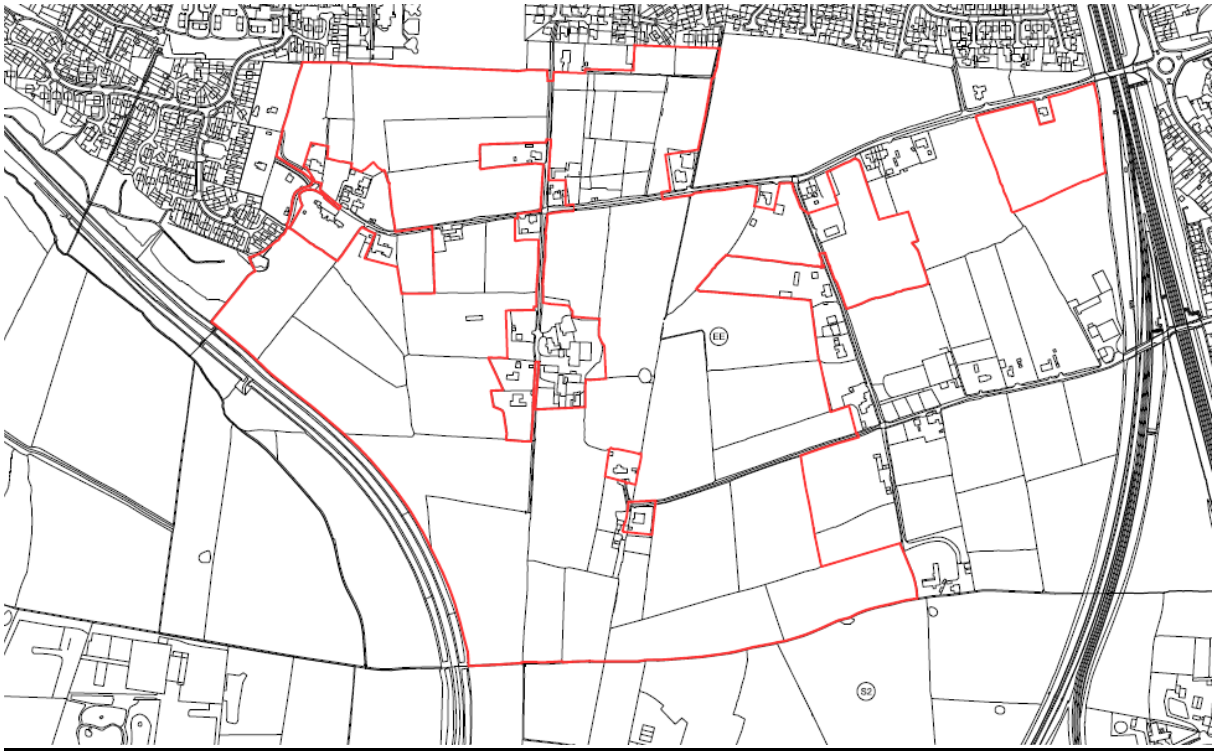
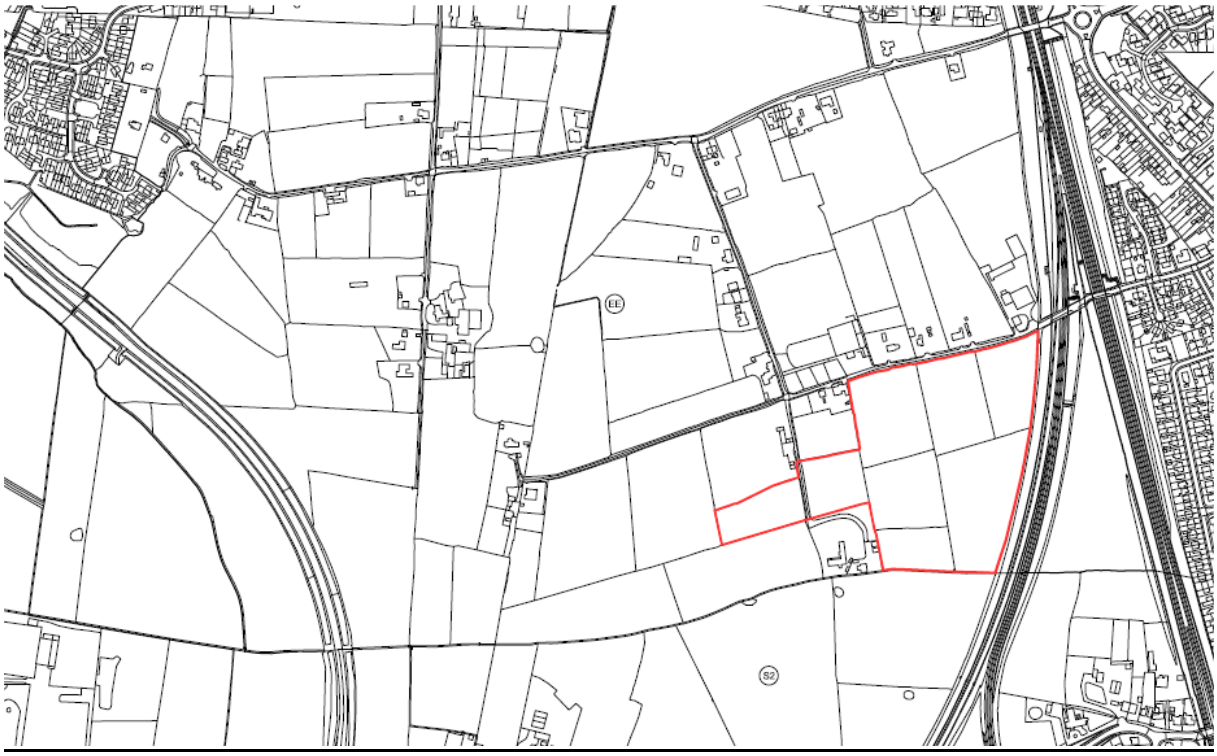
Location Plans

Application A



Application B



1. Report Summary

1.1 Members will recall that a Masterplan for the comprehensive development of the Pickering's Farm site, allocated as a Major development site under Policy C1, came before planning committee in September 2020. Members unanimously voted to refuse the Masterplan on a number of matters. These matters were set out in a letter to the developers, Taylor Wimpey and Homes England following the refusal. Although some changes have made to the current Masterplan, it has not been resubmitted as a stand along document but rather as a supporting document to accompany two outline planning applications.

1.2 The two applications are in outline with all matters reserved except for the means of access for a residential led development. This report covers both applications, Application A and Application B with separate sections relating to each were necessary.

1.3 There has been a significant amount of objections to these applications in terms of traffic and the impacts the additional traffic will have on air quality, pollution and climate change. Residents have also objected in terms of flood risk and the impact the proposals will have on the ecology of the area. Residents are also concerned over the impacts on existing residential properties and residential amenity. The points of objection are set out in the Summary of Publicity section below.

1.4 Statutory and non-statutory consultees have also objected or submitted holding objections, including LCC Highways; National Highways; Environmental Health; Public Rights of Way; Cadent; Sport England; Penwortham Town Council; Strategic Housing and Planning Policy. Others, whilst not objecting have raised concerns, including Network Rail and GMEU. Consultees advise that insufficient information has been provided; that a lack of pre-application discussion has taken place and that the timescales are too tight due to the scale of the development proposals

1.5 It is officers view that there are a number of matters which the developers have failed to resolve despite numerous meetings and correspondence, at pre-application stage, during consideration of the previous masterplan and withdrawn applications and during considerations of these current applications. The main concerns are the lack of provision of the Cross Borough Link Road; lack of an agreed comprehensive masterplan for the whole/wider allocation area; lack of modelling and evidence and the access proposals for Bee Lane.

1.6 On balance, officers consider that the proposals are policy compliant in terms of matters such as green infrastructure provision and a number of matters can only be resolved through the imposition of conditions and/or at the Reserved Matters stages such as residential amenity, ecology and flood risk. However, the proposals fail to meet policy requirements in terms of the provision of the Cross Borough Link Road and the lack of an agreed comprehensive masterplan for the whole/wider allocation area. The proposals also fail to provide suitable access proposals for Bee Lane and further modelling is required. Therefore, the applications are recommended for refusal.

1.7 The applications are subject to EIA and therefore the determination period is 16 weeks, which expires on 30th November 2021. Therefore, Members are advised to reach a decision on the applications rather than seek a deferment which would run the risk of an appeal on the grounds of non-determination.

2. Site and Surrounding Area

2.1 The allocated housing development site known as Pickering's Farm is approximately 79 ha in size and is bounded by the A582 Penwortham Way to the west; immediately to the

north by the Kingsfold area of Penwortham; to the east lies the West Coast mainline with Lostock Hall beyond and to the south is an area of Safeguarded Lane with Chain House Lane beyond.

2.2 The site is currently occupied by a number of individual properties in private ownership, the majority of which are accessed via Bee Lane, Flag Lane, Lords Lane, Moss Lane and Nib Lane which bisect the site.

2.3 These outline planning applications relates to parcels within the wider Pickering's Farm site that are within the applicants' control. These include the majority of land to the western side of the wider site and to the southern part of the site. Within these areas, the land excluded is mainly existing residential properties and their boundaries, together with farms such as Crooks Farm, Balshaw Fam on Bee Lane; Holme Farm and Proctors Farm on Moss Lane. There are large parcels of land to the north and south of Bee Lane to the eastern side of the site which are also excluded from the outline boundary.

3. Planning History

3.1 07/2018/8539/SCO Scoping Request to determine the scope of an Environmental Impact Assessment for a residential-led mixed-use development and Cross Borough Link Road (CBLR) on land to the east of Penwortham Way was determined on 13 December 2018

3.2 The Lanes Masterplan was submitted in January 2020 and was considered by planning committee at its 17th September 2020 meeting. The committee refused the Masterplan on the following grounds:
'That the application be refused as a result of concerns regarding highways; green infrastructure; ecology; drainage provisions; impact on air quality; lack of appropriate and necessary infrastructure; inappropriate mix of housing; and the impact on the residential amenity of the wider community'

3.3 07/2020/00014/FUL for the proposed cross borough link road connecting the A582 Penwortham Way and the B5254 Leyland Road was withdrawn.

3.4 Outline application 07/2020/00015/ORM with access only applied for was for a residential development of up to 1100 dwellings (C2 and C3), a local centre including retail, employment and community uses (A1, A2, A3, A4, B1 and D1), a primary school (D1), a community building (D2) to be used as an employment and skills centre (D1), green infrastructure, large extent of cross borough link road extension on land controlled by developers and associated infrastructure following demolition of existing buildings. This application was withdrawn

4. Proposal

4.1 **Application A** - Outline planning application with all matters reserved except for the principal means of access for a residential-led mixed-use development of up to 920 dwellings (Use Classes C3 and C2), a local centre including retail, employment and community uses (Use Classes E and Sui Generis), a two form entry primary school (Use Class F), green infrastructure, and associated infrastructure following the demolition of certain existing buildings. Two access points are proposed, as follows:

- Proposed Site Access Arrangement (Single Carriageway Approach) Plan Ref: VN211918-D103. This is to serve the majority of the development and will be a traffic signal controlled junction

- Proposed Site Access Arrangement (Bee Lane) Plan Ref: VN211918-D105. A limited number of dwellings will access via Bee Lane (circa 40 homes) with no vehicular link onto the Spine Road or Penwortham Way.

4.2 **Application B -** 07/2021/00887/ORM Outline planning application with all matters reserved except for the principal means of access for a residential development of up to 180 dwellings (Use Classes C3 and C2), green infrastructure and associated infrastructure. This site would be accessed from the main development proposed under Application A 07/2021/00886/ORM

4.3 These outline applications also propose key infrastructure including a site for a new two form entry primary school, a local centre and a spine road through the site which could form part of the future Cross Borough Link Road required by Policy C1

5. Supporting Documents

Plans
Red Line Plans
Land Use Parameter Plans
Building Heights Parameter Plans
Demolition Plans
Indicative Masterplan (outline)
Indicative POS Plan
Indicative Phasing Plan
Access Plans (Application A)

Documents
Revised Masterplan
Design and Access Statement (DAS) incorporating Design Code
Supporting Planning Statement
Infrastructure Deliver Schedule (IDS)
Affordable Housing Statement
Employment Skills Report
Waste Management Strategy
Biodiversity Net Gain Report and Calculation
Outline Construction Environmental Management Plan (CEMP)
Statement of Community Involvement

Environmental Statement
Chapters 1-6 Introduction; Approach; Site Description; Proposed Development; Planning Policy Context
Chapter 7 Ecology and Nature Conservation
Chapter 8 Archaeology and Heritage
Chapter 9 Landscape and Visual
Chapter 10 Ground Conditions
Chapter 11 Drainage and Flood Risk
Chapter 12 Transport and Mobility
Chapter 13 Air Quality and Dust
Chapter 14 Noise and Vibration
Chapter 15 Socioeconomics
Chapter 16 Health
Chapter 17 Climate Change
Chapter 18 Cumulative Effects
Chapter 19 Summary of Mitigation and Residual Effects
Summary

Utilities Report

6. Summary of Publicity

The Keep Bee Lane Rural Group, a group of local residents opposed to the development of the Pickering's Farm site, provided 3 letters of representation. Firstly, an in-depth analysis of the submitted Transport Assessment. They consider that the traffic assessment by Vectos is so flawed and misleading it should be deemed inadmissible:

In a second submission, the KBLR Group consider that, in their consultation response, LCC Education appear to have made incorrect assumptions and have failed to account for committed developments. They consider that, if the issues are not resolved it will have a profound impact on the availability of schooling for local residents. This will lead to substantial car movement and resultant congestion, pollution and health concerns.

In the third submission, the KBLR Group raise a number of issues relating to Flood Risk and Drainage, highlighting that the developers propose to completely re-order the site hydrology by constructing two large floodwater catchment basins.

These letters of representation were sent directly to members of the planning committee by the Group and are attached to this report as appendices.

APPENDIX 1 – KBLR Review of Transport Assessment by Vectos.
APPENDIX 2 – KBLR Review of Masterplan Flood Risk and Drainage Strategy
APPENDIX 3 – KBLR Review of LCC Education statutory consultee response

A large number (5807) of properties were notified of the applications by letter, 21 site notices posted in the vicinity of the site and a press notice published. A total of 27 individual letters of representation were received with the main topic areas and relevant points summarised below:

Masterplan
Lower Penwortham has been the poor relative when it comes to planning for the future of the existing residents. A good example is to take a look at Higher Penwortham. No big housing development but thoughtful planning introducing shops, cafes, restaurants, wine bars and reducing the flow of traffic, not increasing it
The Masterplan states "*The existing lanes, many of which are already adopted highway and PRoW, provide the opportunity to create an active travel network within both sites which respects the local setting and seeks to retain much of the rural character. This can be achieved by ensuring there is no increase in motor vehicular traffic using existing lanes, within both sites, through infrastructure and alternative routeing arrangements*." There's absolutely no evidence or suggestion how this is going to be achieved.
An earlier Masterplan stated that there was a "short term access option" so that "access will be restricted to use by existing properties on the site and 40–50 new dwellings". I cannot see any such restriction in the current Masterplan, therefore I must assume that it will be open access on to Flag Lane, which is mostly single track. Application B for 180 properties on the Flag Lane side would entail a significant increase in traffic along this width restricted road.
Both a Park and Ride scheme and a railway halt were originally proposed but neither have been included in the current Masterplan. There are no realistic sustainable transport initiatives, including leaving land aside for a tram connection into the town centre. There is no evidence that the development will be served with a suitable bus service which will be essential to persuade people to use public transport.
Fail to see how 1100 new dwellings (1350 if you include their overall Masterplan) can possibly have any regard for the existing character or appearance of the area.

Masterplan shows that the entrance/exit road to Pickering's Farm is to be severed without any alternative shown. It should be borne in mind that we both have historic and documented rights of way from our properties to the Flag Lane/Lords Lane junction which cannot be removed. The proposed road shown on Taylor Wimpey's plan crosses the access road which to the best of my knowledge belongs to neither Taylor Wimpey nor Homes England.

Access

How will the access work? If it is via Pope Lane/Kingsfold end there will be non-stop traffic
Masterplan makes specific reference to the construction of a new bridge over the west coast line to access Leyland Road. This will have a massive increase in cars and will put pressure on small highways in the area
There appears to be some form of proposed access restrictions to be applied initially at the Bee lane junction where is meets the Borough Link road. There is no scope for any alterations or restrictions at the Bee lane junction that effect the entry or egress from Bee Lane for its residents.
A lot of detail has been documented in relation to access from the Penwortham by-pass side of the development but a distinct lack of detail regarding what is required at the Bee lane junction.
Road plans are based on vehicle sizes from 2006, surely that requires updating as in the intervening years cars have actually got larger.
Dangerous access to and from the site has not been addressed.

Link Road

Until the CBLR is fully completed a significant amount of traffic will use Flag Lane and Bee Lane to access and exit the site. Neither Flag Lane nor Bee Lane is suitable for such an increase in traffic, especially the single way railway bridges on Flag Lane
The CBLR, along with a suitable bridge over the West Coast Main Line should be in place before any houses are built otherwise it will be unlikely to materialise.
Planning for the proposed development should not proceed until all planning for the road network has been completed and costed.
There is no doubt that extensive works will be required. At the very least it will require a new dual lane vehicle bridge spanning the West Coast main line and considerable road network modifications.
This above works required will be of great cost and as a concerned tax payer I feel that both sides of the proposed development should be costed and that works completed prior to any planning consent being granted at the cost of any potential developer.

Traffic

Extra traffic on Kingsfold Drive is a concern
Cop Lane/Pope Lane is used as a rat run
Already a heavy volume of traffic
Traffic survey needs to be carried out around the Hill Road South junction with Cop Lane between 0745 and 0930 and also between 1530 and 1800 to show the volume of traffic
By my maths nearly 1,000 homes with 2 to 3 cars etc at each residence means there will be increased pollution and congestion on the road system from 2,000 extra vehicles.
How will a double intake school have sufficient drop off and collection for parents to park? this with surly have an impact on nearby roads for example Bramble Court which at present is a quiet residential cul-de -sac with a lot of residents being retired - can SRBC/TW provide this residents with reassurance that their road will not be used as a car park?
Special school pupils are often late due to transport being stuck in traffic
A significant impact on the traffic on Leyland Road from development off The Cawsey
Traffic backs all the way into Lostock Hall. Will cause longer stationary traffic
Leyland Road needs to be considered and how to ensure free flowing traffic before addition of more houses

The congestion. The traffic is terrible on Leyland rd already. I am a virtual prisoner in my home for hours. I don't believe looking at the report they have captured accurately the amount of traffic that will increase with this development.
first hand experience in seeing the almost unstoppable increase in the traffic that as becomes a real problem to everyone.
There was a time maybe ten years ago when the traffic saturation was beginning to increase quite gradually, now with the proposed building of thousands of houses in this very small area of what was a rural community is a major worry
mass increase in traffic will come into conflict with a shortfall of local amenities and a shortfall in quality of life.
The plan will result in significant traffic congestion despite the opening of the new link road opposite Bee Lane through to Carrwood Road
The development will potentially introduce an extra 2000+ vehicles onto a road network that is already over congested
This will inevitably lead to more accidents and make the currently difficult travel through the area significantly worse
The Cawsey link road has introduced additional traffic
Taylor Wimpey chose to update their traffic flow figures during the pandemic and the “Work from Home if possible”
Absence of local employment opportunities means that this will be a commuter development with all residents commuting elsewhere by car. This will exacerbate the issues of congestion and air quality again. The lack of demand for freehold commercial properties and the absence of any enquiries will mean that the space allocated is not used and is returned to housing after a short time resulting in yet more vehicle congestion and reduction in air quality.
The traffic figures used in the Masterplan appear to have been collected during the Covid lockdown/”Work from Home” period and are thus unrepresentative of reality.
Bee Lane access is likely to be in excess of the unsubstantiated predictions thus contributing to a worsened air quality in the vicinity. The restricted width of the rail bridge in conjunction with the
increased traffic flow would increase the risk of vehicular and pedestrian collision.
The gateway junction on the A582 will lead to not only an increase in traffic levels, but an associated decrease in average speeds, increased NO2 and other pollutants.

