public House.

Employment

The employment site is poorly accessed by public transport, no provision is offered, with the nearest stops being on Blackburn Road which exceeds desirable walk distances to bus stops. The distance from the Blackburn Road bus stops to the Botany Bay roundabout using the existing PROW is 575m which exceeds the 400m max. However with other elements of the wider development (such as the residential) it does provide linked opportunities. The PROW

to the north of the employment site does provide some additional access opportunities from the Wheelton and Lucas Green (Whittle-le-woods) areas. Changes to support these as usable routes to be conditioned and delivered prior to them being used.

For additional pedestrian and cycle needs to the employment site, the above A674 and canal and river trust text applies.

Travel Plan

An Interim Travel Plan has been prepared and submitted at this stage. The Interim Travel Plan sets out various measures which aim to encourage sustainable travel, an approach to monitoring and review, and an Action Plan.

A Full Travel Plan and its implementation will be appropriate for this development proposal in due course. The Full Travel Plan when submitted will need to meet LCC's submission criteria and include:

- Contact details of a named Travel Plan Co-ordinator
- Results from travel survey
- Details of existing cycling, pedestrian and public transport infrastructure
- Details of the provision of cycle parking
- Objectives
- SMART Targets for non-car modes of travel, taking into account the baseline data from the survey
- Action plan of measures to be introduced, and appropriate funding
- Details of arrangements for monitoring and review of the Travel Plan for a period of at least 5 years

For development of this scale LCC Highways would request a contribution of £24,000 to enable LCC to provide a range of Travel Plan services as outlined below.

- Appraise initial Travel Plan(s) submitted to the Planning Authority and provide constructive feedback.
- Oversee the progression from the Interim Travel Plan to the Full Travel Plan/s in line with agreed timescales.
- Monitor and support the development, implementation and review of the Full Travel Plan. This will include reviewing:
 - Annual surveys
 - Progression of initiatives / actions plan
 - Targets

Sufficient funding and commitment to deliver Measure/Initiatives within the Travel Plan

If this application were to be approved LCC would request that a commitment is made by the developer to ensure suitable funding is made available to be used toward measures/initiatives that may be required if Travel Plan targets are not achieved (to be made available to the developers appointed travel plan coordinator). I would note that this funding is only to be used if the targets are not met and that these funds are not passed to the LPA or the LHA.

Internal Site Layout

As the application is in outline, at this stage limited comments are provided on layout detail, comments have been provided on motorised and non-motorised provision to and linking sites (integration/accessibility). However some general comments can apply.

Residential

It is important that the site is fully permeable and suitably integrates to the environment beyond for all users. If the site is to be considered appropriate for adoption, a detailed highway layout must be supported by the highway authority, being satisfied on all matters including internal road widths, foot/cycle way widths, suitable service verges, turning heads size, layout satisfies safety for all users (including mobility impaired), suitability for service vehicles to manoeuvre around development, visibility within highway boundary, suitable off road parking provision (if garages are to be considered must be of an appropriate size to accommodate a car), traffic calming/traffic management within. The detailed layout must have full regard to the access strategy onto the A674 as described previously. To negate against a future dispute, it is suggested that simple parameters are supported i.e. access location (separated by mode), site requirements, scale to provide greatest flexibility to layout to satisfy all interested parties.

Retail

Indicative internal layouts presented as part of the application are not supported, further detail is required on a number of matters. It is important to ensure (with an evidence base) that the site provides adequate:

- Car parking - whether within the multi-story or elsewhere and whom it serves
 - Types of parking provision and number
- Manoeuvring within the site for all modes
- Servicing provision and yards to all units
- Emergency access to all proposed units and the existing Botany Bay
- Coach parking and drop off/pick up areas
- Circulation
- Highway space to accommodate waiting vehicles to access the car park not to impact back onto the public highway. No parking/servicing to be located in areas where it could influence the operation of the public highway as vehicles are waiting to enter the site.
- Management measures and infrastructure to ensure that demand does not exceed supply which may include temporary overflow car park and or interactive signing on the public highway
 - Including car park restrictions staff/customers etc
- Servicing strategy and times of servicing which should be outside traditional peaks of the retail site
- Phasing and construction to overcome safety issues with the existing Botany Bay or elements of the wider application, impacts on canal users (including towpath) and impacts on the public highway network

Note: The above list is not comprehensive at this stage, but provides areas where further discussion is required prior to any detailed applications being submitted.

To negate against a future dispute with the applicant, it is suggested that simple parameters are supported i.e. access locations (separated by mode), site requirements, scale to provide greatest flexibility to layout to satisfy all interested parties.