<u>Air Quality and Pollution</u>
Traffic causes pollution, and impact on air quality
Pollution due to heavy traffic. This was partially resolved with the Penwortham bypass and the opening of the link road to Walton le Dale. This will all be undone
Idling traffic causes pollution
The air quality is the worst in the area at the tardy gate. Another 2000 homes and the cars that go with them are going to make this worse, and will adversely affect the health of all residents.
Health and well-being of the residents now and in the future is and will be greatly Compromised
The additional car and commercial vehicle traffic will result in a significant worsening of the air quality in Lostock Hall, Penwortham and Walton-le-Dale. All three areas are currently designated as AQMAs.
There is mention of charging points for Electric Vehicles, but only for those properties with a garage or a driveway and then only one per property. What are Taylor Wimpey’s plans for the houses without driveways? Will they be providing long extension leads for EV owners to drape across the hedges and footpaths?

<u>Railway Bridges</u>
The bridges over the railway are single track, in a state of disrepair, and not suitable for the amount of traffic that are expected to take.

Not clear in the report who is responsible for upgrading or rebuilding these bridges and I don't want my cash strapped council to be picking up the tab.

Climate Change

this will add to climate change at a time when the opposite is vital.
The only way an out of the way development like this could be allowed would be with a 15 minute bus service, a new railway station and priority cycle lanes to make a 'green' example of the way forward - not more of the same failed developments.
The Masterplan shows no sustainable challenging Climate Change design incorporated within it. "Local and combined authorities are at the cutting edge of the climate change challenge because they have responsibility for decisions that are vital to our collective future." [Source:Rising to the Climate Crisis - A Guide for Local Authorities on Planning for Climate Change: Town and Country Planning Association (TCPA) and the Royal Town Planning Institute (RTPI) 2018]. The destruction of green spaces and removal of trees will have a detrimental effect.
An overall concern is that the Masterplan talks about getting to Carbon Neutral by 2030. Have we learned nothing from the last couple of years (or more) that action needs to be taken now? All new developments should be immediately Carbon Neutral and fully equipped for fossil fuel free living otherwise someone other than the developers will pick up the bill for retroactively upgrading the new builds to comply with what we already know is expected in the near future.
The current Government's policy is to phase out the use of gas for home heating, yet Taylor Wimpey's plan is for the first 250 homes (at least) to be supplied with gas.
Damage to the environment. Emergency Climate Change v house building and materials used.

Infrastructure

The scale of the development, lack of infrastructure, ie roads, reduction in green space, flooding, biodiversity loss, air quality. I wish my objections to be ongoing.
Still no infrastructure ....no new bridge access.....ALL the reasons that were rejected the last time
round have still not been addressed

Green Infrastructure

This is one of the only green spaces left in the area. I walk my dog here as it is quiet and safe. It is good for the soul to be able to see the cows and horses in the fields, and many of your voters spend a lovely afternoon walking in this area. In a time when mental well-being is higher profile than ever, destroying this safe space will have a negative impact on local people that use it.
This development will erode the small green belt which separates the southern towns and villages from Preston City sprawl.
Loss of green space separating the communities of Penwortham Lostock Hall & Farington.

Residential Amenity

No provision for existing residents been offered up, local residents will be subject to living on a building site for many years existing properties to be over looked and privacy taken away the type of planning application we need is for improvement of services and amenities for existing residents
Steady decline in the quality of life for the existing residents. Increase in anti-social behaviour in the Kingsfold area which will only get worse
Two and a half/Three storey properties are not appropriate to the existing rural area. None of the current properties are of this size.

Community Facilities

Please provide information who will fund the school after the 2 year period expires?
The 3 G sports pitches mentioned in the new master plan - would this be handed over to the council for adoption?
Local infrastructure is already under pressure and despite a planned new two form entry primary school further places will be needed. The local primary school is already over-subscribed.
There are significant deficiencies in social care/health facilities, e.g. doctors, dentists, care homes. Whilst the Masterplan shows an allocated space for a community centre there is no funding for any additional social services in the area and these spaces will, no doubt, simply revert to housing use after a short time frame.
A new 2 entry Primary school is planned however there is no apparent commitment to fund its staffing. Can LCC afford to staff it?
The proposed location of the school is likely to introduce additional vehicular traffic and parking to Kingsfold Drive and Bramble Court as parents/carers seek to avoid the A582 access route.
The school is also located next to a surface water management zone which may pose an increased risk to child safety.
The proposed play area and village green are positioned where it is subject to considerable flooding over a period of many months which would thus render it unusable.
Houses built on this green field will not meet the housing need for small units where there is established public transport and support services but will just further flood South Ribble with large poorly designed and built new homes while many similar lie empty due to recent overdevelopment

<u>Flood Risk and Drainage</u>
The land floods every year, what is in place to ensure 900 homes do not make this worse.
The area is renowned for Flooding
There is serious flooding in this area, which appears to have been over looked. I have witnessed lakes in the fields. There were areas nearby flooded last week. Why would you add to this by building in fields that are obviously a flood risk
1100 additional homes within one catchment will put significant strain on the existing sewerage system. I am led to believe that there are already capacity issues in the local sewer network and treatment capacity issues at the local treatment works in Walton-le-Dale. This is without considering the sewerage requirements of existing residents whose properties are not currently connected to the sewerage system.
Currently the 224 acres of green fields act to absorb rainwater. This reduces the volume of water reaching field ditches and significantly slows its departure from the site. A full development of the site, even with SuDS, will lead to rainwater running off significantly faster and will almost certainly add volume at critical times to the currently flooding issues at Coote Lane, School Lane, Middleforth and to the access to Pickering's Farm itself. The Environment Agency obviously has little knowledge of the area if they claim that the flooding risk is low, as the current residents will confirm that Flag Lane and Lords Lane suffer from flooding and as already stated access to Pickering's Farm is often affected, as much as a depth of 18 inches, when there is heavy rainfall due to rainwater run-off from the surrounding fields which are part of the proposed development resulting in an inability to access or exit the property.
The area south of Bee Lane, between the dairy and Lords Lane floods every winter, with flood water often covering Bee Lane and Flag Lane.

<u>Ecology</u>
Where do all the birds, bats, hedgehogs and deer go – there is not much green space left
Ecology report the survey under taken of Pickering's will ride roughshod and destroy valuable wildlife, in its present form all bar 5 trees and all hedgerows can be ripped out! The planning should be refused on these issues alone!
There are lots of wildlife in the area; barn owls, bats, buzzards, hedgehogs and

many other endangered animals live here.
Habitat loss is playing a huge decline in Bee populations, which is disastrous for all. It was named Bee lane for a reason.
There will be a significant adverse impact on nature conservation and biodiversity with the loss of farmland and orchard habitat for a large number/variety of birds, mammals and invertebrates. The current scoping reports are inadequate covering only 50% of the site and avoiding the wildlife hotspots

Other Comments
There are plenty of brown field sites such as the Vernon Carus mill site that should be utilised first.
There is a limit to what any area can absorb before it will make everyone lives a misery, we should be improving the quality of life in these difficult times, instead we are following each other to a dangerous and non-reversible situation where mass construction of houses,
The application is largely the same as the previous Pickering's Farm application which was dismissed by SRBC Planning Committee;
The plan will erode what little is left of the existing greenbelt area between Penwortham and Lostock Hall resulting in further urban sprawl and further loss of distinct communities;
Further house building of this magnitude is not required in the local area;
The type of housing proposed will not meet local need;
The proposed plan will take a number of years to complete resulting in local disruption for an unacceptable prolonged period
Crime in the area is already at unacceptable levels with anti-social behaviour and burglary of particular note. Police resources are currently stretched, and this development will only serve to stretch them even further.
The idea of having a mobility hub with the provision of e-scooters is worrying. Regular news items have identified the anti-social use and injuries to pedestrians and other road users caused by incorrect usage of this misguided form of transport due to the current lack of effective regulation.
Overdevelopment in the South Ribble area and an inappropriate development. Loss of flora and fauna. Damage to the environment. Emergency Climate Change v house building and materials used. Missing and misleading information. Pylons - Green area for recreation. New Masterplan.
Highways and existing traffic congestion. Amenities and Services including GP's surgeries, dentist, schools etc. already overstretched. Flooding and drainage

7. Summary of Consultations

7.1 **Lancashire County Council Highways** have reviewed the submitted Transport Assessment (TA) and associated scheme correspondence. Based on the submitted documents, there are several matters they are unable to conclude on due to lack of acceptable information. In addition, there are other matters which, as presented, are not supported by LCC Highways. Therefore, the only conclusion that LCC Highways can reach, based on the documentation presented, is one of **non-support**.

LCC Highways advise they have a number of concerns with all aspects of what has been submitted. These are reported fully in the body of this report below but in summary the concerns relate to the following:

Masterplan – LCC Highways consider the masterplan Principles and Mobility Strategy as presented does not demonstrate the delivery of the infrastructure necessary to support the scale of development proposed.

Transport Assessment – The approach used in the TA is not agreed by LCC Highways at this stage. That presented is not an assessment of impact that can be scrutinised by all.

'Vision and Validate' – the approach as presented is aspirational. While LCC Highways support proposals that will deliver significant modal shift, these must be realistic and deliver the necessary access to all modes of transport that will be required to support development proposals. Any vision presented must be evidence based.

Bee Lane Access - LCC Highways are very concerned as Bee Lane remains 'as is' and it is proposed that this constrained pinch point is considered suitable for 2 way movement with the residual width available for a 'Pedestrian Clear Zone'. LCC Highways disagree with this suggestion.

Public Transport - LCC Highways have concerns with what is being proposed, as follows:
• 30min service not being suitable to satisfy customers' needs
• No detail on the duration of the service
• Don't know about walking distances from all dwellings at stages of development due to lack of masterplan
• No detail on the internal provisions that ensures patrons are comfortable, secure, with ease access
• No evidence is presented that it can be sustained indefinitely without burden to existing services or to the public purse.
• Incomplete approach to Public Transport (PT) and isolated.

Parking - The TA makes reference from a SR parking standard perspective that the site is located in an Area C (other areas) with greater level of parking for non-dwelling related uses. Therefore, it appears that maximums are being progressed which is not in accordance with their strategy. This promotes access and use to the private car for all land uses including residential dwellings.

Cycling and walking - No details provided to enable LCC Highways to make comment on or how this provision suitably and seamlessly integrates into the local and wider environment.

7.2 **National Highways (formerly Highways England)** have advised that the applications should not be approved before 30th January 2022. The have reviewed the submitted Transport Assessment (TA) and Framework Travel Plan (FTP). National Highways advise that the TA outlines the Transport and Mobility Strategy (TMS) for the site. The TMS is outlined to have four stages which are intended to help create a sustainable development. The four stages are:

1) Design: Creating communities where the automatic reaction is not upon leaving home to jump into a car.
2) Choice: Providing the infrastructure and facilities to minimise reliance on any single option of transport.
3) Behaviour: Educating people on the options and consequences of mobility.
4) Network Management: Managing the road network in accordance with national and local policy with walking at the top of the pyramid followed by cycling, public transport and car.

The overall objective of the TMS is stated not follow a predict and provide approach to delivering more road capacity to the detriment of investment for other modes of travel choice.

The following is recommended by National Highways:
• That local junction modelling is carried out for the proposed site accesses using industry standard software such as LinSig/Junctions 9 software where appropriate.
• Further information is provided on consultations carried out with the local bus operators in regard to the public transport strategy for the site.

• That consultation is held with SRBC and LCC regarding the proposed active travel route improvements and also how they may be sustained over the longer term.

In respect of the FTP, National Highways consider it to be reasonable. However, they have identified the following with regards to the proposed measures set out within the FTP which can help ensure the effectiveness of the TP measures and ultimately achieve the key objective in minimising the level of single occupancy vehicle travel generated by the proposals:

• It is not stated within the FTP what this 10% reduction is based on ie NTS levels shown in the TA or 10% below the levels stated in the baseline surveys. For clarity, any future TP should contain details of what this 10% reduction is based upon.
• Increased modal share for car sharing and public transport use to and from the development is likely to make the key difference in terms of reducing the impact of the development on the SRN. It is noted that car sharing is proposed within the FTP, therefore, increased targets for car sharing are encouraged for future revisions of the TP.
• National Highways would welcome more information around implementation of the TP

In summary, the findings of their review are as follows:
• No scoping exercise was carried out to inform the TA or TP for this application
• Further information is requested in several areas, including but not limited to, the trip generation, modelling work and aspirations to sustainable travel

7.3 **Network Rail** have provided the following comments:
1. The intention not to delineate highway and footway traffic by means of a kerb is a safety concern on the Bee Lane bridge. Pedestrians are likely to be unaware of the associated increased risk to themselves and if in hours of darkness or if distracted by the use of headphones/ mobile phones, the probability of an accident occurring whereby the drivers takes collision avoidance action and hits the bridge structure, could be greater.
2. The notable increase proposed in mixed use traffic will increase the risk of accidents/ incidents occurring on the Bee Lane bridge. In the event that a vehicle strikes the structure it could be necessary for Network Rail to close the bridge/ highway while it undertakes safety inspections and/or repairs. The duration of such a closure would be dependent on the severity and position of the impact. While the probability of an accident occurring on the bridge might be considered low, the subsequent disruption to all users could be significant.
3. As part mitigation of the aforementioned risks the installation of vehicle incursion and traffic calming measures should proposed on the bridge approaches.
4. Use of the Bee Lane and Flag Lane bridges by construction traffic associated with the project proposals should not be permitted as the risk of traffic conflicts/ accidents would increase. Should any exceptions be proposed these should be pre-agreed with NR and be required to avoid peak travel and school drop-off/ collection times
5. The assumed number of 'active travel' users currently appears to be limited to 40 dwellings for Bee Lane bridge. An estimated number should be supplied which reflects the assumed number of 'active travel' users once the 'full' development is completed and occupied. Assumed no vehicular access to the new development from Flag Lane bridge.
6. The influx of residents occupying properties adjacent to the operational railway, combined with the increased number of pedestrians using Bee Lane overbridge, will increase the risk of trespass and vandalism on the operational railway. Current suitability of all existing adjacent Network Rail boundary fences must therefore be assessed and upgraded as necessary, at the project's cost.
7. The proposed Cross Borough Link Road provision to include the provision of a new bridge over the West Coast Main line in due course as the Bee Lane bridge is not suitable for the proposed future increase in traffic.

8. Bee Lane bridge and Flag Lane bridge are owned and maintained by Network Rail and no works are to be undertaken to the bridge without consultation with and permission of unless instructed by Network Rail.

Network Rail require a number of conditions be imposed should permission be granted, in respect of the submission of a method statement and risk assessment; provision of a suitable trespass proof fence adjacent to the boundary with the railway; submission of details of scaffolding works within 10m of the railway boundary; a risk assessment and method statement for any vibro-impact works on site; submission of details of the disposal of both surface water and foul water drainage directed away from the railway; submission of details of ground levels, earthworks and excavations to be carried out near to the railway boundary; submission of details of appropriate vehicle safety protection measures along the boundary with the railway; submission of details of the BAPA.

7.4 **Lancashire County Council Public Right of Way** do not support the applications at this stage and advise that the applications affect a number of Public Rights of Way, as follows:
Fp57 South Ribble Penwortham (7-9-Fp57)
Fp56 South Ribble Penwortham (7-9-Fp56)
Fp55 South Ribble Penwortham (7-9-Fp55)
Fp54 South Ribble Penwortham (7-9-Fp54)
Fp52 South Ribble Penwortham (7-9-Fp52)
Fp50 South Ribble Penwortham (7-9-Fp50)
Fp49 South Ribble Penwortham (7-9-Fp49)
Fp46 South Ribble Penwortham (7-9-Fp46)
Fp43 South Ribble Penwortham (7-9-Fp43)
Fp4 South Ribble Farington (7-4-Fp4)

The Public Rights of Way Team have made a number of observations, as reported in the 'Public Rights of Way' section of this report. They wold also require S106 contributions amounting to £786,000 to carry out the improvement to the footpath network.

7.5 **Environmental Health** comment that the applications are of a significant size and have the potential to adversely impact on the surrounding area, both during what will be a protracted development/construction phase and the operational phase.

It is understood that the development of this site was to coincide with the completion of a cross borough link road taking in the new Cawsey route and continuing the road across to the A582. The application is to now move forward without the cross-borough link road and therefore there is no guarantee that if permission is granted the cross borough link will be constructed. This is likely to have significant adverse implications on the air quality in the declared AQMA of Lostock Hall.

In terms of Contaminated Land, EH advise that a phase I contaminated land assessment identifies the potential for contamination at locations across the site, although no details are provided identifying these locations. Potential contaminants include asbestos from historic farm buildings and Hydrocarbons from historic vehicle repair centres and a dairy, made ground and filled ground have also been identified. The report concludes that further investigations are required and therefore conditions to secure this would be required.

In terms of the submitted air quality assessment (AQA), this is based on the current traffic assessment and distribution of traffic. It is understood that Lancashire Highways have some concerns over this assessment. Should the traffic assessment not be accepted by the Highways Authority or should any amendments be required which alter the proposed traffic

distribution from that on which the air quality assessment is based, then the air quality assessment is no longer valid and will need to be reviewed.

The submitted air quality assessment methodology has been undertaken in line with the Councils low emissions strategy methodology. This has identified a damage cost on air quality for the development and some mitigation measures have been suggested but these include standard requirements for all developments. Therefore, EH consider that, while the air quality report methodology and conclusion is acceptable, insufficient mitigation has been identified to make the development acceptable and therefore object to the applications on the grounds of inadequate information to address air quality impacts.

In terms of the submitted noise assessment, EH advise that the application is only outline and a full assessment of the impact on the development or from the development cannot be made. As such an additional noise assessment will be required for each phase of the development as part of the reserve matters application.

In terms of Climate Change, EH advise that the proposed development is one of the biggest to be seen in South Ribble which will take until 2035 to be completed. Therefore, suggested measures that will reduce the current CO2 emission rate by 15% is a far cry from what is really required. Given its size, the scheme is ideally suited to improved carbon reduction measures. Additionally, the is no mention of measures for the reduction of water usage within the development.

In summary, EH consider that the applicant has not provided a sustainable or appropriate development proposal in line with the basic requirements of the National Planning Policy Framework. Therefore, EH object to the development on these grounds.

However, should permission be granted, EH require a number of conditions be imposed in respect of the submission of a Dust Management Plan; provision of Wheel Wash facilities; details at reserve matters of the location of the site compound and storage yard; controls on the hours of construction and deliveries of construction materials or removal of construction waste; that access to the site during the site preparation and construction be made via Penwortham Way and not through the Lostock Hall; details at reserve matters stages of any piling activities; at reserve matters stage a full contaminated land assessment be carried out and submitted; advisory details should any adverse ground conditions be discovered during construction works; at reserve matters stage an acoustic survey shall be undertaken and submitted; at reserve matters stage details of any proposed extraction/ventilation systems and an assessment of the potential impact of odour; at reserve matters stage full details of the waste storage facilities within the site; at reserve matters stage details on the Air Quality additional mitigation measures; that electric vehicle recharge points be provided to every property, and 10% of parking bays, both residential and commercial; that no solid fuel appliances shall be installed; that a Full Travel Plan be submitted and that 1 year of air quality monitoring following 80% occupancy of the development be carried out.

7.6 **Police Architectural Liaison Officer** recommends that it is a condition of all planning applications associated with the larger scheme for the area that the police preferred security specification Secured by Design (SBD) certification is achieved.

A development of this size and scale has the potential to create additional demand on local policing resources, therefore in order to create a safe and secure environment, crime prevention strategies should be integrated into the design of the development at the earliest opportunity. Secured by Design certified developments have been proven to experience less vehicle crime, burglary and criminal damage.

7.7 **Electricity Northwest** advise that the development could have an impact on infrastructure as it is adjacent to or affects Electricity North West's operational land and electricity distribution assets. Therefore, they have provided two documents produced by the Health and Safety Executive entitled 'Avoiding danger from underground services'; and 'Avoidance of danger from overhead electric lines'.

7.8 **Cadent** have placed a holding objection, advising that if the application effects on their high pressure pipelines, it is a statutory requirement to input the details in the HSE's Planning Advice Web App. Cadent also advise that they may have a Deed of Easement on the pipeline which provide a right of access for a number of functions

7.9 **Health and Safety Executive (HSE)** have been consulted both directly and through their Planning Advice Web App. The Web App confirmed that there are no major accident hazard pipe lines within the site and therefore the HSE does not need to be consulted on any development on the site. No response has been received from the HSE directly.

7.10 **Calico Employment Skills** consider that the two applications will potentially provide significant employment and skills opportunities for the local area. However, from experience developers evade where possible their responsibilities unless they are conditioned to make a commitment. As an absolute minimum Calico would expect a national developer to commit to and deliver an employment and skills commitment that is relevant, proportionate and with measurable outcomes. Therefore, a condition would be required to secure this commitment.

7.11 **Strategic Housing** advise that the proposal(s) are supported by an Affordable Housing Statement produced by Tetlow King. This document provides background information on the housing needs nationally and locally and concludes regarding the provision of 30% affordable housing amounting to up to 330 dwellings. Furthermore, the submission identifies that a range of tenures will be provided though there is no firm commitment with regard to what the split of tenures would be. Furthermore, the Supporting Planning Statement defers the consideration of the tenure mix and size and type of dwelling to an Affordable Housing Delivery Scheme.

The current policy for the area seeks a tenure split of 70% rent and 30% intermediate provision. From the latest housing needs data and evidence, the requirements are clearly in the rental area. The deference to a subsequent Affordable Housing Delivery Scheme gives no confidence that the developer would be willing to meet that tenure split. It is considered therefore that this split should be agreed now rather than deferring to a subsequent submission. It appears highly unusual to seek to defer deliberation of an important material consideration to a later date. This concern is further emphasised by the position which was being portrayed for the previous submission whereby the overall offer for affordable provision was pitched very low on "viability" grounds.

A key requirement of the Penwortham Neighbourhood Plan is for older persons and single storey accommodation at a rate of 10%. It is noted that the Supporting Planning Statement sets an aim of the developer to provide this is subsequent reserved matters. There is a lack of detail on this which would add confidence to this being met with no reference to phasing and delivery. Further detail on how and when such provision will be met is required.

7.12 **Lancashire County Council Historic Environment Team** comment that Chapter 8 of the Environmental Statement proposes that "*A phased approach would be adopted to mitigate any potential impacts during the construction phase to currently unknown archaeological remains that may be located within the site. The first phase would consist of archaeological evaluation via geophysical survey and trial trenching within areas of the site subject to construction work*s." The Historic Environment Team is of the opinion that such an

approach would be appropriate given the archaeological potential of the site, and should planning permission be granted, such works should be secured by condition.

7.13 **Lancashire Fire and Rescue** advise that it should be ensured that the scheme fully meets all the requirements of Building Regulations Approved Document B, Part B5 'Access and facilities for the Fire Service'. Additionally, the proposal should be provided with suitable provision of Fire Fighting water. Any provisions should comply with National Guidance. Finally, the Local Authority Building Control/ Approved Inspector and Fire Service should be consulted at the earliest opportunity where more specific advice can be offered.

7.14 **Environment Agency** have no objections to the proposed development but provide advice on the use and generation of waste; groundwater protection; fisheries and biodiversity; and the disposal of surface water

7.14 **Local Lead Flood Authority (LLFA)** has no objection to the proposed development subject to the inclusion of conditions relating to the submission of a Final Sustainable Drainage scheme as part of any reserved matters application. This should include a detailed surface water sustainable drainage scheme based upon the site-specific flood risk assessment and sustainable drainage principles set out in the National Planning Policy Framework, Planning Practice Guidance and Defra Technical Standards for Sustainable Drainage Systems. The Final sustainable drainage should include a layout plan; Cross section drawings of attenuation ponds and flood basins; and be in accordance with the principles and mitigation measures in the submitted Flood Risk Assessment Report no.6337/R2 dated August 2021
It should also include Sustainable drainage flow calculations; a plan identifying areas contributing to the drainage network; measures taken to prevent flooding and pollution of the receiving groundwater and/or surface waters, including watercourses; a plan to show overland flow routes and flood water exceedance routes and flood extents; evidence of an assessment of the site conditions to include site investigation and test results to confirm infiltrations rates; a breakdown of attenuation in pipes, manholes, swales, attenuation ponds and flood basins.

The LLFA require a condition requiring the submission of details of how surface water and pollution prevention will be managed during each construction phase and, as a minimum, should include measures taken to ensure surface water flows are retained on-site during construction and, if surface water flows are to be discharged they are done so at a restricted rate to be agreed with the LLFA; and measures taken to prevent siltation and pollutants from the site into any receiving groundwater and/or surface waters, including watercourses.

The LLFA also require a condition requiring the submission of an Operation and Maintenance Plan and Verification Report of Constructed Sustainable Drainage System. The Verification Report must demonstrate that the sustainable drainage system has been constructed as per the agreed scheme. Details of appropriate operational, maintenance and access requirements for each sustainable drainage component must also be provided, with reference to published guidance, through an appropriate Operation and Maintenance Plan for the lifetime of the development as constructed.

Finally, the LLFA require a condition requiring the submission of an Attenuation Basin and Flow Control Device Phasing.

7.15 **Lancashire County Council Education** comment that, as part of the wider Masterplan area and future development noted in the Masterplan documentation, a 2FE primary school site is sought. They welcome the inclusion of the school site in this application. This is required to ensure both applications currently submitted are

sustainable. Although the pupil places requirements of both applications are low there is the need for the school site to be safeguarded to address future demand.

LCC Education acknowledge that the school site is expected to be provided in kind to be offset against the CIL payments and the contributions expected to be funded through a Section 106 planning obligation. The DfE 'Securing Developer Contributions for Education' guidance states that there should be an initial assumption that both land and funding for construction will be provided for new schools planned within housing developments, with the land provided on a peppercorn basis.

7.16 **Greater Manchester Ecology Unit (GMEU)** have considered the 2021 updated survey reports for:

- Phase 1 Habitat Survey (Appendix 7.2)
- Hedgerows (Appendix 7.3)
- Arboricultural Report (Appendix 7.4)
- Badger (Appendix 7.5)
- Barn Owl (appendix 7.6)
- Bats in trees and buildings (Appendix 7.13)

The validity of the surveys is confirmed, however there are a number of matters of evaluation and impact assessment which GMEU do not concur with and would advise the Local Planning Authority to take into consideration within the wider planning balance.

Additional documents have also been submitted with the current application which GMEU have considered:

- Environmental Statement ([ES] Chapter 7, Ecology)
- Planning Statement
- Biodiversity Net Gain Assessment/BNG metric calculation spreadsheet
- Design & Access Statement/Design Codes

GMEU advise that the surveys of the application sites have consistently identified a number of features of substantive biodiversity value such as Species rich hedgerows and Bat roosts and potential bat roosts in trees

The site also supports Japanese knotweed, Himalayan balsam, and Japanese rose which are all listed on Schedule 9 of the Wildlife & Countryside Act as invasive species (INNS). A condition would therefore be required requiring the submission of Method Statements for the treatment and control of the INNS

Additionally, GMEU advise that features lie outside the application boundaries but are still of relevance to the proposals such as Orchards and Barn owl

In terms of impacts of the proposal and layout, GMEU provide advice on Hedgerow and tree loss; Landscape proposals; and the Protection of Biodiversity

GMEU require conditions be imposed should permission be granted requiring the submission of a Construction Environmental Management Plan (CEMP); the submission of surveys for Badgers; and the submission of a Biodiversity Mitigation and Enhancement Plan

In respect of the updated bat report, GMEU recommend that for each phase at Reserved Matters there is cross reference with the Phase 1 Habitat Plans, the tree retention plan and any trees requiring tree surgery work.

Any updated surveys should identify any changes in the conditions and any additional mitigation or compensation, along with an assessment for a need for a licence.

In terms of Biodiversity Net Gain (BNG), GMEU advise that it is important to recognise that in order to achieve a high quality and biodiversity rich scheme for over 1,000 homes (Application A & B) it would be exemplary to demonstrate the achievement of 10% net gain. The Environment Act 2021 recently received Royal ascent and a 10% uplift will be a requirement when the Act is enacted in statute. Currently the scheme shows just a 2% uplift across the whole scheme for habitats and GMEU question some elements of this, which would reduce the uplift to less than 2%.

In summary and conclusion:

- GMEU recommend that clarity is sought regarding tree and hedgerow removal **prior to the determination** of the application.
- It is suggested that a percentage Biodiversity Net Gain uplift is agreed **prior to determination.**
- Following resolution of these matters a number of conditions are recommended to secure the implementation of appropriate mitigation and compensation for biodiversity impacts.
- GMEU can provide examples as to how conditions/obligations can be framed to secure the quantum of the agreed uplift across the whole of the development as phases come forward.
- The points raised above and the recommended conditions apply to both the outline applications.

7.17 **Natural England** consider that, based on the plans submitted, the proposed development will not have significant adverse impacts on statutorily protected nature conservation sites. Natural England's generic advice on other natural environment issues are also set out in their response as Annex A and is reported more fully in the 'Ecology and Nature Conservation' section of this report. Annex A covers advise on Landscape; Best and most versatile agricultural land and soils; Protected Species; Local sites and priority habitats and species; Ancient woodland, ancient and veteran trees; Environmental gains; Access and Recreation; Rights of Way, Access land, Coastal access and National Trails; Biodiversity

7.18 **Lancashire Wildlife Trust** have no objection in principle to these applications but do have specific objections to some of the processes and assertions which lead them to believe the applications lead to unsound conclusions in respect of the required delivery of nature's recovery. The LWT provide commentary on natural/semi-natural spaces; hedges; breeding birds and bats and this is reported more fully in the 'Ecology and Nature Conservation' section of this report. Essentially, the Wildlife Trust consider that the applicant's consultant ecology has concluded that the development would, at best, only be net neutral for the site's biodiversity resource. The use of Natural England's Biodiversity Metric 3.0 would demonstrate this more quantitatively.

7.19 **Aboriculturist** advises that an Arboricultural Impact Assessment should be submitted at the next planning stages, as should a detailed landscaping plan with designs in keeping with Para 131 of the NPPF July 2021, unless this is inappropriate. TPO 2021 No 2 is in force and Policy G13 of The Local Plan should be adhered to.

7.20 **Penwortham Town Council** object to the applications advising that the local infrastructure around the site, A582 and Leyland Road, are already running at capacity and cannot withstand any further car movements without bringing the whole of Penwortham to a complete stand still. The Town Council feel that the Masterplan simply doesn't take account of the local road networks. The addition of further traffic onto the A582 will simply cause further issues onto what is already an overcrowded and often deadlocked road.

The 40 properties accessing the site via Bee Lane will result in extra burden of traffic on Leyland Road to an already busy roundabout, and the use of the Bee Lane railway bridge, which is only suitable for one vehicle at a time, endangering cyclist and pedestrians using this bridge, is of great concern to the Town Council.

In accordance with Policy C1 of the Local Plan, without the acceptance of the Masterplan the aforementioned applications can only be refused permission.

7.21 **Preston City Council** raise no objections, commenting that the site is identified as the South of Penwortham/North of Farrington Strategic Location in Policy 1 of the Central Lancashire Core Strategy, and is therefore a focal point for growth and investment in the statutory development plan. Policy C1 of the South Ribble Local Plan allocates the Pickering's Farm site for residential-led development, subject to the completion of a Masterplan for the site. The principle of the development proposed would appear to comply with the development plan. As such Preston City Council fully supports the proposals put forward by the applicant and would encourage South Ribble Borough Council to approve the planning application in the interests of delivering the strategic priorities for growth set out within the Central Lancashire Core Strategy. Additionally, Preston City Council consider this development to be a significant part of the Preston, South Ribble and Lancashire City Deal.

7.22 **Lancashire County Council Public Health Wider Determinants Team** recognise and appreciate the consideration that has been given to the impact of the development on human health within Chapter 16 of the Environmental Impact Assessment (EIA). They provide detailed comments on the adoption of the Active Design Principles; the 10 Sport England principles; Green Infrastructure; community allotments; Adaptable homes; Electric Vehicle Charging points; Hot Food Takeaways; Accessible toilets within the Local Centre; Water fountains within the Local Centre and at the two LEAPs. These are reported below in the body of this committee report. Public Health has also requested a number of conditions are imposed to ensure provision of the above.

7.23 **Sport England** objects as the proposals are not compliant with NPPF or the Local Plan. The proposals will generate additional demand for sporting provision, and it is not clear how this would be addressed in the current planning applications. Nor is it clear how the concept of active design would be achieved in the scheme to deliver an active, healthy community.

To overcome the objection, Sport England would require further details that address the following issues:

- Details of any off-site outdoor sport and indoor sport enhancements/new provision to meet the additional demand arising from the development. Sport England's Strategic Planning Tools show this development will generate additional demand equating to just over 2 ½ pitch equivalents, 43 additional visits per week to Artificial Grass Pitches, 178 additional visits per week to sports halls and additional 140 visits per week to swimming pools.
- Incorporate the Ten principles of Active Design into the overall design of the development.

In conclusion, Sport England makes no comment in relation to the principles around housing needs and has focussed on ensuring, if development goes ahead, that sufficient community infrastructure for indoor and outdoor sports facilities are provided to support the increase in population associated with the development and that active design is incorporated to ensure that the proposal delivers a healthy community. The applicants have submitted a fairly detailed revised supporting planning statement, but still do not discuss sport or the impact the new residents will have on the existing sporting facilities/pitches in any detail.

7.24 **United Utilities** advise that, in accordance with the National Planning Policy Framework (NPPF) and the National Planning Practice Guidance (NPPG), the site should be drained on a separate system with foul water draining to the public sewer and surface water draining in the most sustainable way.

Following their review of the submitted Flood Risk Assessment / Drainage Strategy, UU confirm the surface water proposals are acceptable in principle. However, there is very limited information provided in relation to the proposed foul drainage other than there are two points of connection splitting the site. UU would also like to point out that where pumping stations are to be utilised for the site wide foul drainage scheme, they would look to work with the developer to minimise the proliferation of unnecessary pumping stations. On this basis UU request conditions are attached to any subsequent approval in respect of the submission of a Site Wide Foul Water Drainage Strategy; detailed Foul Water Drainage Scheme for each Phase of the development

UU also provide advice on wastewater; management and maintenance of sustainable drainage systems; water supply and property, assets and infrastructure and these are reported in the 'Flood Risk and Drainage' section of this report.

7.25 **Planning Policy** recommend these applications be refused. They advise that the NPPF, Central Lancashire Core Strategy and South Ribble Local Plan are all relevant to these applications. Although the criteria of many of the policies are met by the submission, they have particular concerns in respect of the following:

Central Lancashire Core Strategy - Policy 25: Community Facilities – The masterplan states that Penwortham Town Council will deliver improvements to Penwortham Community Centre. There is little evidence that the developer has, to date, worked "with" others to meet the need for this, or that the developer is planning to encourage or co-ordinate new provision. (Please see comments relating to Penwortham Neighbourhood Development Plan.)

South Ribble Local Plan - Policy A2: Cross Borough Link Road – This policy requires that land be protected from physical development for the delivery of the cross borough link road, a road to be constructed through the Pickering's Farm site and shown on the Policies Map (see Fig 4.0). The route indicated for the spine road shown on the Illustrative Masterplan is less direct than, and does not follow, the indicative route shown on the Policies Map. In addition, it is adjacent to six LAPs and one LEAP (see Fig 7.2). It would obviously not be desirable to have such provision for children adjacent to this road for either safety or air quality/health reasons.

The introduction to policies A2 and A3 at paragraph 4.4 sets out that key new infrastructure includes:

- The Cross-Borough Link Road

4.18 The Cross-Borough Link Road (development link road) is an important route to act as a link road serving new developments and to improve east- west travel across the urban area. Policy A2 – Cross Borough Link Road (development link road) advises at point b) A road to be constructed through the major development site at Pickering's Farm as shown diagrammatically on the Policies Map.

Paragraph 4.20 and 4.21 then states:
"…..*This section of the link road will continue through the major development site of Pickering's Farm. Once both elements of the road are complete, they are to be linked to provide the full cross Borough link road. The link road will improve accessibility in an east-west direction through the borough, increase community access to the range of services*

within the borough and help traffic flow on existing roads. The completion of the link road is to be delivered in the Plan period.
4.21 The section of link road through the major development site at Pickering's Farm will be implemented in accordance with an agreed phasing and infrastructure delivery schedule….."

At paragraph 4.23 it states:
"*The proposed link road also provides an opportunity to improve public transport, to help increase accessibility across this part of the Borough"*

Policy C1: Pickering's Farm states:
"Planning permission will only be granted for the development of the Pickering's Farm site subject to the submission of:
a) an agreed Masterplan for the comprehensive development of the site. The Masterplan must include the wider area of the Pickering's Farm site which includes the safeguarded land which extends to Coote Lane as shown on the Policies Map, and make provision for a range of land uses to include residential, employment and commercial uses, Green Infrastructure and community facilities;
b) a phasing and infrastructure delivery schedule;
c) an agreed programme of implementation in accordance with the Masterplan and agreed design code"

Paragraph 6.11 states:
"*There are currently a number of issues in the area related to traffic congestion, accessibility, public realm and local facilities. To address these issues a key piece of infrastructure that will need to be delivered is the section of the Cross Borough Link Road (development link road) as required in Policy A1, which will link the A582 Penwortham Way with the B5254 Leyland Road and could include a new bridge crossing the West Coast Main Line or improvements to the existing bridge. The upgrading of the A582 South Ribble Western Distributor to improve capacity on the existing A582 between Cuerden and Penwortham Triangle will support this development. The developers will also be required to undertake traffic management measures on Leyland Road and within Tardy Gate District Centre. These could include the provision of bus priority/high occupancy vehicle lanes, limiting the increase in road space for cars. It could also include public realm improvements to Tardy Gate District Centre to increase the accessibility and attractiveness of the centre for residents and shoppers. All schemes within the agreed infrastructure delivery schedule will be implemented through the scheme and such contributions could be offset from any CIL monies required."*

It is clear that the Policy requires a link road to be completed in its entirety within the Plan period. The proposal put forward doesn't comprise a link road across the site, it would fulfil this role for part of its length, but the area across the railway line relies on existing highway and serves only 40 dwellings, which in itself is challenged by the Highway Authority. This leaves the circumstance whereby traffic will emerge onto Leyland Road via the Cawsey, (the completed stretch of the link road to the east) to then only have the option of turning south or north, adding more traffic onto Leyland Road and subsequently into lower Penwortham to the north and Lostock Hall to the south. Part of the Policy justification was to remove traffic from these areas and not to add to it. It also severely limits the accessibility of the site in terms of the new occupants wanting to travel in an easterly direction from the site.

Additionally, although the Masterplan covers the safeguarded land extending to Coote Lane, the land uses in this part of the site are not identified so it is not possible to assess if the Masterplan in its entirety meets the necessary requirements in respect of, for example, public open space.

<u>Penwortham Neighbourhood Development Plan</u>

The developer has informed the Town Council of their proposal in respect of CIL monies/Penwortham Community Centre. However, although the masterplan states that Penwortham TC will deliver an extension and improvements to the Community Centre using the CIL monies received from this development, the Town Council has not entered into any agreement to this and is not aware of any work having been undertaken to assess whether the CIL funds received will be sufficient to enable this work to be carried out.

Supplementary Planning Document - Open Space and Playing Pitch
A separate assessment has been carried out against this SPD excluding the currently Safeguarded area. The safeguarded area cannot be assessed as part of this exercise as insufficient detail is shown in the Masterplan.

In conclusion, given we are not given any certainty in terms of a precise phasing and infrastructure delivery schedule, setting out as to how the balance of the link road will be constructed in terms of by which body; how it will be financed and when, then it certainly appears unlikely that it will be constructed within the Plan period (2026). In this circumstance the development is clearly contrary to the relevant policies stated above.