Employment

Indicative internal layouts presented as part of the application are not supported, further detail is required on a number of matters. It is important to ensure (with an evidence base) that the site provides adequate:

- Car parking
- Manoeuvring within the site for all modes
- Servicing provision and yards to all units
- Links and management to the retail to control or support movement

Note: The above list is not comprehensive at this stage, but provides areas where further discussion is required prior to any detailed applications being submitted.

To negate against a future dispute with the applicant, it is suggested that simple parameters are supported i.e. access location (separated by mode), scale to provide greatest flexibility to layout to satisfy all interested parties.

Sustainable Urban Drainage Systems (SuDs)

LCC are the Lead Local Flood Authority (LLFA), as such LCC Flood Risk Assessment Team provide detailed comments during the planning process under a separate response.

The application should consider the requirements likely to be asked for in support of a SuDs drainage scheme, if deemed necessary. These considerations may significantly affect the site layout/design to include for the likes of swales, storage ponds etc. to control run off rates in accordance with SuDs guidance.

In general, LCC will seek to limit the use of culverts where alternative sustainable solutions can be found.

With regard to drainage systems within the highway, where the applicant is proposing to offer the highways for adoption, the applicant is advised to begin early discussions between the section 38 officers at Lancashire County Council, the Lead Local Flood Authority at Lancashire County Council and United Utilities as advised in the Department of Transport Advice Note "Highway Adoptions – The adoption of roads into the public highway (1980 Highways Act)", published in April 2017.

The applicant is also advised that highway surface water drainage system must not be used for the storage of any flood waters from the adoptable United Utility surface water system or any private surface water drainage system.

Traffic Modelling

Modelling Approach

As stated above, the influenced network has been modelled using a microsimulation programme (Vissim) with individual junctions considered separately using the appropriate proprietary software (LinSig).

The use of the two modelling techniques set out above is appropriate in allowing a better understanding of the complex and, at times, congested highway network in the vicinity of the proposed applications. The conventional LinSig modelling will generally give a good indication of how individual junctions could be expected to operate while the microsimulation models

give further information on how the overall network in the study area will operate with some regard to the interaction of individual vehicle movements through the network. It is typical that the two modelling approaches do give variation in the results (journey times / vehicle delay / queue lengths etc.) for a number of reasons including output parameters not being identical. However the results should be comparable i.e. within boundaries of its range and can be cautiously considered together but also in isolation to allow an informed conclusion to be drawn in regard to the impact of the development and the effect of proposed mitigation.

LCC Highways had some concern in regard to the level of variation in the results from the two modelling approaches and sought further detailed information on each modelling approach in order to reach an informed decision. Further detailed information and results were provided by Curtins and WSP, this included traffic signal timings, journey time data, latent demand data (Vissim model) and average / maximum queue length predictions.

Vissim Modelling

LCC Highways have reviewed the outputs from the latest Vissim modelling exercise for the scenarios of '2022 Do Minimum' and '2022 With Development and HE mitigation'.

The Vissim modelling indicates the network will, at peak times, operate at or close to capacity. There was some latent demand indicated in both the 'Do Minimum' and 'with Development' scenarios. In general the Vissim model indicates greater levels of queueing and delay than that forecast from the LinSig model. Whilst signal timing from both models use the same initial parameters, the use of the data and modelling approach is significantly different, with Vissim having lesser ability than Linsig to be flexible within the modelled period. This is not unexpected, however, the differences in the outputs from the two modelling approaches was a concern to LCC Highways and has influenced our requirements in regard to additional mitigation necessary to ensure overall network reliability and safety in the future. These are set out below and include measures such as queue detectors (loops), signals modernisation and performance upgrades, MOVA validation, Hospital hurry call facility, review of bus priority and signing, as well as a signing and road marking review and update (providing network reliability, safety and efficiency benefits).

LinSig Modelling

Again, LCC Highways have reviewed the outputs from the latest LinSig modelling exercise for the scenarios of '2022 Do Minimum' and '2022 With Development and HE mitigation'. LCC were also presented with the input model in order that a more detailed 'in house' review could be undertaken. A number of comments from this review process are included below under the heading 'Comments on the Individual Junctions Operation, Modelling and Necessary Mitigation'.

In general the LinSig modelling indicated that with the '2022 with mitigation' scenario, the network of junctions would operate as well as or better than the '2022 Do Minimum' (no development) scenario. While there were some elements of the modelling that could have been considered may give optimistic results it is also reasonable to note that real time signal optimisation of the proposed junction improvements could be expected to deliver greater benefits not borne out within the computer model (in association with the mitigation measures detailed below by LCC highways – and in addition to the HE agreed mitigation).