8. Policy Considerations

8.1 **National Planning Policy Framework 2021 (NPPF) –** sets out the Government's policies and how they should be applied. It advises that planning law requires that applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise. The NPPF is a material consideration in planning decisions and should be read as a whole. It is considered that all chapters of the NPPF are relevant in determining this application

8.2 **National Planning Policy Guidance (NPPG) –** provides guidance on a number of topics. Those considered relevant to this application are Air quality; Climate change; Community Infrastructure Levy; Consultation and pre-decision matters; Determining a planning application; Effective use of land; Environmental Impact Assessment; Flood risk and coastal change; Healthy and safe communities; Housing and economic needs assessment; Housing needs of different groups; Housing for older and disabled people; Housing supply and delivery; Natural environment; Noise; Open space, sports and recreation facilities, public rights of way and local green space; Planning obligations; Strategic environmental assessment and sustainability appraisal; Travel Plans, Transport Assessments and Statements; Tree Preservation Orders; Use of planning conditions; Viability; Waste; Water supply, wastewater and water quality

8.3 **Central Lancashire Core Strategy**

Policy 1: Locating Growth – Focusses growth and investment in the main urban areas of South Ribble and at criteria a) point (iii) identifies 'some greenfield development at the South of Penwortham and North of Farington Strategic Location (the Pickering's Farm site).

Policy 2: Infrastructure – recognises the need to work with infrastructure providers to establish works and/or service requirements that will arise from or be made worse by development proposals and determine what could be met through developer contributions, having taken account of other likely funding sources. If a funding shortfall in needed infrastructure provision is identified, secure, through developer contributions, that new development meets the on and off-site infrastructure requirements necessary to support development and mitigate any impact of that development on existing community interests. Developer contributions will be in the form of actual provision of infrastructure, works or facilities and/or financial contributions. This will ensure that all such development makes an

appropriate and reasonable contribution to the costs of provision after taking account of economic viability considerations.

Policy 3: Travel – recognises that the best approach to planning for travel will involve a series of measures, including (relevant to this proposed development):
(b) Improving pedestrian facilities
(c) Improving opportunities for cycling
(d) Improving public transport
(e) Enabling travellers to change their mode of travel on trips
(g) Managing car use
(h) Improving the road network

Policy 4: Housing Delivery – sets out the annual requirement of 417 dwelling per annum for South Ribble. However, recognising the Core Strategy was adopted in 2012, Central Lancashire will now apply the standard method formula to calculate the aggregate minimum number of homes needed across the area in accordance with the National Planning Policy Framework and National Planning Practice Guidance.

Policy 5: Housing Density – seeks to ensure the densities of development is in keeping with the local areas and have no detrimental impact on the amenity, character, appearance, distinctiveness and environmental quality of an area. It also recognises the need to make efficient use of land.

Policy 6: Housing Quality- aims to improve the quality of housing and at criteria c) aims to facilitate the greater provision of accessible housing and neighbourhoods and use of higher standards of construction.

Policy 7: Affordable and Special Needs Housing seeks to enable sufficient provision of affordable and special housing to meet needs in the following ways:
(a) Subject to such site and development considerations as financial viability and contributions to community services, to achieve a target from market housing schemes of 30% in the urban parts of South Ribble;
(c) Where robustly justified, off-site provision or financial contributions of a broadly equivalent value instead of on-site provision will be acceptable where the site or location is unsustainable for affordable or special housing.
(d) Special needs housing including extra care accommodation will be required to be well located in communities in terms of reducing the need to travel to care and other service provision and a proportion of these properties will be sought to be affordable subject to such site and development considerations as financial viability and contributions to community services.
(e) Special needs housing including extra care accommodation will be required to be well located in communities in terms of reducing the need to travel to care and other service provision and a proportion of these properties will be required to be affordable.
(f) An accompanying Supplementary Planning Document will establish the following:
i. The cost at and below which housing is considered to be affordable.
ii. The proportions of socially rented and shared ownership housing that will typically be sought across Central Lancashire.
iii. Specific spatial variations in the level and types of affordable housing need in particular localities.
iv. How the prevailing market conditions will affect what and how much affordable housing will be sought.

Policy 14: Education – requires developers to contribute towards the provision of school places where their development would result in or worsen a lack of capacity at existing

schools. It also required partnership working with the education authority in any modernisation programme requiring school closure or new construction.

Policy 15: Skills and Economic Inclusion aims to improve Skills and Economic Inclusion through a number of measures:
(a) Working with existing and incoming employers to identify skills shortages.
(b) Liaising with colleges, training agencies and major local employers to develop courses and life-long learning and increase access to training, particularly in local communities that are the most deprived in this respect.
(c) Encouraging knowledge-based businesses and creative industries associated with the University of Central Lancashire to enable graduate retention.

Policy 17: Design of New Buildings – expects the design of new buildings to take account of the character and appearance of the local area, including the following:
(a) siting, layout, massing, scale, design, materials, building to plot ratio and landscaping.
(c) being sympathetic to surrounding land uses and occupiers and avoiding demonstrable harm to the amenities of the local area.
(d) ensuring that the amenities of occupiers of the new development will not be adversely affected by neighbouring uses and vice versa.
(e) linking in with surrounding movement patterns and not prejudicing the development of neighbouring land, including the creation of landlocked sites.
(f) minimising opportunity for crime and maximising natural surveillance.
(g) providing landscaping as an integral part of the development, protecting existing landscape features and natural assets, habitat creation, providing open space, and enhancing the public realm.
(h) including public art in appropriate circumstances.
(j) making provision for the needs of special groups in the community such as the elderly and those with disabilities.
(k) promoting designs that will be adaptable to climate change, and adopting principles of sustainable construction including Sustainable Drainage Systems (SuDS); and
(l) achieving Building for Life rating of 'Silver' or 'Gold' for new residential developments.
(m) ensuring that contaminated land, land stability and other risks associated with coal mining are considered and, where necessary, addressed through appropriate remediation and mitigation measures.

Policy 18: Green Infrastructure – aims to manage and improve environmental resources through a Green Infrastructure approach to protect and enhance the natural environment where it already provides economic, social and environmental benefits and invest in and improve the natural environment, particularly where it contributes to the creation of green wedges and the utilisation of other green open spaces that can provide natural extensions into the countryside.

Policy 21: Landscape Character Areas - New Development will be required to be well integrated into existing settlement patterns, appropriate to the landscape character type and designation within which it is situated and contribute positively to its conservation, enhancement or restoration or the creation of appropriate new features.

Policy 22: Biodiversity and Geodiversity – seeks to conserve, protect and seek opportunities
to enhance and manage the biological and geological assets of the area, through the following measures:
(a) Promoting the conservation and enhancement of biological diversity, having particular regard to the favourable condition, restoration and re-establishment of priority habitats and species populations;

(b) Seeking opportunities to conserve, enhance and expand ecological networks;
(c) Safeguarding geological assets that are of strategic and local importance

Policy 23: Health – aims to integrate public health principles and planning, and help to reduce health inequalities by, among others:
(c) Seeking contributions towards new or enhanced facilities from developers where new housing results in a shortfall or worsening of provision.
(d) Requiring Health Impact Assessment on all strategic development proposals on Strategic Sites and Locations.
(f) Safeguarding and encouraging the role of allotments; garden plots within developments; small scale agriculture and farmers markets in providing access to healthy, affordable locally produced
food options.

Policy 24: Sport and Recreation – seeks to ensure that everyone has the opportunity to access good sport, physical activity and recreation facilities (including children's play) by, among others, devising robust minimum local standards based on quantified needs, accessibility and qualitative factors, through seeking developer contributions (either in the form of new provision or
financial payment in lieu) where new development would result in a shortfall in provision.

Policy 25: Community Facilities – seeks to ensure that local communities have sufficient community facilities provision through a number of measures, including criteria (d) Assessing all development proposals for new housing in terms of their contribution to providing access to a range of core services including education and basic health and care facilities.

Policy 26: Crime and Community Safety – aims to reduced levels of crime and improved community safety through a number of measures, including the inclusion of Secured by Design principles in new developments.

Policy 27: Sustainable Resources and New Developments - requires new dwellings to be built to Code for Sustainable Homes Level 4. However, following the Deregulation Bill 2015 receiving Royal Ascent it is no longer possible to set conditions with requirements above a Code Level 4 equivalent. As Policy 27 is an adopted Policy it is still possible to secure energy efficiency reduction as part of new residential schemes in the interests of minimising the environmental impact of the development.

Policy 29: Water Management – seeks to improve water quality, water management and reduce the risk of flooding through a number of measures, including
(d) Appraising, managing and reducing flood risk in all new developments, avoiding inappropriate development in flood risk areas particularly in Croston, Penwortham, Walton-le-Dale and southwest Preston;
(f) Managing the capacity and timing of development to avoid exceeding sewer infrastructure capacity;
(g) Encouraging the adoption of Sustainable Drainage Systems;
(h) Seeking to maximise the potential of Green Infrastructure to contribute to
flood relief.

Policy 30: Air Quality – aims to improve air quality through delivery of Green Infrastructure initiatives and through taking account of air quality when prioritising measures to reduce road traffic congestion.

8.4 **South Ribble Local Plan**
Policy A1 – Developer Contributions expects new development to contribute to mitigate its impact on infrastructure, services and the environment and to contribute to the requirements

of the community. This may be secured as a planning obligation through a Section 106 agreement and through the Community Infrastructure Levy (CIL)

Policy A2 – Cross Borough Link Road (Development Link Road) protects land from physical development for the delivery of the Cross-Borough Link Road. At criteria b) it specifies that a road is to be constructed through the major development site at Pickering's Farm.

Policy C1 – Pickering's Farm, Penwortham specifies that planning permission will only be granted for the development of the Pickering's Farm site subject to the submission of:

a) an agreed Masterplan for the comprehensive development of the site. The Masterplan must include the wider area of the Pickering's Farm site which includes the safeguarded land to Coote Lane as shown on the Policies Map, and make provision for a range of land uses to include residential, employment and commercial uses, Green Infrastructure and community facilities;
b) a phasing and infrastructure delivery schedule;
c) an agreed programme of implementation in accordance with the Masterplan and agreed design code.

Policy G8 – Green Infrastructure and Networks – Future Provision requires all new developments to provide appropriate landscape enhancements; conservation of important environmental assets, natural resources, biodiversity and geodiversity; provide for the long-term use and management of these areas; and provide access to well-designed cycleways, bridleways and footways (both off and on road), to help link local services and facilities

Policy G10 – Green Infrastructure Provision in Residential Developments is required for all new residential development resulting in a net gain of five dwellings or more to meet the recreational needs of the development, in accordance with the adopted standards Green Infrastructure should normally be provided on-site. Off-site provision will be at the Council's discretion delivered by developer contributions.

Policy G11 – Playing Pitch Provision is required for all new residential development resulting in a net gain of five dwellings or more at a standard provision of 1.14 ha per 1000 population. Contributions will also be sought to fund or improve associated facilities.

Policy G12 – Green Corridors/Green Wedges New development should provide new green corridors to the existing/neighbouring communities and built-up area. Green corridors can be in the form of linear areas of Green Infrastructure, such as footpaths and cycle ways, with the appropriate landscaping features such as trees, hedges and woodland.

Policy G13 – Trees, Woodlands and Development has a presumption in favour of the retention and enhancement of existing tree, woodland and hedgerow cover on a site. Where there is an unavoidable loss of trees on site, replacement trees will be required to be planted on site, where appropriate, at a rate of two new trees for each tree lost. The policy requires that tree survey information is submitted with all planning applications, where trees are present on site. The tree survey information should include protection, mitigation and management measures. Appropriate management measures will also be required to be implemented to protect newly planted and existing trees, woodlands and/or hedgerows.

Policy G16 – Biodiversity and Nature Conservation seeks to protect, conserve and enhance the Boroughs Biological and Ecological Network resources. This policy requires that, where there is reason to suspect that there may be protected habitats/species on or close to a proposed development site, planning applications must be accompanied by a survey undertaken by an appropriate qualified professional. Where the benefits for development in social or economic terms is considered to outweigh the impact on the

natural environment, appropriate and proportionate mitigation measures and/or compensatory habitat creation of an equal or greater area will be required through planning conditions and/or planning obligations.

Policy G17 – Design Criteria for New Development permits new development, including extensions and free-standing structures, provided that, the proposal does not have a detrimental impact on the existing building, neighbouring buildings or on the street scene by virtue of its design, height, scale, orientation, plot density, massing, proximity, use of materials. Furthermore, the development should not cause harm to neighbouring property by leading to undue overlooking, overshadowing or have an overbearing effect; the layout, design and landscaping of all elements of the proposal, including any internal roads, car parking, footpaths and open spaces, are of a high quality and will provide an interesting visual environment which respects the character of the site and local area; the development would not prejudice highway safety, pedestrian safety, the free flow of traffic, and would not reduce the number of on-site parking spaces to below the standards stated in Policy F1, unless there are other material considerations which justify the reduction such as proximity to a public car park. Furthermore, any new roads and/or pavements provided as part of the development should be to an adoptable standard; the proposal would sustain, conserve and where appropriate enhance the significance, appearance, character and setting of a heritage asset itself and the surrounding historic environment. Where a proposed development would lead to substantial harm or loss of significance of a designated heritage asset, planning permission will only be granted where it can be demonstrated that the substantial public benefits of the proposal outweigh the harm or loss to the asset; and the proposal would not have a detrimental impact on landscape features such as mature trees, hedgerows, ponds and watercourses. In some circumstances where, on balance, it is considered acceptable to remove one or more of these features, then mitigation measures to replace the feature/s will be required either on or off-site.

Policy H1 – Protection of Health, Education and Other Community Services and Facilities
Proposals and schemes, for all developments especially major sites for housing should ensure appropriate health, cultural, recreational, sport and education facilities are provided either on site or in the surrounding area through CIL and/or developer contributions.

8.5 **Supplementary Planning Documents (SPDs)** - provide further detail and guidance in relation to policies and proposals within the development plan. Those considered relevant to this application are:

Affordable Housing
Design Guide
Open Space and Playing Pitch
Renewable and Low Carbon Energy
Biodiversity and Nature Conservation
Employment Skills

8.6 **South Ribble Borough Council Air Quality Action Plan 2018** – has the following objectives;

- To improve air quality across the borough of South Ribble.
- To promote awareness of Air Quality and actions that individuals, companies, and organisations can take to reduce their impact on the environment.
- To fulfil the legal responsibilities of South Ribble Borough Council, Lancashire County Council and other partner Organisations.
- To embed Low emission behaviours into our organisation by 2024.

Any development which contributes to increase levels of particulate is by its nature having an adverse impact on the locality and in line with national planning guidance mitigation measures are required to reduce this negative impact. Measures include Electric Vehicle Charging Points; Encourage the reduced reliance on private vehicles and increased use of cycling, public transport and walking to travel for home, work, and leisure; Infrastructure; Alternative travel infrastructure; Travel Choice and Education

Tardy Gate, Lostock Hall AQMA stretches along Leyland Road/Watkin Lane from Fir Trees Road to the north to St James Close taking in the main junctions of Coote Lane, Brownedge Road and Jubilee Road (Croston Road)

8.7 **Penwortham Neighbourhood Development Plan (NDP)**

Policy 2: Requirements for new large-scale residential development
The phased delivery of allocated large-scale residential sites, such that each phase has a distinctive character of its own, will be supported.

Policy 3: Types of Residential property
On development sites where affordable housing is provided, the provision of 10% of units specifically for occupation by older people will be supported. On all residential developments, the provision of 10% of units as single storey properties suitable for use by older people will be supported.

Policy 5: New Sporting Facilities
The provision of new sporting facilities adjacent to Penwortham Community Centre will be supported.

Policy 6: Penwortham Community Centre
The extension of Penwortham Community Centre, to include the provision of a multi-use hall and cafeteria, will be supported.

Policy 7: Penwortham Cycle and Walking Route
The route shown on the plan below will be safeguarded for a dedicated circular route for cyclists and walkers. Proposals for development within the Neighbourhood Area that would prejudice the delivery of the route will be resisted.

Policy 4: Types of Residential Property
In addition to the requirements of Policy 7 of the Central Lancashire Core Strategy, new residential developments in Penwortham, in complying with Policy 3, should provide 10% of the affordable housing, as required by Policy 7 of the Central Lancashire Core Strategy, to be specifically for occupation by older people; and 10% of each development as single storey property suitable for use by older people.

Policy 8: Penwortham Cycle and Walking Route
Penwortham Town Council, working with Lancashire County Council, South Ribble Borough Council, the developers of Pickering's Farm and local groups will protect from any form of development that would prejudice the delivery of, a dedicated circular route for cyclists and walkers.

8.8 **City Deal** is a ten-year infrastructure delivery programme, funded through local and national private and public sector resources. The private sector contributes through Community Infrastructure Levy ("CIL") and other developer contributions.

The City Deal will see investment pumped into South Ribble, resulting in new roads, better public transport, improved public spaces and reduced congestion. Required infrastructure to support population growth, such as new schools and health centres, will also be provided.

A City Deal Infrastructure Delivery Programme and City Deal Investment Fund have been established by the City Deal Partners which together are worth £450m over the lifetime of the Deal.

8.9 **Central Lancashire Highways and Transport Masterplan (CLHTM)** - represents LCC's priorities for future investment in highways and transport across central Lancashire and the start of a delivery programme for the next 13 years which will see new road space built, public transport prioritised along key corridors into Preston and between Leyland and Chorley, and public realm improvements in city, town and local centres. Four major road schemes are presented in the CLHTM, to be delivered in the period to 2026. Two of these roads have direct relevance to the site due to their proximity and connection to the site.

The CLHTM refers to the upgrading of the A582 South Ribble Western Distributor and the B5253 Flensburg Way to improve capacity between Moss Side, Cuerden and Preston City Centre, and support delivery of housing along this corridor and the completion of Penwortham bypass between the Broad Oak roundabout and Howick Cross.

9. Site Allocation/Background

9.1 The Central Lancashire Development Corporation acquired parcels of land within the Pickering's Farm site during the early 1970s. Following the abolition of the Central Lancashire Development Corporation in 1986, the Homes and Communities Agency (HCA) took over. The HCA was an executive non-departmental public body, sponsored by the Department for Communities and Local Government. It was replaced by in January 2018 by Homes England.

9.2 In the previous South Ribble Local Plan 2000, the site was allocated under Policy D8 Safeguarded Land as site b) South of Kingsfold bounded by Penwortham Way, the West Lancashire Railway Line and Coote Lane. Within that plan period the existing uses would, for the most part, remain undisturbed. Planning permission would not be granted for permanent development which would prejudice possible long term, comprehensive development of the land.

9.3 The site is identified as a 'Strategic Location' in Central Lancashire Core Strategy under Policy 1: Locating Growth which advised that; '*some greenfield development is required at the South of Penwortham and North of Farington Strategic Location (Pickering's Farm site).*'

9.4 Chapter 5: Managing and Locating Growth at paragraph 5.28 advises that '*It is imperative that these Sites and Locations are accompanied by the timely provision of infrastructure otherwise these proposals will not be acceptable. The Infrastructure Delivery Schedule identifies the required essential strategic infrastructure – what it comprises and where it applies, when it will be needed as well as the likely providers and funding sources. Where there is a funding shortfall, developers will be expected to directly provide and/or contribute to infrastructure.*
On Strategic Sites and Locations with a high proportion of residential development local services such as small shops, community centre and on-site open/play space will be expected to be provided by the developers. Financial contributions to off-site Green Infrastructure and townscape public realm works will also be sought. Under each Site/Location below major additional infrastructure requirements are set out, not all will

require developer contributions (the Schedule makes this clear) and neither are minor public utility connection/diversion works referred to as these are a standard aspect of developing sites.'

9.5 The Pickering's Farm site it listed as one of those '*site/location below'* as the South of Penwortham and north of Farington Strategic Location.

9.6 The Core Strategy further advises on the delivery of Strategic sites and location at para 5.51, advising '*comprehensive assessment of the transport network improvements is required to deliver the development of the Strategic Locations and the wider development strategy for Central Lancashire and outlying areas. This provides a clear opportunity to identify a strategic and integrated solution through the provision of major additional transport infrastructure to serve these and other locations for growth and investment in and around Central Lancashire, including the Enterprise Zone and major employers nearby, in this plan period and for the longer term. A Highways and Transport Master Plan exercise to be led by Lancashire County Council as highway authority will complement master planning for development through the Core Strategy and will further inform and support the selection and delivery of sites through the Site Allocations DPDs for Preston and South Ribble.'*

9.7 The Inspectors Report into the Core Strategy advised: '*It is significant that there is no objection in principle from the Highways Agency and that the County Council as Highways Authority continues to support the Local Plan's proposals,* ***with the important proviso that delivery of the scale and distribution of development now proposed will necessitate major additions to existing transport infrastructure to serve these 2 Strategic Locations****.*

9.8 The County Council adds that it would seem sensible to acknowledge the Highways and Transport Master Plan as a prerequisite to informing the production of detailed proposals for additional supporting infrastructure to come forward at the Strategic Locations, to be set out in the Site Allocations DPDs.'

9.9 Lancashire County Council, as Highway Authority, produced 'The Central Lancashire Highways and Transport Masterplan' (The CLHTM) in March 2013 which advises: '*The Penwortham ~ Lostock Hall ~ Farington ~ Moss Side area can expect to see the development of up to 2,700 new homes at three major development sites. These developments will connect to the road network via the A582 and B5253 which are very busy single carriageway roads with significant congestion.'*

9.10 The CLHTM concludes: '*that significant additions to existing highway infrastructure will be needed to support the development aspirations of Central Lancashire.'*

9.11 In the current South Ribble Local Plan, adopted in July 2015, the site is allocated for residential-led development under Policy C1. The Inspector's Report following the Examination into the Site Allocations and Development Management Policies Development Plan Documents (now the South Ribble Local Plan) advised the following:
"Pickering's Farm
64. The Plan identifies 79 ha of land at Penwortham and North of Farington, known as Pickering's Farm, for residential led development. This is an urban extension which provides for up to 1350 dwellings within the Plan period whilst allocating Safeguarded Land to the south to provide for development needs beyond the Plan period. The allocation is in accordance with policy 1 of the CS. The site has been considered against reasonable alternatives and is supported adequately by the SHLAA and the SA.
65. The Plan indicates that ***significant infrastructure improvements will be required to support the development of the site. This would include the Cross Borough Link Road****, other traffic management measures, improvement to the Tardy Gate District Centre,*

community facilities including nursery and primary education provision, a local centre and health care provision and green infrastructure. Consideration will also need to be given to foul and surface water treatment. These will be delivered through a combination of CIL and S106 Agreements and will be included in the agreed masterplan, phasing and infrastructure delivery schedules and agreed programmes of implementation. Landowners, including the Homes and Communities Agency (HCA) as a major landowner, and developers have come together to form a consortium to take forward the development of the site and a development statement has been prepared. ***The evidence demonstrates that the development would be viable having regard to the infrastructure requirements*** *and that there are no fundamental obstacles to the site's delivery.*
66. Overall, the approach of the Plan to the Pickering's Farm site is justified by the evidence provided."

10. Material Considerations

10.1 The key matters that are considered in this section of the report are the Masterplan; the Cross Borough Link Road; Access; Transport and Mobility; Public Rights of Way; Infrastructure provision; housing; Residential Amenity; Character and Appearance; Ecology and Nature conservation; Trees and Hedgerows; Flood Risk and drainage; Climate Change; Air Quality; Crime and Disorder; Archaeology/Heritage; Waste Management with narrative on each matters.

10.2 **Masterplan**
10.2.1 Policy C1 specifies that planning permission will only be granted for the development of the Pickering's Farm site subject to the submission of:
a) an agreed Masterplan for the comprehensive development of the site. The Masterplan must include the wider area of the Pickering's Farm site which includes the safeguarded land to Coote Lane, and make provision for a range of land uses to include residential, employment and commercial uses, Green Infrastructure and community facilities;
b) a phasing and infrastructure delivery schedule;
c) an agreed programme of implementation in accordance with the Masterplan and agreed design code.

10.2.2 As the Site History section above outlines, a Masterplan together with a Phasing and Infrastructure Delivery Schedule (Design Code) were submitted in January 2020 and duly considered. However, the Masterplan was refused by Committee Members due to a number of concerns. The applicants were advised of the reasons which are set out below:

- Increase amount of Green infrastructure and Public Open Space which respects the rural character of the area and protects the high quality elements such as the Orchard.
- Firm commitment for the retention of Orchard site
- Green Infrastructure under the Pylons not to be counted towards Policy compliant POS as this does not provide a high quality, usable environment
- Firm commitment to retain all existing hedgerows and trees of A and B category
- Ecology surveys of whole of Masterplan site, regardless of ownership and including Safeguarded Land
- Further consideration of proposed to discharge surface water to Mill Brook
- Air Quality Assessment and robust mitigation and management measures
- Firm commitment for the deliverability of key infrastructure and robust wording in the infrastructure delivery schedule
- Bee Lane and the railway bridge are part of proposed 'exercise route' in Penwortham Town Plan, consideration of how proposals will impact on this
- Commitment to complete the village centre in first phase of development
- Include proposals for a Train station and associated car parking
- Further details of how 'Green Lanes' will work

- Further details of bus/cycle/pedestrian link to Kingsfold will work in practice. Highway safety impact on car park to community centre
- Older persons provision to include a proportion of single storey bungalows as per the requirements of Policy in the Penwortham Town Neighbourhood Plan
- Masterplan must be fully compliant with Penwortham Neighbourhood plan policies 4, 6, 8
- Restrict dwellings to 1 and/or 2-storey only adjacent to existing properties
- Removal of reference to 4-storey
- Details of the impacts on Chain House Lane and the wider area to the south – Croston Road, Church Lane etc
- Communities are not created, they evolve, Masterplan needs to demonstrate how this new community will evolve
- Measure to mitigate the impact on residents during site preparation and construction

10.2.3 Additionally, there were a number of matters raised by various consultees in their responses which they required to be addressed. The Supporting Planning Statement at Pages 10 to 17 responds to these points and indicates where changes have been made.

10.2.4 With these current applications, the Masterplan has been submitted as a supporting document rather than a stand-alone document. The reasoning is set out in the Supporting Planning Statement. It advises that the revised Masterplan provides a clear framework to guide the future development of the Strategic Site, setting the visions, range of uses, access and movement strategy and associated infrastructure.

10.2.5 The revised Masterplan comprises of 2 documents, the Masterplan and the Design Code. The purpose of the Masterplan is to demonstrate that, in addition to delivering a substantial part of the development plan allocation, the development of the sites subject to the two planning applications will not prejudice the remainder of the allocation or the safeguarded land from coming forward in a comprehensive manner in the future. The Masterplan sets out a series of land uses, development parameters, a movement strategy and design principles across the allocated site which are aimed to ensure that all uses covered by the Local Plan allocation are accommodated.

10.2.6 The Plannng Policy Team consider that, although the Masterplan covers the safeguarded land extending to Coote Lane, the land uses in this part of the site are not identified so it is not possible to assess if the Masterplan in its entirety meets the necessary requirements in respect of, for example, public open space.

10.2.7 In response the applicants advise this was deliberate and the decision was made to show how the safeguarded land can be accessed and to identify broad areas which may be suitable for future development based on the known constraints of the land, but to omit any specific land uses for this part of the Masterplan area and it is consistent with Policy G3 of the South Ribble Local Plan ('SRLP'), which states:
"Within the borough, land remains safeguarded and not designated for any specific purpose within the Plan period at the following locations:
• S2 Southern area of the Major Development Site at Pickering's Farm, Penwortham.
Existing uses will for the most part remain undisturbed during the Plan period or until the Plan is reviewed.

10.2.8 Given the wording of Policy G3, the applicants consider it would not be appropriate or possible to: "*propose any land uses or provide further detail for the safeguarded land. This is also consistent with the National Planning Policy Framework which makes clear that safeguarded land is not allocated for development at the present time, and planning permission for it should only be granted following an update to the Local Plan.*
Until the future use(s) for the safeguarded land can be clearly identified, most likely through a Local Plan review at some point in the future which establishes a need for its release, it

would be misleading and confusing for the local community to seek to promote any specific form of development within this area. The approach adopted in the submitted Masterplan is consistent with local and national policy and demonstrates that the future development of the safeguarded land is not prejudiced, indeed it is facilitated by the application proposals."

10.2.9 LCC Highways consider a Masterplan should give clear detail that can be scrutinised by all on matters such as scale, form, location deliverability, satisfying policy, detail on highway (satisfying design criteria) within and their suitability including CBLR as well as connectivity, how existing properties will be connected into the development and how they access the wider network. The TA refers to active travel connections *'which will be retained and improved (where required and within the application sites)*. It is considered that, as there is no agreed Masterplan in place, the proposals within the two applications are, on the face of it, contrary to Policy C1.

10.2.10 The Council sought Counsel advice on whether it was appropriate to deal with the applications without an agreed Masterplan. The advice was that although the policy imposes a requirement in order for planning permission to be granted, there may be circumstances in which material considerations support the grant of consent notwithstanding a failure to comply with that requirement. The issue falls to be determined as part of the consideration of the planning applications. As such these applications are duly considered in terms of all relevant material planning considerations and an assessment of each of the relevant matters is set out in this report.

10.3 **Cross Borough Link Road**

10.3.1 The 'Background' section of this report outlines the requirements for the CBLR at a higher level. At a more local level, the Adopted Local Plan at Paragraph 4.4 sets out that vital new infrastructure includes The Cross-Borough Link Road. At paragraph 4.18, the Local Plan advises:

"The Cross-Borough Link Road (development link road) is an important route to act as a link road serving new developments and to improve east- west travel across the urban area. Policy A2 – Cross Borough Link Road (development link road) advises at point b)
A road to be constructed through the major development site at Pickering's Farm as shown diagrammatically on the Policies Map."

10.3.2 Paragraphs 4.20, 4.21 and 4.23 then states: "*this section of the link road will continue through the major development site of Pickerings Farm. Once both elements of the road are complete, they are to be linked to provide the full cross Borough link road. The link road will improve accessibility in an east-west direction through the borough, increase community access to the range of services within the borough and help traffic flow on existing roads. The completion of the link road is to be delivered in the Plan period.*
4.21 The section of link road through the major development site at Pickerings Farm will be implemented in accordance with an agreed phasing and infrastructure delivery schedule.
4.23 The proposed link road also provides an opportunity to improve public transport, to help increase accessibility across this part of the Borough"

10.3.3 Policy C1: Pickering's Farm states:
Planning permission will only be granted for the development of the Pickering's Farm site subject to the submission of:
a) an agreed Masterplan for the comprehensive development of the site. The Masterplan must include the wider area of the Pickering's Farm site which includes the safeguarded land which extends to Coote Lane as shown on the Policies Map, and make provision for a range of land uses to include residential, employment and commercial uses, Green Infrastructure and community facilities;
b) a phasing and infrastructure delivery schedule;

c) an agreed programme of implementation in accordance with the Masterplan and agreed design code

10.3.4 Criteria b) of Policy C1 requires a phasing and infrastructure delivery schedule to be submitted. At 6.11 of the Policy Justification, it specifies that: *"There are currently a number of issues in the area related to traffic congestion, accessibility, public realm and local facilities. To address these issues a key piece of infrastructure that will need to be delivered is the section of the Cross Borough Link Road (development link road) as required in Policy A1, which will link the A582 Penwortham Way with the B5254 Leyland Road and could include a new bridge crossing the West Coast Main Line or improvements to the existing bridge. The upgrading of the A582 South Ribble Western Distributor to improve capacity on the existing A582 between Cuerden and Penwortham Triangle will support this development. The developers will also be required to undertake traffic management measures on Leyland Road and within Tardy Gate District Centre. These could include the provision of bus priority/high occupancy vehicle lanes, limiting the increase in road space for cars. It could also include public realm improvements to Tardy Gate District Centre to increase the accessibility and attractiveness of the centre for residents and shoppers. All schemes within the agreed infrastructure delivery schedule will be implemented through the scheme and such contributions could be offset from any CIL monies required."*

10.3.5 Policy A1 expects new development to contribute to mitigating its impact on infrastructure, services and the environment and to contribute to the requirements of the community.

10.3.6 Additionally, Policy A2 protects land from physical development for the delivery of the Cross Borough Link Road which comprises of a road to be constructed from Carrwood Road to The Cawsey (now complete) and a **road to be constructed through the major development site at Pickering's Farm.** This is seen as an important route to act as a link road serving new developments and to improve east west travel across the urban area.

10.3.7 The Illustrative Masterplan at Section 9.0 of the submitted Masterplan document demonstrates visually how a link road could be provided through the site and refers to it as the Spine Road. The text within Section 5: Access and Movement of the Masterplan document refers to: "*In line with Policy A1, a route will be protected by designing the Central Spine road to accommodate such a route if required in the future."* (NB: The refence to Policy A1 should be to Policy A2)

10.3.8 Clearly, this is not a **firm commitment** to delivering the section of the Cross Borough Link Road as specified in Policy C1, seen as a "***key piece of infrastructure that will need to be delivered*** but merely reiterates the requirement of Policy A2 to protect the land.

10.3.9 The Supporting Planning Statement advises: *"The Developers propose to construct a Spine Road through their land which will be built on the broad indicative alignment of the CBLR (as shown on the Local Plan Proposals Map) and to a specification which would enable it to form part of the CBLR should the remainder of the road be delivered on third party land within the allocation site (and beyond its boundaries) in the future. The specification shown on the Masterplan is as per the already completed sections of the CBLR defined in Policy A2 being the road "constructed from Carrwood Road to The Cawsey". A possible alignment of the Spine Road is shown on the Illustrative Layout for Applications A and B (Appendix X). The construction of this Spine Road will be at the Developers' expense and to a "CBLR specification" which can be amalgamated into the full CBLR if the Council wish to deliver it in the future. The Developers' contribution facilitates the proposed housing areas and does not prejudice the CBLRs future delivery. This approach is fully consistent with the requirements of policy A2."*

10.3.10 County Highways have confirmed in their initial response that the Masterplan as presented does not demonstrate the delivery of the infrastructure necessary to support the scale of development proposed. Any approach taken forward must be fully in line with South Ribble Council's Planning policy as set out in detail in their statutory correspondence on the previous application on this site. For clarity, a summary of their previously commented follows: ***"****LCC Highways have reviewed the submitted Masterplan plans and associated documentation. Our view is that further information is necessary to demonstrate the Masterplan can be considered sound by the highway authority, such that it can and will deliver necessary and appropriate infrastructure and sustainable links with connectivity to the wider network at the time required to support comprehensive development of this major site for development, while satisfying relevant policy…….. If a planning decision is to be made at this stage our recommendation must be one of* ***refusal*** *with the reason being lack of necessary information and not satisfying relevant policy."*

10.3.11 In their response to these current applications, LCC Highways again confirm that the Principles and Mobility Strategy as presented does not demonstrate the delivery of the infrastructure, including the CBLR, necessary to support the scale of development proposed.

10.3.12 The Planning Policy Team reiterate that Policy A2 requires that land be protected from physical development for the delivery of the cross borough link road, a road to be constructed through the Pickering's Farm site and shown on the Policies Map. Their view is that the route indicated for the spine road shown on the Illustrative Masterplan is less direct than, and does not follow, the indicative route shown on the Policies Map. In addition, it is adjacent to six LAPs and a LEAP and it would obviously not be desirable to have such provision for children adjacent to this road for either safety or air quality/health reasons.

10.3.13 However, the degree of deviation from the indicative route is not considered to be a key issue. The route is largely that of the previous Masterplan and planning application 07/2020/00014/FUL and LCC Highways have never raised concerns with the route. In respect of the proximity to LAPs and LEAPs, their locations could be addressed at RM stage and therefore is not considered to be constraint on the development.

10.3.14 In conclusion, it is clear that Policy C1 requires a link road to be completed in its entirety within the Plan period. The proposal put forward does not comprise a link road across the site, it would fulfil this role for part of its length, but the area across the railway line relies on existing highway and serves only 40 dwellings, which in itself is challenged by the Highway Authority. This leaves the circumstance whereby traffic will emerge onto Leyland Road via the Cawsey, (the completed stretch of the link road to the east) to then only have the option of turning south or north, adding more traffic onto Leyland Road and subsequently into lower Penwortham to the north and Lostock Hall to the south. Part of the Policy justification was to remove traffic from these areas and not to add to it. It also severely limits the accessibility of the site in terms of the new occupants wanting to travel in an easterly direction from the site.

10.3.15 Given we are not given any certainty in terms of a precise phasing and infrastructure delivery schedule, setting out as to how the balance of the link road will be constructed in terms of by which body; how it will be financed and when, then it certainly appears unlikely that it will be constructed within the Plan period (2026). In this circumstance the development is clearly contrary to the relevant policies stated above.

10.4 **Access**

10.4.1 The proposed main access to the site is off the A582 Penwortham Way as demonstrated on the submitted 'Proposed Site Access Arrangement (Single Carriageway Approach)' Plan Ref: VN211918-D103. This is to serve the majority of the development and will be a traffic signal controlled junction. A second access is from Bee Lane and

demonstrated on the 'Proposed Site Access Arrangement (Bee Lane)' Plan Ref: VN211918-D105. A limited number of dwellings will access via Bee Lane (circa 40 homes) with no vehicular link onto the Spine Road or Penwortham Way. Both accesses form part of Application A with access for the Application B site being from the main development proposed under Application A.

10.4.2 LCC Highways advise that: '*the primary vehicular access is proposed at a new signalised junction off Penwortham Way providing access to an internal residential estate road to the majority of residential dwellings (i.e. 1,060 dwellings with no detail on estate road parameters), the school and the local centre. It is stated that two lanes are to be provided on the site access junction arm to separate right and left turning movements.'* **This is supported by LCC Highways.**
'In addition, two ahead lanes are to be provided on the northern and southern arms of Penwortham Way, plus a dedicated left and right turning lane to facilitate access into the site whilst it will minimise the potential impacts on general north-south movements along the A582 corridor.' **This is also supported by LCC Highways.**

10.4.3 A new priority junction to be provided onto the exiting Bee Lane for 40 dwellings and to support other existing motorised movements. LCC Highways are very concerned as Bee Lane remains as is and it is proposed that this constrained pinch point is considered suitable for 2 way movement with the residual width available for a 'Pedestrian Clear Zone', **LCC Highways disagree with this suggestion**.
'Notwithstanding the additional vehicles from the 40 units and the increase in sustainable users such as pedestrians, cyclists, parents/carers with prams, mobility impaired, ***this proposal of no change is not acceptable to the highway authority.*** *In addition, the existing roundabout does not include suitable sustainable provision to satisfy future demand nor does the junction support that required for additional vehicles when design standards are considered.'* **This is a concern to the highway authority.**

10.4.4 The TA indicates that Flag Lane will only provide motorised access to existing properties which will be encompassed within the new community. LCC Highways note that no indicative layout is provided in the TA. However, it states *'that no private vehicle connectivity between these accesses, without prejudice to through connectivity being provided in the future should the Authorities pursue the Cross Borough Link Road (CBLR) across the site'.*

10.4.5 LCC Highways advise that: '*The application does not provide a layout or strategy that provides all accesses i.e. that which provides connectivity within or into the wider environment. The TA does refer to an existing network of lanes which provides local access to properties within the site and form part of an active travel network which includes PRoW.* ***This lack of information or detail is a major concern as it is not possible to understand the impacts or acceptability on existing residents.'***

10.4.6 In terms of the accesses in general, National Highways recommend that local junction modelling is carried out for the proposed site accesses using industry standard software such as LinSig/Junctions 9 software where appropriate.

10.4.7 Network Rail have also commented on the suitability of Bee Lane bridge, highlighting a number of points, as follows:
'1. The intention not to delineate highway and footway traffic by means of a kerb is a safety concern on the Bee Lane bridge. Pedestrians are likely to be unaware of the associated increased risk to themselves and if in hours of darkness or if distracted, the probability of an accident occurring whereby the drivers takes collision avoidance action and hits the bridge structure, could be greater.