Comments on Junctions Operation, Modelling and Necessary Mitigation

With regard to mitigation as presented below and the agreement of detail and their implementation triggers to be suitably controlled through planning condition relating to each application. Any highway or transport related triggers and planning conditions to be agreed with the county council. Delivery of all works to be via s278 agreements.

A674 Blackburn Rd / B6228 Blackburn Rd Signal Controlled Junction and B6229 Corridor

Queueing is observed at times during the evening peak at the A674 Blackburn Rd / B6229 Blackburn Rd signalised junction. On occasion, right turners into the B6229 do block back and impact on the A674 eastbound through movement. This development proposal will increase traffic movements at this junction, particularly given the B6229 will present an alternative route for some movements. To address the impact of development at this junction and the B6229 corridor, the following mitigation is considered necessary:

- LCC highways require for signal (MOVA optimisation) review to address impacts to best manage the future network with review at agreed trigger points (in line with development phasing – to be agreed) and white lining scheme (including Moss Lane junction)
- Scheme of measures to be delivered on this alternative route on the B5228 Blackburn Road / Blackburn Brow corridor to address impacts to best manage the future network. The scheme expected to include the following:
 - o Speed review along length (currently 40mph)
 - o Review and update existing TRO's
 - o Road marking review and refresh in vicinity of Great Knowley
 - o Speed Indicator Device (SPID) on the approach from the north
 - o Gateway on approach to Great Knowley from north including white lining, roundells and possible carriageway narrowing (links to road marking review)
 - o Nearest bus stops to the PROW to be upgraded to quality bus (and shelter to be provided in the northbound direction towards Blackburn)

A674 Blackburn Road / B6229 Moss Lane priority junction

To address the impact of development at this junction and on the B6228 Moss Lane corridor, the following mitigation is considered necessary:

- LCC highways require a simple scheme of measures to be delivered on this alternative route on the B5229 Moss Lane corridor to address impacts to best manage the future network. The scheme expected to include the following:
 - o Review of signing onto the corridor with its 7.5t weight restriction.
 - o Consider influencing driver behaviours by changing the carriageway treatment on the B6229 at either end such as:
 - road marking including bar markings, or narrowing's
 - different surface colour at junctions,
 - raised tables.

A674 Blackburn Road / Proposed Residential site access priority junction

The residential dwellings are served off a new priority junction on the south side of the A674, located to the northeast of the employment and retail site access roundabout. The proposed residential site access junction is shown in Curtins Drawing No. TPMA1498-100

With consideration for all the latest additional information (proposed mitigation, traffic modelling and swept path analysis plans), I am satisfied with the indicative site access drawings. However see earlier text for detail relating to access visibility, the vehicular approach from within the site to the junction and foot/cycleway and safety barrier on the A674.

The above excludes sustainable access onto Blackburn Road and across the Leeds and Liverpool Canal, see earlier text.

A674 Blackburn Road / Proposed Commercial/Retail site access roundabout

Both the employment (17/00713/OUTMAJ) and retail (17/00715/OUTMAJ) applications are served off the existing A674 roundabout. With the employment served off the northern access and the retail off the southern arm, which is also the access into the existing Botany Bay. The proposed Employment and Retail access location is shown in Curtins Drawing No. TPMA1498-105

I am satisfied that an access can be provided which is inline with design standards (for the whole roundabout) which ensures that lane discipline is maintained for HGV's (in land controlled by the highway authority or by the applicant). Therefore, while the indicative Curtins access drawing is suitable for planning purposes (i.e. indicating point of access and junction type) the detail of the necessary solution **will** require kerblines changes that are not included in this plan. I am satisfied these revisions can be undertaken at detail design stage (however must be completed prior to site layout details being agreed).

A three phase approach will be undertaken at the junction being (however multiply phases may be delivered at the same trigger point - to be agreed):

- Phase 1: Modify kerblines to maintain lane discipline for circulating HGV's having regard to wingmirrors, (whole roundabout to satisfy standards)
- Phase 2: Extend 2 lane flare from the southwest (M61) to form a 2 lane approach for a distance that can accommodate a minimum 10 cars (in each lane) i.e. circa 65m
- Phase 3: Modify entry into the site to support 2 lanes (this supports site management)

However see earlier text for detail relating to access foot/cycleway and safety barrier on the A674.

The above excludes PROW changes onto Moss Lane, and from the retail development onto the Canal and across the canal or onto Botany Canal by the Lock and Quay.