2. The notable increase proposed in mixed use traffic will increase the risk of accidents/ incidents occurring on the Bee Lane bridge. In the event that a vehicle strikes the structure it could be necessary for Network Rail to close the bridge/ highway while it undertakes safety inspections &/ or repairs. The duration of such a closure would be dependent on the severity and position of the impact. While the probability of an accident occurring on the bridge might be considered low, the subsequent disruption to all users could be significant.
3. As part mitigation of the aforementioned risks the installation of vehicle incursion and traffic calming measures should proposed on the bridge approaches.
4. Use of the Bee Lane and Flag Lane bridges by construction traffic associated with the project proposals should not be permitted as the risk of traffic conflicts/ accidents would increase. Should any exceptions be proposed these should be pre-agreed with NR and be required to avoid peak travel and school drop-off/collection times
5. The assumed number of 'active travel' users currently appears to be limited to 40 dwellings for Bee Lane bridge. An estimated number should be supplied which reflects the assumed number of 'active travel' users once the 'full' development is completed and occupied. Assumed no vehicular access to the new development from Flag Lane bridge.
6. The influx of residents occupying properties adjacent to the operational railway, combined with the increased number of pedestrians using Bee Lane overbridge, will increase the risk of trespass and vandalism on the operational railway. Current suitability of all existing adjacent Network Rail boundary fences must therefore be assessed and upgraded as necessary, at the project's cost.
7. The proposed Cross Borough Link Road provision to include the provision of a new bridge over the West Coast Main line in due course as the Bee Lane bridge is not suitable for the proposed future increase in traffic.
8. Bee Lane bridge and Flag Lane bridge are owned and maintained by Network Rail and no works are to be undertaken to the bridge without consultation with and permission of unless instructed by Network Rail.'

10.4.8 Clearly, LCC Highways, Network Rail and to some degree National Highway, have a number of concerns in respect of the Bee Lane access and consider there is a lack of submitted information to enable them to fully understand the impacts on the Flag Lane access and how it impacts on existing residents.

10.4.9 Additionally, it is considered that the proposals fails to address the requirements of policies A2 and C1 in that it fails to deliver the Cross Borough Link Road; provides a lack of modelling junction capacity; lack of information on the phasing and infrastructure delivery schedule or programme of implementation

10.5 **Transport and Mobility**
10.5.1 Chapter 12 of the submitted Environmental Statement considers the effects of the development on transport and mobility. In particular, it considers the anticipated effects of the development on the operation of both the local and strategic highway networks in the vicinity and provides an assessment of the potential transport environmental effects associated with construction and operation.

10.5.2 Baseline transport conditions for the local highway network in the vicinity have been considered along with future baseline conditions considering future traffic growth and committed developments. It describes the methods used to assess the baseline conditions currently existing in the vicinity, the potential direct and indirect effects, the mitigation measures required to enable local living, active travel and shared travel, and the identification of the residual effects as a result of mitigation.

10.5.3 Further information in respect of transport and mobility is provided within a Transport Assessment that informs Chapter 12 together with a Framework Travel Plan which provides details on mitigation measures relating to the further promotion of active and sustainable

modes, initiatives looking to facilitate behavioural change and methods for highlighting the choices available for travel, all combining to ultimately reduce the need to travel by private car.

10.5.4 These documents have been duly considered by Lancashire County Council Highways; Highways England and WSP, a private consultancy providing this Council with advice on Highway matters in a 'Critical Friend' capacity. Their views are outlined below:

10.5.5 National Highways - have highlighted a number of issues that they require be addressed in order for them to be satisfied that the proposed development will not have an unacceptable impact on the Strategic Road Network. Specifically, they request that the submitted supporting information is updated to include:

- the M6/M65 interchange and the M6/A6/Church Road junction in the five-year injury analysis
- local junction modelling using industry standard software
- comparison with the two-way vehicular trips for this development in both the AM and PM peaks to the approved development opposite (planning ref. 07/2020/0052/FUL)
- Recalibration of the base traffic model data with the Transport Assessment as the current submission uses data from the 21 April 2021 when the Covid-19 "work at home if possible" order was in place or justification why the use of this dataset is appropriate

10.5.6 National Highways have, amongst other things, also asked the following to be provided by the applicant:

- Details of the consultations carried out with local bus operators in regard to the public transport strategy for the site
- A high-level site plan
- Details on the phasing and reasoning on the late stage the school is opening
- Information to substantiate the assumed equal split of trips made across school sites
- Information to justify the level of forecast non-car users expected to use the site
- The matrix and models assignment to allow comment on the suitability of the applied routing
- Information about the TomTom data used to validate the model
- Confirmation that the occupied dwelling of both the Croston Road and Test Track strategic housing have been accounted for in the process

10.5.7 A point is also made by National Highways of the need for the applicant to consult with the Council and Lancashire County Council with regards to the proposal active travel route improvements and also how they may be sustained over the longer term to ensure that they are appropriate for the development.

10.5.8 Whilst elements of the trip generation and distribution assessment are accepted by National Highways the applied 5% trip reduction for an "internalisation factor" for trips occurring within the site and people working from home is disputed. Further information would be required to substantiate such a reduction.

10.5.9 Lancashire County Council Highways – have advised that, based on the submitted documents, there are several matters they are unable to conclude due to lack of acceptable *information. In addition, there are other matters which, as presented, are not supported.*

10.5.10. LCC Highways' initial review and supporting correspondence dated 28th September highlighted a number of concerns with the approach presented being. These comments are intended to complement those provided by National Highways.

'Masterplan – LCC Highways consider the masterplan Principles and Mobility Strategy as presented does not demonstrate the delivery of the infrastructure necessary to support the scale of development proposed.

*Transport Assessment – Unfortunately with **this** application unlike the previous, no detailed pre-application discussions have taken place in advance of submission, as such LCC Highways dispute the wording used in para 1.17-19 for this proposal. The approach used in the TA is **not agreed** at this stage, as that presented is not an assessment of impact that can be scrutinised by all.*

'Vision and Validate' – the approach as presented is aspirational. While LCC Highways support proposals that will deliver significant modal shift, these must be realistic and deliver the necessary access to all modes of transport that will be required to support development proposals. Any vision presented must be evidence based.

10.5.11. In more detail, LCC Highways make comment on the TA in terms of public transport; parking; cycling and walking; education impacts.

10.5.12. Public Transport - In terms of Public Transport, LCC Highways advise: '*The TA indicates that the applicant has had early direct discussions with a commercial operator. An operator is willing to provide a new 30min service with point on access and egress being off the new access onto Penwortham Way. The new service will have a bus turnround somewhere within the site and operate a service between the site and Preston City Centre (including Preston Railway Station). The TA goes on and suggest **'flexibility for the route to be extended providing an internal loop around the wider masterplan area in due course'**.*

10.5.13. LCC Highways have concerns with what is being proposed, advising:
'• 30min service not being suitable to satisfy customers' needs (e.g. to places of employment to appointments etc, satisfy demand in all directions/destinations.
• No detail on the duration of the service (Mon-Friday, Evening Saturday or Sunday)
• Don't know about walk distances from all dwellings at stages of development (lack of masterplan)
• No detail on the internal provisions that ensures patrons are comfortable, secure, with of ease access
• No evidence is presented that this that it can be sustained indefinitely without burden to existing services or to the public purse (funding risk post pump priming).
• Incomplete approach to PT, and isolated.
*In conclusion the proposed does not ensure PT is attractive alternative to the private car and no evidence is presented that PT usage will be greater than that locally available. It may be the case PT usage will be lower. **This is a significant concern.'***

10.5.14. However, LCC Highways '*do acknowledge that the No 3 service (Preston) that circulates Kingsfold has a frequency of circa every 10mins (as indicated in TA Table 2.3) and the No 111 service that traverses Leyland Road has a frequency of circa 8mins. These frequencies for the journey to work within Census areas 006A-D which incorporates the site and Kingsfold is only between 4-8% and use of the private car is between 70-77%*. Based on this simple evidence in isolation the provision offered is unlikely to have a big impact on this proposal. New residents will be able to use this existing provision (No 3 and No 111) however consideration must also be given to its attractiveness when the site is circa 800m x 1200m in size. LCC Highways question what consideration has been given to existing capacity on these services during peaks.'*

10.5.15. Parking - LCC Highways advise that: 'T*he TA makes reference from a South Ribble adopted parking standard perspective that the site is located in an Area C (other areas) with greater level of parking for non-dwelling related uses. As no further detail has been*

presented it appears that maximums are being progressed which is not in accordance with their strategy. This promotes access and use to the private car for all land uses including residential dwellings.
If lower standards are to be adopted including for residential to be more in accordance with the strategy, i cannot see based on the limited information presented how parking could be controlled and not have impacts on the surrounding highway network.'

10.5.16. Cycling and walking - In terms of cycling and walking, LCC Highways advise that:
'*No details provided to make comment on or how this provision suitable and seamlessly integrates into the local and wider environment. The only detail provided relates to the eastern access junction and Bee Lane bridge, which is not supported. I must also highlight that there is no sustainable proposed at the primary access or parallel to the A582.* ***The lack of detail and agreement is a concern.***

The TA includes a table of amenities, and distances. There is much greater level of amenity available in Tardy gate not included which will be attractive for this development site.

It is not clear how distances are determined. As the site is large i would expect a maximum distance and a minimum distance (walk and not crow fly) for each parcel of development (1060units & 40units) to each amenity. This is required to provide a more realistic assessment (and to be based on an indicative masterplan). A single distance to represent the whole development is misleading irrespective of how it is determined. ***This is a concern.***

Whilst Census data has been used which has a level of sense indicating the existing situation (when collected), I question where the new employment will be locally that can be walked or cycled to, as per this approach[3]. Some parameters are not ideal for growthing up.

There is no thought of existing provision that is necessary beyond the site to promote sustainable use whether on existing roads, PRoW or within local existing built environments or hubs such as Tardy Gate, Lostock Hall or the Railway station.

The TA makes reference to a WYG report titled 'How Far Do People Walk and cycle'. The report does make use of data, however as expected if averages are considered rather than 85%ile walk distances are much lower, the report also indicates at the 85%ile distances for men are generally 400m longer. It is important that data used is not misleading, the report also provides commentary on mobility impaired. I don't dispute the use of information from the report however ***consideration to the average person is more appropriate****. The report can the used in parallel with the historic CIHT distances.*

Notes:
1 the WYG report was presented at the PTRC meeting.
2 Whilst I strongly suggest the use of averages, i believe there are errors within paragraph 2.9 of the TA and the distances highlighted.
3 Local attributes but must be expandable (with certainty) to cater for future demands (Census data is historic- is not always suitable for growthing, further though/information is necessary)

Summary (of the above) and Additional Comments
Sustainable development is promoted and supported; this site is no different (as are those within the local plan which have been assessed against the ability to be made sustainable). This site it is well positioned on the periphery of the built environment and as with the pre app discussions with the previous application could be made acceptable, if the applicant worked closely with all relevant organisations achieving buy in.

However, I am not satisfied with the discounting as proposed against the private car.*

As a suggestion it would be more appropriate if these formed part of the travel plan targets. A developer can offer opportunities to support modal shift but cannot guarantee a change in travel habits.

As we all know modal usage is based on a number of factors including time of travel, time of year, weather conditions, mobility of user, provision provided, willingness to use it, its availability, its suitability for each trip, perception of safety on routes, distances walked/cycled, historic influences i.e. what currently happens in that area. The approach proposed whilst complex doesn't provide certainty and the consequences will likely result in greater impact and issues on the surrounding network in this case the A582.

Most concentrated local provision is located in Tardy Gate with short direct access only possible for a limited few with the most having to travel by private car (on the assumption that they do not walk, cycle etc). This will result in additional use of Coote Lane, (over and above that reported on in the model, which is limiting) not including additional requirements within Tardy Gate, Lostock Hall say for parking or those who choose to be sustainable for secure convenient cycle storage etc. ***As presented, this is a concern.***

This excludes a development proposal that is not fully permeable or accessible in all directions by all users into the build environment. The development and access strategy requires those who need to access the built environment whether to the North, East and South to use the A582. No consideration has been given to those who are a less confident driver. For those who are mobility impaired or have limitations on time etc and wish to make a short journey say to Kingsfold Library or Post office for example need to travel a much longer distance when compared to simple limited access strategy that can cater for them (as suggested in pre app for the previous application). ***This is an access strategy concern, potentially isolating certain members of the development)***

Education impacts
Whilst the proposal includes a 2form school within the site, at this stage LCC Highways are informed it is based on current Education forecasting and its provision may only be required at the latter stages of this development. Therefore, it should not be included as an internal trip as there is limited certainty.

Analysis
As highlighted above, LCC Highways have concerns with the approach and that it underestimates the level of generation from the private car. For example (excluding my comment that i consider the trip rates are slightly lower than what would be expected.
*Note: *Whilst i appreciate and support impact per mode, in support i am looking into your trip rates by private car. However, this will take time, before i can conclude this.*
With regard to your factoring not withstanding my concerns with car trip rates, if the original trip rates and were factored to represent the full development then compared to that produced produces the following:

	Use of Factored trip rates for 1100 units (Cars)		Use of unfactored trip rates for 1100units (cars)		Difference (cars)	
	Arrive	Depart	Arrive	Depart	Arrive	Depart
8:00-9:00	107	392	146	405	40	13
16:00-17:00	246	126	282	168	36	90
17:00-18:00	292	126	367	166	75	51

Note: The approach used doesn't fully consider other purposes such as servicing and deliveries.

Base data

The collection and use of 2021 data is not acceptable to LCC, traffic levels are much lower than the historic, Consultants who undertake TA's in Lancashire are aware of this position.

I would also expect queues length be used (but as above the data to be typical). As highlighted above a number of junctions do suffer from high levels of queuing. This needs to be replicated. ***Data used in this assessment is not accepted and is a significant concern.***

Modelling

The use of a microsimulation in isolation and as presented is not acceptable to LCC it does not identify the true impacts as highlighted within the TA. Microsimulation models can be used to support a traditional approach of modelling individual junctions using traditional proprietary software. All base models need to be validated first to fully represent the junction/area (including queuing). ***The modelling approach unacceptable and a significant concern.***

It is not clear what highway changes have been applied to the network of interest, when compared to the current layout.

Microsimulation

I note the modelled network excludes at least one key route in Kingsfold and other continuous highway links have been broken, ***this is a concern.***

It is a concern that standard parameters have been adjusted, *I am not sure in totality how many parameters have bene changed and to what effect this has had to model performance.*

It is good to note that bus stops and bus timetables have been used. Whilst signposting has been used to highlight hazards, i don't know what influence has been had to for example Parked cars, pedestrian crossings, school crossings, blocked link as a consequence of right turners etc,

It is surprising ***and a concern*** *that actual signal timings have not been used in the base model, whether at signalised junctions or signalised roundabout. Notwithstanding these concerns, it is not possible to support a microsimulation model that I have not seen operate or have the opportunity to discuss the approach to develop the model. The printouts as presented have limited use, in isolation.* ***This is a significant concern.***

Usually a microsimulation model requires a level of fine tuning to represent the base highway network. I cannot comment further on the model.

Distribution of development traffic

No comment can be provided as I have concerns with the microsimulation model, however it is clear that 1060 units will exit onto the A582 and 40 exit onto Leyland Road.

Committed development
The TA suggest that the following development has been included. However, it is not possible to check based on the information presented. Whilst these are the most relevant, other development has been excluded.

Development included

Croston Rd Resi 07/2012/0627/ORM	*174 (350) units*
Croston Rd North Resi 07/2014/0184/ORM	*400 units*
Land at Penwortham Mills 07/2014/0190/ORM	*385 units*
Gas works 07/2015/0315/REM	*248 (281) units*
Cuerden Strategic Site 07/2017/0211/ORM	*210 units 205,600 sqm emp*
Test Track 07/2017/3361/ORM	*950 units 28000sqm emp*

Traffic growth
No traffic growth has been included in the TA, with a reason being the % growth exceeds TEMPRO. No evidence is presented to support this assumption. However, the approach is not supported as it assumes there is no other growth beyond that highlighted above. Therefore excludes:
- *Other development within South Ribble irrespective of size*
- *Other development in neighbouring authorities.*

The approach adopted is not realistic or supported and a concern

Modelling results
The modelling whilst flawed and results are not accepted to represent the network with development. it is noted that the modes have not been verified by LCC or HE.

*I note in a scenario with **no dualling** of the A582 when the development is added to a network with committed development (in 2031) in the PM on Route 2, EB (Tank roundabout towards the motorway- A582), traffic flows and average journey time reduces. This corridor is currently congested.*

I am also surprised in the opposite direction (WB) according to the model that the journey time on this route which is 1158seconds (19.3mins) to travel 4km without development then suggests 1310 seconds (22.8mins) with development. This is not a concern of the applicant.

A further example of surprising results.
Route 4 (Penwortham Bridge to Stanifield roundabout (B5254)), PM peak, SB without development 771 seconds (12.85mins), but with development having only 40 units served off Bee Lane the journey time increases to 917seconds (15.29mins). This is not a concern to the applicant.

Finally, Route 6 (Coote Ln-Brownedge Rd) PM peak, EB without development 656seconds (10.9mins) with development increases to 832seconds (13.9mins). Again, this is not a concern to the applicant.

Unfortunately, there is limited information breaking the results down to highlighting more specifically where the delays are however the results are very limiting in use.

On the strategic network at a number of locations highlighted in Table 7.16 of the TA, i question the results as traffic levels reduce on the network when development is added, this occurs during the pm peak. for example:

South of M6 J29 a reduction of 139 trip with development
North of M6 J29 a reduction of 212 trips
East of M6 J29 a reduction of 82 trips
West of M6 J29 a reduction 111 trips

Note: Results presented are without A582 dualling.

Further comments and Thoughts
We are all aware there are several pinch points on the existing network including A582 corridor where queuing extends for several hundred metres. No issues are highlighted on the existing network which is a surprise and a concern.

As a suggestion, to the applicant in overcoming issues that they might want to look at other TA that have been reviewed in the area and potentially use existing data. I know as part of Leyland Test track application, there is a pinch point on A582 that would be at theoretical capacity (prior to further development i.e. this proposal).

Other sources of data could be Cuerden application.

As highlighted and suggested there is traffic data (including queue data) available. LCC is not the custodian of application data but as documents were presented to the LPA could be available from South Ribble.

In addition, I am aware that discussions were had between LCC and The Lanes (Pickering's Farm) previous transport consultant with regard to shared data (and the analysis to support the A582 dualling).

Conclusion
Unfortunately, as the applicant did not take up pre application advice, there are a large number of concerns with all aspects of that being presented.

The strategy promoted offers no real new measures to negate against use of the private car, the general provision is as per a typical development, to support the sustainability of the site.

All aspects of the analysis and modelling requires significant level work before it can be considered suitable for consideration to represent the site and wider location.

The only conclusion that can be reached based on the documentation presented is one of non-support due to lack of supporting evidence to enable the local highway authority to come to a conclusion. The local highway authority has always been available to work with the applicant to progress this important local plan site. With this I would suggest that my offer and that of Highway England (National Highways) is taken up by the applicant.'

10.5.17. It is clear that there are some significant issues to be overcome in order for LCC Highways to support the planning applications in transport and access terms. Many of these concerns could have been addressed through the scoping stage but this appears not to have happened.

10.5.18. It is of particular concern is LCC Highways refusal to accept the data used in the modelling that was collected in April 2021 and the applicant and LCC Highways will need to engage with each other to determine appropriate data to be used. Without 'buy-in' from LCC Highways in terms of the fundamental basis for the model there is no evidence to suggest consensus can be reached.

10.5.19. LCC Highways have, in general, not responded positively to the applicant's general 'vision and validate' approach in the TA, although they appear to be generally comfortable with the vision of the development of one which is encouraging of the use of sustainable modes. However, there are concerns over the validation and evidence that such travel patterns are likely and have concerns that future car use is underestimated.

10.5.20. It is officers view that the vision and validate approach is generally appropriate and the right approach to be adopted for an outline application. Additionally, the principal of adopting a vision and validate approach over more traditional 'predict and provide' is one that has policy backing. However, the onus is on evidencing that approach which must be reasonable and robust, and the TA as presented does not do enough to 'validate' what the vision for the site is.

10.5.21. Whilst there are a range of technical comments and issues to be overcome, with varying degrees of complexity, a fundamental issue that needs to be addressed is the consideration of the Bee Lane bridge and how this is proposed to be operated. LCC Highways clearly believe that this bridge is not suitable for two-way traffic movement, and that the proposed 'Pedestrian Clear Zone' cannot be incorporated without modification. This view is also shared by Network Road and it is officers view that the use of the Bee Lane bridge for access to an additional 40 dwellings and an increase in pedestrian and cyclists is unsuitable without physical improvements.

10.5.22. In response to LCC Highways and Highways England's responses, the applicant's transport consultant, Vectos, provided commentary on all the matters raised. This was received too late to enable LCC Highway to provide an informed response at the time of compiling this report and therefore will be reported on an update sheet prior to the meeting.

10.6. **Impacts on Public Rights of Way**

10.6.1. A number of PROW's cross the Pickering's Farm site and are affected by the proposals. Lancashire County Council's Public Rights of Way Team have made a number of observations to be considered, as follows:
'Project plan 0574 MP_00_1004 indicates footpath 7-9-FP42 to be outside the application site boundary, however the attached overlay shows the definitive line of the footpath to be within the application boundary to Bee Lane.
- *To improve connectivity from the development to local amenities the full length of footpath 7-9-FP42 should be upgraded to provide a multi-use path. The path is to be a minimum width of 3 meters with a tarmac surface.*

PROW acknowledges that the line of Footpath 7-9-FP43 is shown as being widened from the point it joins the proposed exercise track from the main site entrance to Bee Lane . The section of footpath FP43 between the proposed exercise track and the western application boundary at Penwortham Way is to be retain as a footpath.
- *On reflection continuing the proposed exercise track to Penwortham Way on the western boundary of the application would provide greater connectivity for users traveling north along the Penwortham Way shared use path.*
- *As such the full length of the route Footpath 7-9-FP43 follows should be replaced with a cycle path, providing greater connectivity to the new shared use route along Penwortham Way being created as part of the A582 duelling.*
- *If any of the works are unable to be delivered directly by the applicant then a developer contribution by means of a S106 Agreement should be sought to complete the improvements.*
- *It is requested that footpath 7-9-FP43 be diverted south to the main entrance of the site, across the pedestrian crossing (linked to the request below) and a new 2m surfaced*

footpath, with a 3m wide recorded width, be created on the western side of the A582 heading north to link back with 7-5-FP24.

- *The path on the west of the A582 to be continued south from the pedestrian crossing at the site entrance to link with 7-5-FP25. If any of the works are unable to be delivered directly by the applicant, then a developer contribution by means of a S106 Agreement should be sought to complete the improvements.*

- *The necessity for a controlled crossing on the A582 Penwortham Way at the main entrance of the site remains. The controlled crossing is required to secure the safe passage of users on footpath 7-9-FP43 and 7-5-FP24, which crossing the busy A582.*

- *Project plan 0574 MP_00_1004 excluded the previously requested shared use route upgrade of 7-5-FP55 between Cross Borough Link Road, which runs through the development, and 7-9-FP57. It is requested that this link is created.*

Footpath 7-9-FP46 links to the development to the wider residential area and local amenities via Moss Lane.

- *To improve connectivity for shared use footpath 46 between Moss Lane and Bramble Court to be resurfaced to a width of 3m. If works are unable to be delivered directly by the applicant, then a developer contribution by means of a S106 Agreement should be sought to complete the resurfacing.*

- *Although there is a proposed southern link to the development for shared use via the main site access road there is no shared use connectivity to Nib Lane on the east of the development. To provide connectivity between Nib Lane and the Leyland Loop/proposed cycle path along Penwortham Way footpath 7-9-FP54 (between A582 and footpath 7-4-FP4), footpath 7-9-FP54 (between footpath 7-4-FP4 and proposed main site access road), footpath 7-9-FP56 and 7-9-Fp57 should be upgraded to a 3m wide share use path.*

- *A new footpath link should be created within the development between footpath 7-9-Fp54 and 7-9-FP55 south of Mole Hill Cottage, along the northern boundary of the application boundary.*

<u>Diversions</u> - If a diversion is necessary within the development a Diversion needs to be certified prior to commencing works

<u>Temporary closure</u> - If works relating to the application are likely to cause a health and safety risk to users of public rights of way a temporary closure needs to be in place prior to work commencing.

<u>Landscaping</u> - Needs to be at least 3 metres away from a public right of way either within the proposed development site or in the vicinity – this is to prevent health and safety risks to the public with overhanging branches and foliage or roots growing through the footpath surface creating future maintenance issues.

<u>Drainage/ground level</u> - The applicant should ensure any drainage or changes in ground level take into account public rights of way so that surface water is not channelled towards or over a public right of way to prevent flooding and future maintenance issues.'

10.6.2. The PROW Team consider that if any of the works are unable to be delivered directly by the applicant then a developer contribution by means of a S106 Agreement should be sought to complete the improvements and provide details of the costs which are reported later in the 'Impacts on Public Rights of Way' section of this report.

10.6.3. In respect of footpath diversions, the PROW Team advise that if a diversion is necessary within the development, this needs to be certified prior to commencing works. They also advise that, if works relating to the application are likely to cause a health and safety risk to users of public rights of way a temporary closure needs to be in place prior to work commencing. Additionally, any landscaping needs to be at least 3 metres away from a public right of way either within the proposed development site or in the vicinity to prevent health and safety risks to the public with overhanging branches and foliage or roots growing through the footpath surface creating future maintenance issues.

10.6.4. Finally, the PROW Team advise that the applicant needs to ensure any drainage or changes in ground level take into account public rights of way so that surface water is not channelled towards or over a public right of way to prevent flooding and future maintenance issues.

10.7. **Impacts on the Network Rail Assets**

10.7.1. In addition to Network Rail's comment on the Bee Lane proposals, they also provide Asset Protection advice and comments, as follows:
"*Measurements to railway tracks and railway boundary - When designing proposals, the developer and council are advised, that any measurements must be taken from the operational railway / Network Rail boundary and not from the railway tracks themselves. From the existing railway tracks to the Network Rail boundary, the land will include critical infrastructure (e.g. cables, signals, overhead lines, communication equipment etc) and boundary treatments (including support zones) which might be adversely impacted by outside party proposals unless the necessary asset protection measures are undertaken. No proposal should increase Network Rail's liability. To ensure the safe operation and integrity of the railway, Network Rail issues advice on planning applications and requests conditions to protect the railway and its boundary.*

RAMS - The developer is to submit directly to Network Rail, a Risk Assessment and Method Statement (RAMS) for all works to be undertaken within 10m of the operational railway under Construction (Design and Management) Regulations, and this is in addition to any planning consent. Network Rail would need to be re-assured the works on site follow safe methods of working and have also taken into consideration any potential impact on Network Rail land and the existing operational railway infrastructure. Builder to ensure that no dust or debris is allowed to contaminate Network Rail land as the outside party would be liable for any clean-up costs. Review and agreement of the RAMS will be undertaken between Network Rail and the applicant/developer. Therefore, Network Rail request that a condition is included requiring the submission of the RAMS

Fencing - The applicant will provide at their own expense (if not already in place):
- *A suitable trespass proof steel palisade fence of a minimum height of 1.8m adjacent to the boundary with the railway/railway land.*
- *The fence must be wholly constructed and maintained within the applicant's land ownership footprint.*
- *All foundations must be wholly constructed and maintained within the applicant's land ownership footprint without over-sailing or encroaching onto Network Rail's boundary.*
- *The fence must be set back at least 1m from the railway boundary to ensure that Network Rail can maintain and renew its boundary treatments.*
- *Existing Network Rail fencing, and boundary treatments, must not be damaged or removed in any way.*
- *Network Rail will not allow any maintenance works for proposal fencing or proposal boundary treatments to take place on its land.*
- *Proposal fencing must not be placed on the boundary with the railway.*

 Any fencing over 1.8m in height will require agreement from Network Rail with details of foundations and wind loading calculations submitted for review.
 The fence should be maintained by the developer and that no responsibility is passed to Network Rail.
New residents of the development (particularly minors) may not be aware of the risks posed by accessing the railway. It would not be reasonable to require Network Rail to fund boundary works, fencing and boundary enhancements necessitated by outside party development adjacent to the railway. Therefore, they require a condition to be included in requiring the provision a suitable trespass proof fence adjacent to the boundary

The developer/applicant must ensure that their proposal, both during construction, and after completion of works on site, does not affect the safety, operation or integrity of the operational railway, Network Rail land and its infrastructure or undermine or damage or adversely affect any railway land and structures.
 There must be no physical encroachment of the proposal onto Network Rail land, no over-sailing into Network Rail air-space and no encroachment of foundations onto Network Rail land or under the Network Rail boundary.
 All buildings and structures on site including all foundations / fencing foundations must be constructed wholly within the applicant's land ownership footprint.
 Buildings and structures must not over-sail Network Rail air-space.
 Any future maintenance must be conducted solely within the applicant's land ownership.
 Rainwater goods must not discharge towards or over the railway boundary
 Should the applicant require access to Network Rail land to facilitate their proposal they would need to approach the Network Rail Asset Protection Team at least 20 weeks before any works are due to commence on site. The applicant would be liable for all costs incurred in facilitating the proposal and an asset protection agreement may be necessary to undertake works. Network Rail reserves the right to refuse any works by an outside party that may adversely impact its land and infrastructure.
 Any unauthorised access to Network Rail air-space or land will be deemed an act of trespass.

<u>Scaffolding</u>
Scaffolding which is to be constructed within 10 metres of the Network Rail / railway boundary must be erected in such a manner that at no time will any poles over-sail the railway and protective netting around such scaffolding must be installed. The applicant / applicant's contractor must consider if they can undertake the works and associated scaffolding / access for working at height within the footprint of their land ownership boundary. The applicant is reminded that when pole(s) are erected for construction or maintenance works, they must have a minimum 3m failsafe zone between the maximum height of the pole(s) and the railway boundary. This is to ensure that the safety of the railway is preserved, and that scaffolding does not:
 Fall into the path of on-coming trains
 Fall onto and damage critical and safety related lineside equipment and infrastructure
 Fall onto overhead lines bringing them down, resulting in serious safety issues (this is applicable if the proposal is above the railway and where the line is electrified). Therefore, Network Rail request a condition to this effect.

<u>Vibro-Impact Machinery</u> - If vibro-compaction machinery / piling machinery or piling and ground treatment works are to be undertaken as part of the development, details of the use of such machinery and a method statement must be submitted to the Network Rail for agreement.
 All works shall only be carried out in accordance with the method statement and the works will be reviewed by Network Rail. The Network Rail Asset Protection Engineer will need to review such works in order to determine the type of soil (e.g. sand, rock) that the works are

being carried out upon and also to determine the level of vibration that will occur as a result of the piling.

- *The impact upon the railway is dependent upon the distance from the railway boundary of the piling equipment, the type of soil the development is being constructed upon and the level of vibration. Each proposal is therefore different and thence the need for Network Rail to review the piling details / method statement. Maximum allowable levels of vibration - CFA piling is preferred as this tends to give rise to less vibration. Excessive vibration caused by piling can damage railway structures and cause movement to the railway track as a result of the consolidation of track ballast. The developer must demonstrate that the vibration does not exceed a peak particle velocity of 5mm/s at any structure or with respect to the rail track.*

Therefore, if vibro-impact equipment is to be used, Network Rail request a condition is imposed for the submission of details

Drainage proposals and Network Rail land - The NPPF states at para 178 that planning policies and decisions should ensure that:
a) A site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability; and at para 163. When determining planning applications, local planning authorities should ensure flood risk is not increased elsewhere. In order to comply with the NPPF, the applicant must ensure that the proposal drainage does not increase Network Rail's liability, or cause flooding pollution or soil slippage, vegetation or boundary issues on railway land. Therefore, the proposed drainage on site will include the following:

- *All surface waters and foul waters must drain away from the direction of the railway boundary.*
- *Soakaways for the proposal must be placed at least 30m from the railway boundary.*
- *Any drainage proposals for less than 30m from the railway boundary must ensure that surface and foul waters are carried from site in closed sealed pipe systems.*
- *Suitable drainage or other works must be provided and maintained by the developer to prevent surface water flows or run-off onto Network Rail's land and infrastructure.*
- *Proper provision must be made to accept and continue drainage discharging from Network Rail's property.*
- *Drainage works must not impact upon culverts, including culverts/brooks etc that drain under the railway. The applicant will not be permitted to direct surface or foul waters into culverts which run under the railway – any discharge of surface water under the railway via a culvert will require review and agreement from Network Rail who reserve the right to refuse use of any culverts.*
- *The developer must ensure that there is no surface or sub-surface flow of water towards the operational railway.*
- *Rainwater goods must not discharge in the direction of the railway or onto or over the railway boundary.*

NB: Soakaways can materially affect the strength of soil leading to stability issues. A large mass of water wetting the environment can soften the ground, and a build-up of water can lead to issues with the stability of Network Rail retaining walls/structures and the railway boundary. Network Rail does not accept the installation of soakaways behind any retaining structures as this significantly increases the risk of failure and subsequent risk to the travelling public.

If the developer and the council insist upon a sustainable drainage and flooding system then the issue and responsibility of flooding, water saturation and stability issues should not be passed onto Network Rail. They recognise that councils are looking to proposals that are sustainable, however, Network Rail would remind the council that flooding, drainage, surface and foul water management risk as well as stability issues should not be passed 'elsewhere', i.e. on to Network Rail land.

The drainage proposals are to be agreed with Network Rail and surface water drainage on the site should be removed by a closed sealed pipe system.

The HSE identifies railways as a Major Hazard Industry. An earthwork failure within a high-hazard area has the potential to result in a catastrophic accident with multiple fatalities or long-lasting environmental issues. It should be noted that where the actions of an adjacent landowner have caused a landslip on the railway the loss adjusters are likely to advise recovery of Network Rail costs from the 3rd party, which would include costs of remediation and recovery of costs to train operators. Many railway earthworks were constructed in the Victorian period and are susceptible to failure by water saturation. Water saturation leads to an increase in pore water pressure within the earthwork material. Please also note that railways, and former railway land adjacent to it, is considered as contaminated land due to historic use of railways, which can affect the suitability of infiltration drainage."

10.7.2. Therefore, Network Rail request a condition for the submission of details of the disposal of both surface water and foul water drainage. The Council must ensure that suitable arrangements are in place for the maintenance and renewal of all new/amended drainage for the life time of the development, to mitigate risk of flooding to any adjoining land.

10.7.3. Excavation and Earthworks and Network Rail land - The NPPF states at para 178. Planning policies and decisions should ensure that:
a) A site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability.

10.7.4. Therefore, Network Rail advise: *In order to comply with the NPPF, the applicant will agree all excavation and earthworks within 10m of the railway boundary with Network Rail. Network Rail will need to review and agree the works to determine if they impact upon the support zone of our land and infrastructure as well as determining relative levels in relation to the railway. Network Rail would need to agree the following:*

- *Alterations to ground levels*
- *De-watering works*
- *Ground stabilisation works*
- *Works to retaining walls*
- *Construction and temporary works*
- *Maintenance of retaining walls*
- *Ground investigation works must not be undertaken unless agreed with Network Rail.*
- *Confirmation of retaining wall works (either Network Rail and/or the applicant).*
- *Alterations in loading within 15m of the railway boundary must be agreed with Network Rail.*
- *For works next to a cutting or at the toe of an embankment the developer / applicant would be required to undertake a slope stability review.*

Network Rail would need to review and agree the methods of construction works on site to ensure that there is no impact upon critical railway infrastructure. No excavation works are to commence without agreement from Network Rail.

The council are advised that the impact of outside party excavation and earthworks can be different depending on the geography and soil in the area. The council and developer are also advised that support zones for railway infrastructure may extend beyond the railway boundary and into the proposal area. Therefore, consultation with Network Rail is requested. Any right of support must be maintained by the developer.

Network Rail requests a condition is included requiring the submission of full details of ground levels, earthworks and excavations to be carried out near to the railway boundary.

3m Gap - Network Rail requires that the developer includes a minimum 3 metres gap between the buildings and structures on site and the railway boundary. Less than 3m from the railway boundary to the edge of structures could result in construction and future maintenance works being undertaken on Network Rail land, and close to the railway boundary potentially impacting support zones or lineside cabling. All the works undertaken to facilitate the design and layout of the proposal should be undertaken wholly within the applicant's land ownership footprint including all foundation works.

Network Rail requires a minimum 3m easement between structures on site and the railway boundary to ensure that they can maintain and renew our boundary treatments.

Noise - The council and the developer (along with their chosen acoustic contractor) are recommended to engage in discussions to determine the most appropriate measures to mitigate noise and vibration from the existing operational railway to ensure that there will be no future issues for residents once they take up occupation of the dwellings.

The NPPF states, "182.Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use), in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed."

Network Rail is aware that residents of developments adjacent to or in close proximity to, or near to the existing operational railway have in the past discovered issues upon occupation of dwellings with noise and vibration. It is therefore a matter for the developer and the council via mitigation measures and conditions to ensure that any existing noise and vibration, and the potential for any future noise and vibration are mitigated appropriately prior to construction. To note are:

- *The current level of railway usage may be subject to change at any time without prior notification including increased frequency of trains, night-time train running, heavy freight trains, trains run at weekends /bank holidays.*
- *Maintenance works to trains could be undertaken at night and may mean leaving the trains' motors running which can lead to increased levels of noise and vibration.*
- *Network Rail carry out works at night on the operational railway when normal rail traffic is suspended, and these works can be noisy and cause vibration.*
- *Network Rail may need to conduct emergency works on the existing operational railway line which may not be notified to residents in advance due to their safety critical nature and may occur at any time of the day or night, during bank holidays and at weekends.*
- *Works to the existing operational railway may include the presence of plant and machinery as well as vehicles and personnel for works.*
- *The proposal should not prevent Network Rail from its statutory undertaking. Network Rail is a track authority. It may authorise the use of the track by train operating companies or independent railway operators and may be compelled to give such authorisation. Its ability to respond to any enquiries regarding intended future use is therefore limited.*
- *The scope and duration of any Noise and Vibration Assessments may only reflect the levels of railway usage at the time of the survey.*
- *Any assessments required as part of CDM (Construction Design Management) or local planning authority planning applications validations process are between the developer and their appointed contractor.*
- *Network Rail cannot advise third parties on specific noise and vibration mitigation measures. Such measures will need to be agreed between the developer, their approved acoustic contractor and the local planning authority.*

- *Design and layout of proposals should take into consideration and mitigate against existing usage of the operational railway and any future increase in usage of the said existing operational railway.*
- *Noise and Vibration Assessments should consider any railway depots, freight depots, light maintenance depots in the area. If a Noise and Vibration Assessment does not take into account any depots in the area then the applicant will be requested to reconsider the findings of the report.*
- *Railway land which is owned by Network Rail but which may be deemed to be 'disused' or 'mothballed', may be brought back into use. Any proposals for residential development should include mitigation measures agreed between the developer, their acoustic contractor and the LPA to mitigate against future impacts of noise and vibration, based on the premise that the railway line may be brought back into use.*
- *Works may be carried out to electrify railway lines and this could create noise and vibration for the time works are in progress. Electrification works can also result in loss of lineside vegetation to facilitate the erection of stanchions and equipment.*

Trees - Proposals for the site should consider the recommendations of, 'BS 5837:2012 Trees in Relation to Design, Demolition and Construction', which needs to be applied to prevent long term damage to the health of trees on Network Rail land so that they do not become a risk to members of the public in the future. No trees shall be planted next to the boundary with the railway land and the operational railway, except for evergreen shrubs which shall be planted a minimum distance from the Network Rail boundary that is equal to their expected mature growth height. The vegetation planting must be in line with the attached matrix which has been agreed with the Tree Council. This is to prevent long term issues with leaf fall impacting the operational railway.

Parking / Hard Standing Area - As the proposal calls for the following adjacent to the boundary with the operational railway, running parallel to the operational railway or where the existing operational railway is below the height of the proposal site:
- *hard standing areas*
- *turning circles*
- *roads, public highways to facilitate access and egress from developments Network Rail requests the installation of suitable high kerbs or crash barriers (e.g. Armco Safety Barriers). This is to prevent vehicle incursion from the proposal area impacting upon the safe operation of the railway.*

Network Rail requests that a condition requiring the submission of details of appropriate vehicle safety protection measures along the boundary with the railway.