A674 Blackburn Road between M61 J8 and the residential access

TRO funding to ensure parking does not take place on this section of road and Provide interactive signing east and west of the site to support car park management and use of appropriate overflow strategies/carparks elsewhere

The above excludes foot/cycle provision on the A674 which is highlighted elsewhere.

A674 / M61 Junction 8 roundabout

I would note that the M61 J8 signalised junction is managed and maintained by the county council as highway authority.

I would highlight a number of comments in regard to the LHA review of the modelling:

- The proposed M61 J8 dedicated left turn on-slip is not coded correctly in LinSig (J2.5). It should be modelled as a give way, however this is not considered a significant issue that would materially change the LHA response.
- I would note that the cycle crossing provision (controlled toucan crossing) has been maintained within the proposed scheme and modelled within Linsig.

The modelling work indicates that the proposed mitigation scheme (as agreed with HE) will provide appropriate mitigation with regard to the impact forecast from the development proposals.

LCC highways would add further requirements in regard to the scheme to be delivered as proposed and updated by HE and shown in Drawings (TPMA1498-111 Rev B & 70046945-001 Rev P01). It is LCC highways view that the following is also required:

- As a part of the delivered scheme signal optimisation (MOVA) is required with review as part of the s278 works and also at agreed trigger points (in line with development phasing – to be agreed)
- The final detailed design to identify appropriate locations for queue detectors on links as necessary, to allow better management of the future network
- Modernisation and performance upgrade of signal equipment and controller
- Technology to link associated signals both upstream and down stream
- CCTV to monitor operation

The above works to be delivered by the developer and controlled by a suitably worded condition with appropriate trigger points to be in line with development phasing – to be agreed).

A6 / A674 signalised roundabout (Hartwood Hall roundabout)

The modelling review indicates the junction, with the mitigation improvement works, can be satisfactorily managed to maintain a safe and reliable network. Some changes to the improvement scheme will be expected during the detailed design in particular, with the lane detail (right turn to A6 north, LinSig link J.37s) should be reviewed as well as the lane merge on Preston Road NB.

In addition to the agreed improvement scheme shown in Drawing TPMA1498-108 (Revision B) the following works are required to support efficient management of the network to best deliver reliability and safety benefits:

- Technology to link associated signals both upstream and down stream
- Signal equipment to be updated and controller
- Queue detectors on Maple Gove, Drumhead Road and 'Keep Clear' road marking on Millennium Way A674
- Queue detector on Hazel Grove
- Traffic signs and road markings review
- Bus priority review
- CCTV to monitor operation

A6 / Euxton Lane signalised roundabout (Hospital roundabout)

The modelling work (Linsig and Vissim) has been reviewed and it is LCC Highways considered view that mitigation is required at the Euton Lane (Hospital roundabout).

Consultant Curtains have prepared a potential improvements scheme, which replaced the signalised roundabout to a traditional signalised junction and this was modelled with LinSig. LCC has reviewed this scheme and while it demonstrates that the works would deliver some capacity benefits, it raises concerns in regard to significant cost to deliver, impact on the Goodwins Bar and Kitchen, and are the benefits proportionate to cost of delivery (this excludes the disruption caused during construction). The current requirement to facilitate u-turning at the Hospital roundabout for the properties on the northwest side of the junction would be lost with this scheme and the alternative was not considered likely to be acceptable.

However, LCC Highways consider there is an appropriate scheme which can deliver many of the benefits forecast by the now discounted Curtains scheme. This is borne out with consideration to both the Curtains LinSig modelling of the network and this junction prior to and then with their latest, but discounted, scheme. The principles of this scheme, that LCC require to be delivered to include the following:

- Widening – on the southbound approach from the north
- Traffic island to separate straight on from right turning traffic (north to south & west)
- Re-profile the central island to facilitate movement
- Queue loop detectors on appropriate links
- White lining / lane marking review and refresh
- Signing review and update as necessary
- Technology to link associated signals both upstream and down stream
- Signal optimisation / MOVA review at commencement
- Then part way through build out a further interim review (trigger to be agreed in line with phasing which is yet to be agreed)
- Final MOVA review and optimisation on substantial completion of development build out (trigger to be agreed in line with phasing which is yet to be agreed)
- Modernisation and performance upgrade of signal equipment, controller and hurry call facility at the hospital
- Bus priority
- CCTV to monitor operation

Euxton Lane / Hospital Access signal controlled junction

The modelling work (Linsig and Vissim) has been reviewed and it is LCC Highways considered view that mitigation is required at the Euton Lane (Hospital access signalised junction). Increased queueing is forecast on Euxton Lane. The Vissim model also indicates that management of the network will be required to ensure the egress from the hospital is suitable in the future. LCC Highways consider that the following is mitigation is required:

- Technology to link associated signals both upstream and down stream
- Signal optimisation / MOVA review at commencement
- Then part way through build out of the proposed development a further interim review (trigger to be agreed in line with phasing which is yet to be agreed)
- Final MOVA review and optimisation on substantial completion of development build out (trigger to be agreed in line with phasing which is yet to be agreed)
- Modernisation and performance upgrade to signal equipment, controller and hurry call facility at the hospital (a historic system was in place at the hospital)
- Bus priority
- CCTV to monitor operation

New Strawberry Fields Signalised junction on Euxton Lane

- Technology to link associated signals both upstream and down stream

Other Measures and sustainability provision

With regard to the overall influenced network and maintaining reliability, safety and efficiency, the coverage of which is as set out above, the following is also necessary:

- Signing and road marking review and update
- Bus priority review
- TRO review
- Upgrading of bus provision on Blackburn Road
- Foot/cycle way provision on A674 between the residential access and M61 J8 including removing of verge, crash barrier changes
- PROW onto Blackburn Rd
- PROW onto Moss Lane
- Note this excludes that agreed with the Canal and River trust

S278 Works

It will be expected that appropriate s278 works as detail above will be required and controlled by condition if the LPA were minded to approve this proposal. All works detailed / listed above to be delivered by s278 Agreement unless otherwise indicated (as s106 funding). All works as listed are to be detailed up and agreed prior to commencement on site, of which some are required to be agreed prior to site layout agreement (site roundabout)

Section 278 agreements (s278) are appropriate where improvements are required in the public highway, paid for by the developer (costs to include design fees, safety audits, amendments to street lighting and traffic signalling equipment and all other risks associated with highway improvements required by the development so that public funds are not used in the provision of these features.

Any highway improvement schemes agreed 'in principle' will be subject to detailed design. The Trigger points for all s278 works will be before commencement of development unless otherwise agreed with LCC and the LPA.

Planning Obligations (s106 Planning Contributions)

Should the LPA be minded to approve this application, it is considered appropriate to seek planning contributions to support improvements to sustainable transport improvements on the local highway network. This funding will be used to implement changes to limit the negative impact of this large development on the existing, at times, congested network.

The trigger point for s106 sustainable transport planning contributions should be prior to commencement of development unless otherwise agreed with LCC and the LPA.

LCC consider that the appropriate and necessary funding to achieve sustainable development would include the following:

- Contribution for improvements to enhance the pedestrian and cycle network and for PROW (where on private land not controlled by the applicant); and
- Funding for Travel Plan support

Conclusion and Recommendation

Lancashire County Council takes its responsibility seriously with respect to the current and future use of the highway network whilst also giving a high priority to supporting economic growth, the creation of jobs and access to employment, education and training.

Highway officers of the county council have worked closely with Highways England their consultants and the developer, on modelling and some principles of mitigation. Separately both the county council and Highway England have considered what is necessary to make the application acceptable. Highway England requires a number of measures on the local highway authority's network to assist the operation on the strategic network. In addition to this, from a local network perspective which is managed by the county council further measures are necessary. This has resulted in the mitigation as presented.

The modelling in general indicated that with the 2022 with mitigation, including network management measures, the network of junctions would operate as well as or better than 2022 'Do Minimum no development scenario'.

I can indicate that this development can be accommodated locally and strategically, and it does include sustainable infrastructure integrating into the wider surrounding environment. This assumes that all obligations/measures as detailed above, and that all agreements with respect to all highway improvement and related works are progressed and delivered to the satisfaction of the LHA and that all relevant planning conditions are satisfied when agreed.

A fundamental element to satisfactorily deliver this development is the provision and implementation of all infrastructure. Should the developer fail to provide any element of that required the LHA cannot support this application.

The conclusion reached requires all highway or transport related triggers and planning conditions to be agreed with the county council. I will be happy to suggest and/ or discuss suitable planning conditions / s106 details and triggers should your Council be minded to approve the application. Including a Grampian condition ensuring that phase infrastructure is delivered prior to development. The plans produced to support this application are indicative and should be used cautiously in any planning conditions.

I hope the above is of assistance in your Councils determination of the application, if you have any questions please feel free to contact me.

Yours sincerely



Neil Stevens
Highways Development Control Manager
Community Services, Lancashire County Council