BAPA (Basic Asset Protection Agreement) - As the proposal includes works which could impact the existing operational railway and in order to facilitate the above, a BAPA (Basic Asset Protection Agreement) will need to be agreed between the developer and Network Rail. The developer will be liable for all costs incurred by Network Rail in facilitating this proposal, including any railway site safety costs, possession costs, asset protection costs / presence, site visits, review and agreement of proposal documents and any buried services searches. The BAPA will be in addition to any planning consent.

No works are to commence until agreed with Network Rail. Early engagement with Network Rail is strongly recommended. Should the above proposal be approved by the council and should there be conditions, where the proposal interfaces with the railway (as outlined in this response) the outside party is advised that a BAPA (Basic Asset Protection Agreement) must be in place, in order for Network Rail to review and agree the documentation and works outlined in conditions (and those areas covered by the discharge of conditions).

The applicant is advised that before the proposal progresses (should it be approved) they will be required to submit the development form to Network Rail's Asset Protection team and agree the BAPA before any works commence on site.

Network Rail is a Government funded Organisation and we are expected to recover our involvement costs from this type of interface, to proceed in more detail with discussions a signed Basic Asset Protection Agreement (BAPA) would be required to be in place. Permanent impacts of development are usually material considerations (such as the position of permanent structures, or drainage design etc) and where these are likely to occur, requests for planning conditions or scheme amendments are requested to protect the existing railway infrastructure from the impacts of the works on site and as a permanent arrangement. Controls on the temporary impact of construction to outside party land should also be picked up via building control, or in some cases a party wall surveyor.
Once the attached Asset Protection Questionnaire has been completed and forwarded to the team the enquiry will then be processed and an email sent to the applicant giving a project reference number and name of person with the asset protection team that will deal with the enquiry."

10.8. **Other Infrastructure Provision**

10.8.1. In addition to the requirement in Policy C1 for the CBLR, Policy C1 specified other infrastructure which is also required. At criteria a) the policy sets out '*make provision for a range of land uses to include residential, employment and commercial uses, Green Infrastructure and community facilities*'. An infrastructure deliver schedule is provided within the submitted Supporting Planning Statement which identifies the key infrastructure proposed, including a two form entry primary school; new local centre; off-site highway improvements to the Leyland Road/Bee Lane roundabout; Green Infrastructure.

10.8.2. Primary School Site- Lancashire County Council Education (LCC Education) advise that, where the growth in pupil numbers is directly linked to housing development and existing school places are not sufficient to accommodate the additional pupils that the development may yield, LCC Education would seek to secure developer contributions towards additional school places. Only by securing such contributions can LCC Education mitigate against the impact upon the education infrastructure which the development may have.

10.8.3. They have carried out an assessment which shows the level of impact on primary and secondary school places relevant to this development and provide details on the level of contribution required to mitigate the development impact.

10.8.4. They provide advice on the latest projections for the local primary schools which takes into account the current numbers of pupils in the schools, the expected take up of pupils in future years based on the local births, the expected levels of inward and outward migration based upon what is already occurring in the schools and the housing development within the local 5 year Housing Land Supply document, which already have planning permission together with other developments approved, pending approval or appeal decision which will impact upon these primary schools.

10.8.5. When assessing the need for an education contribution from this development Lancashire County Council also considers secondary school provision within a 3 mile radius of the proposed site and provide advice on the forecasted number of pupils in these schools

10.8.6. As part of the wider Masterplan area and future development noted in the Masterplan documentation, a 2FE primary school site is sought and LCC Education welcome the

inclusion of the school site in the applications. This is required to ensure both applications currently submitted are sustainable. Although the pupil places requirements of both applications are low there is the need for the school site to be safeguarded to address further demand referred to in the Masterplan. LCC Education acknowledge that the school site is expected to be provided in kind to be offset against the CIL payments and the contributions expected to be funded through a Section 106 planning obligation. The DfE 'Securing Developer Contributions for Education' guidance states that there should be an initial assumption that both land and funding for construction will be provided for new schools planned within housing developments, with the land provided on a peppercorn basis.

10.8.7. As the education contribution assessment identifies the need for a contribution and land to be provided, if the planning application is approved without the required education contribution, LCC would request that the local planning authority confirm how the shortfall of school places, resulting from the development, will be addressed.

10.8.8. Local Centre - Policy C1 at paragraph 6.13 of the SRLP states: *"To ensure this site is sustainable, community facilities (including a nursery and primary education provision), a small local centre and health care provision will need to be included within the infrastructure delivery schedule and provided through developer contributions…."*

10.8.9. Application A proposes a new local centre extending up to 2,500sqm which will comprise retail, employment, a mobility hub and a third space falling within Use Classes E and sui generis. The proposed 'third space' element of the local centre would act as a flexible co- working space for use by new residents of the sites and the existing local community. The supporting statement advises that these "*shared flexible working spaces have become popular with small business and start-up companies in recent years and with the recent shift in working patterns that is now seeing a higher number of people working from home on either a part time or full-time basis, it is essential that a site of this scale provides opportunities for residents to work, meet and collaborate locally rather than requiring a trip to other work based locations, if this is not necessary."*

10.8.10. The Supporting Statement also advises that '*the Local Centre will require a critical mass (4-5yrs from 1st completion) in order to be viable to commercial occupiers. However, the suggested location in the Masterplan makes it a good location to establish the permanent mobility hub. In advance of this critical mass, the Sites benefit from being in close proximity to other existing facilities in surrounding communities. Although outside of the Sites, they are still conveniently located to allow local living and active travel to be positively and successfully promoted. When planning permission is granted, land will be reserved by the Developers to facilitate the delivery of the local centre at the time when it is viable and attractive to potential occupiers.'*

10.8.11. This timescale raises concerns over how new residents of the Pickering Farm development will access shops and amenities prior to the provision of the local centre. There are no direct links to the Tardy Gate district centre nor the Kingsfold centre by car and therefore without the provision of the local centre at an early stage of the development, it would result in a car dependant form of development. This in turn would result in a large development that is not sustainable. The material consideration of sustainability is therefore not met.

10.8.12. In more general terms, Public Health have made a number of comments relating to the Local Centre and would recommend restrictions on the establishment of new hot food takeaway venues in wards with high obesity or high deprivation and near secondary schools.

10.8.13. Public Health also advise that, to ensure the Local Centre is accessible to all, it should include both a wheelchair accessible toilet and a Changing Places toilet to allow those with greater needs access to the whole site and improve community cohesion. This should be incorporated as a condition into the decision notice.

10.8.14. Finally, Public Health advise that one of the biggest forms of pollution is the litter in the form of single use plastics, such as bottles. Therefore, water fountains should be including in suitable locations to reduce the amount of plastic waste in an area. Public Health request the provision of a water fountain and a water bottle refill station within the Local Centre and at the two LEAPs in the site and incorporated as a condition on the decision notice.

10.8.15. Employment - As part of the Local Centre and the development as a whole the proposals will deliver a range employment opportunities. Within the Local Centre, it is proposed that offices (Use Class E) will be included at the upper floors of the local centre. Furthermore, there will be employment opportunities during the construction phase of the development and direct employment during the operational phase with the retail and commercial uses in the new local centre, and at the new Primary School when operational. There will also be indirect employment opportunities in the wider area during both the construction and operational phases as a result of new investment and through the local supply chain.

10.8.16. The outline applications are supported by an Employment Skills Report (ESR), the purpose which is to detail how the developers will offer onsite training, work experience and employment opportunities both during the construction phase and during its operational phase and are committed to strengthening the region's business, economic and employment landscape by nurturing local talent and the next generation of construction workers.

10.8.17. This ESR has been considered by Calico who consider that the two applications will potentially provide significant employment and skills opportunities for the local area which is welcomed. As an absolute minimum Calico would expect a national developer to commit to and deliver an employment and skills commitment that is relevant, proportionate and with measurable outcomes. As such the developers are prepared to commit to a condition with regards to the contents of the ESR should permission be granted. As such, the employment component of the proposed development would accord with the requirements of Policy C1 "*Make provision for a range of land uses to include residential, employment and commercial uses" t*o a limited extent.

10.8.18. Green Infrastructure - Additional to the requirements for Green Infrastructure in Policy C1, Policy G10 also requires Green Infrastructure to be provide for new residential development and sets the standards for each typology. For clarity the typologies are Amenity greenspace; Provision for children and young people; parks and gardens; natural and semi-natural greenspaces; allotments; green corridors/green wedges; cemeteries/churchyards and civic spaces.

10.8.19. The Masterplan includes 16.09ha of Green Infrastructure including amenity green space; natural and semi natural space; allotments; LEAP; LAP; swales; flood management areas; retention of existing ponds together with new ponds and school playing field. The supporting statement advises that: '*there are opportunities to deliver extensive green infrastructure across the developments. The green infrastructure will have differing forms, functions and uses and will be connected by the extensive network of green links across the sites. A variety of green infrastructure will be provided. On site green infrastructure provision includes amenity green space, equipped play areas, natural / semi*

natural open space, playing fields and allotment provision. Through discussions with SRBC and Penwortham Town Council, the application sites will propose an extension to the existing open space off Kingsfold Drive which could include areas dedicated to sports and formal play.'

10.8.20. The Green Infrastructure provision is demonstrated on the illustrative masterplan which advises:
'A safe and attractive multifunctional network of greenspace
Local play space catering to the needs of the existing and new communities within the green infrastructure areas running through both Sites;
Extension of the existing footpath network to improve accessibility to the proposed greenspaces and high vantage points for both existing and future residents;
Linkages and access into all parcels within the Sites and to the safeguarded land to the south of the allocation sites.'

10.8.21. Additionally, the existing Orchards are now to be retained and have been excluded from the red edge outline planning applications.

10.8.22. One of the matters raised by Members on the refused Masterplan was that the amount of Green Infrastructure and Public Open Space should be increases, particularly as a large swathe, some 4.7ha is located under the existing pylons which has become known as the 'Pylon Corridor'. However, it must be noted that this area is not counted towards the policy requirement. Advice from the Planning Policy Team is that there is a deficit of amenity greenspace in Charnock ward and as the development is for more than 10 dwellings, the provision of 0.003192 ha/dwelling amenity greenspace is required on site. This amounts to 3.51ha of amenity greenspace. Additionally, there is a deficit of equipped play areas for children/young people in the Charnock Ward and therefore 0.21ha of equipped play is required. The requirement for the parks/gardens typology is for a contribution of £507 per dwelling to go towards Central Parks as the site is within 1000m of it. Finally, there is a policy requirement for playing pitches contribution of £1,507 per dwelling '*if it is considered there is a deficiency in provision for the area or that the development would lead to a deficiency in the area, which would result in residents of the new development not having access to sufficient playing pitch provision'*

10.8.23. Additionally, in accordance with Policy 5 of the Penwortham Neighbourhood Plan, the Developers will: *'make S106 financial contributions towards improvements to existing sports pitch facilities. These improvements could be on land adjacent to the existing Penwortham Community Centre and will confirmed following further consultation with Sport England. All other developers on the site should make proportionate contributions towards green infrastructure, local recreational facilities and public open space, having regard to the up to date evidence base of the need for new sporting facilities.'*

10.8.24. Planning Policy comments that there is no assessment in the Masterplan as to whether the CIL funds received from the development will be sufficient to deliver improvement works to the Penwortham Community Centre. The applicants question why this comment has been made given that the CIL contribution amount is fixed and the Town Council will receive 25% of the contribution monies as they have a Neighbourhood Plan in place and there is a policy in the Penwortham Neighbourhood Plan (PNP) which states that '*The extension of Penwortham Community Centre, to include the provision of a multi-use hall and cafeteria, will be supported'* The applicant considers it would be reasonable to assume that the CIL monies awarded to the Town Council could be used either to fund or partly fund these improvements.

10.8.25. Sport England object to the proposals as they will generate additional demand for sporting provision, and it is not clear how this would be addressed in the current planning applications. Nor is it clear how the concept of active design would be achieved in the scheme to deliver an active, healthy community. To overcome the objection, Sport England would require further details that address the following issues:

1. Details of any off-site outdoor sport and indoor sport enhancements/new provision to meet the additional demand arising from the development. Sport England's Strategic Planning Tools show this development will generate additional demand equating to just over 2 ½ pitch equivalents, 43 additional visits per week to Artificial Grass Pitches, 178 additional visits per week to sports halls and additional 140 visits per week to swimming pools.
2. Incorporate the Ten principles of Active Design into the overall design of the development.

The occupiers of new development, especially residential, will generate demand for sporting provision. The existing provision within an area may not be able to accommodate this increased demand without exacerbating existing and/or predicted future deficiencies. Therefore, Sport England considers that new developments should contribute towards meeting the demand that they generate through the provision of on-site facilities and/or providing additional capacity off-site. The level and nature of any provision should be informed by a robust evidence base such as an up to date Playing Pitch Strategy or other relevant needs assessment. In this case Central Lancashire (covering South Ribble, Chorley and Preston) has an adopted Playing Pitch Strategy (PPS) dated December 2018 that should inform both protection and provision of playing fields. It is understood that the Council is undertaking some Stage E work to understand how the strategy is being delivered and keep it robust and up to date.

The Council does not have a built facility strategy in place but Sport England's national facilities data (Active Places Power) and results from the 2020 Facilities Planning Model national runs suggests that South Ribble has a theoretical sufficiency of both sports halls and swimming pools when comparing supply and demand.

<u>The Proposal and Assessment against Sport England's Playing Field Policy</u>
The proposal is understood to be an outline planning application with all matters reserved except for the principal means of access for a residential-led mixed-use development of up to 920 dwellings (Use Classes C3 and C2), a local centre including retail, employment and community uses (Use Classes E and Sui Generis), a two form entry primary school (Use Class F), green infrastructure, and associated infrastructure following the demolition of certain existing buildings. The application site area is 45.88Ha (Application A) and forms part of a wider site amounting to 52.27Ha, with a separate planning application submitted for the remining 6.39Ha (Application B).
The population of the proposed development is estimated to be 2153 (using a 2.34 occupancy rate x the number of dwellings). This additional population will generate additional demand for sports facilities. If this demand is not adequately met then it may place additional pressure on existing sports facilities, thereby creating deficiencies in facility provision. In accordance with the NPPF, Sport England seeks to ensure that the development meets any new sports facility needs arising as a result of the development.

<u>The Proposal and Impact on Existing Sports Facilities Outdoor Sport:</u>
Sport England has developed a New Development Pitch Calculator (NDPC) which was used to estimate the additional demand for different pitch types that could be generated from housing growth across the Local Plan period as part of the PPS. This calculator has been used in this instance to estimate the additional demand for pitch types arising from this development. Based on a proposed population of 2,153 (using a 2.34 occupancy rate) additional demand will be generated includes:

1. The combined additional demand for match equivalent and training sessions equates to just under 2½ pitch equivalent at an indicative capital cost of £292,296 (plus the maintenance lifecycle cost of £44,411 per annum (payable for a minimum of 10 years))

- *1a. Natural Turf – indicative costs amount to a total of £195,172 (match play during peak period).*
- *1b. The AGP indicative costs amount to a total of £97,124*

This additional demand would generate the need for just under 2¾ additional changing rooms at an indicative cost of £455,252.

2. As most of the additional demand that would be generated is for adult, youth and mini football it suggests qualitative improvements to existing pitches within the locality are required rather than new pitch provision. But that should be properly determined using evidence of overplay and spare capacity of existing pitches within the Analysis Area as set out in the PPS.

3. Shortfalls in existing provision are likely to be exacerbated by the new residents moving into the area and therefore using the latest PPS action plan and LFFP priority projects a specific site(s) should be identified where works are required to increase capacity to meet the additional/ new demand. The identified site(s) and set of works, and costs should inform a Section106 agreement.

The indicative cost for providing qualitative improvements is taken from Sport England's Sports Facilities Cost Second Quarter 2021.

Once the applicant has established how best to provide the additional capacity, after consultation with the Council and relevant National Governing Bodies of Sport, a more accurate cost analysis should be undertaken based on works required at specific sites. The cost analysis can inform the requirement for a commuted sum.

<u>3G Pitches</u>
The Central Lancashire PPS 2018 identified a need for two new 3G pitches. However, planning permission was granted on 15 January 2021 for two full size floodlit 3G artificial grass pitches at Bamber Bridge Leisure Centre. The completion of that development is anticipated to be late 2021, hopefully being open for the start of the 2021/22 football season.

<u>Indoor Sport:</u>
The SFC indicates that a population of 2,153 in this local authority area will generate a demand for:
Sports Halls Swimming Pools
Courts 0.60 Lanes 0.43
Halls 0.15 Pools 0.11
Vpwpp 178 Vpwpp 140*
Cost £368,131 Cost £403,496
**Vpwpp = visits per week in the peak period*

The table above shows that additional visits to halls and swimming pools will be generated. The applicant, in consultation with the Council should assess whether:
- *Existing facilities within the Analysis Area can accommodate the additional demand; or*
- *Improvements to existing facilities are required to build in the additional demand; or*
- *A contribution towards planned new provision is required.*

Again, the costs are indicative, and any improvements/new provision required should be informed by a more accurate cost analysis.

The Supporting Planning Statement refers to a Central Lancashire Open Space and playing Pitch SPD (Aug 2013), however there is a newer 2018 Central Lancashire Playing Pitch Strategy (PPS) that should also be referred to, with additional reference to any recent PPS Stage E work undertaken by the Council as part of the Central Lancashire PPS. In relation to sports needs there appears to be a distinct lack of information and Sport England would welcome engagement with both the developer and the Council to understand how the needs for access to sports facilities for the new population would be dealt with in this and the accompanying proposal.

Design and Layout – Active Environments

Sport England, in conjunction with Public Health England, has produced 'Active Design' (October 2015), a guide to planning new developments that create the right environment to help people get more active, more often in the interests of health and wellbeing. The guidance sets out ten key principles for ensuring new developments incorporate opportunities for people to take part in sport and physical activity. The Active Design principles are aimed at contributing towards the Government's desire for the planning system to promote healthy communities through good urban design. Sport England would commend the use of the guidance in the master planning process for new residential developments. It is noted that the objectives of the development seek to provide legibility through the site and create a movement network for pedestrian and cyclist that promote the safe connectivity within the existing and proposed built and natural environment. The provision and enhanced legibility aim to be designed to ensure the safe movement of traffic. The design principles therefore reinforce the importance of design and layout and the promotion of healthy living, including high quality green infrastructure, linking the internal elements of the site to the surrounding area. The importance of legibility is emphasised and therefore the structure of the streets set out in the outline application suggest residents and visitors will be able to intuitively find their way around and through the development between residential and non-residential elements.

Sport England generally welcomes an approach and principles in terms of active design, site permeability and active travel corridors that integrate with the existing surroundings and neighbouring communities. Supporting statements suggest that sustainable and active travel have influenced the design and layout before highways for motor vehicles. The provision of a local centre and school hubs which can be accessed by active travel is of particular importance and avoid the need for the majority or people to access it by car. A core component of the scheme in order to meet the requirements of the NPPF needs to be creating an active, healthy community and this should follow through into any reserved matters application. However, whilst the supporting documents allude to the developer's commitment to creating such a community the plans including those in the appendices to the Supporting Planning Statement are very broad and there is a degree of vagueness around exactly what would be delivered. There seems to be very few routes where cars, and pedestrians or bicycles, would be separated, and many of the routes to the local centre and school are clearly via roads rather than traffic free routes. If the LPA are minded to accept the principle from this level of detail in this outline application, much more detail would be needed at reserved matters stage to clearly demonstrate achieving an active heathy community, Sport England would welcome more of the routes to the local centre and school being attractive, safe, car-free routes. Despite having conversations with the developer's agents Sport England still considers that limited information is available to demonstrate how the active travel linkages and legibility through and within the site will be implemented. It would be helpful if the developer completed Sport England's Active Design Checklist to demonstrate how the proposal meets the Ten Principles of Active Design

In conclusion, Sport England makes no comment in relation to the principles around housing needs and has focussed on ensuring, if development goes ahead, that sufficient community infrastructure for indoor and outdoor sports facilities are provided to support the increase in

population associated with the development and that active design is incorporated to ensure that the proposal delivers a healthy community. The applicants have submitted a fairly detailed revised supporting planning statement, but still do not discuss sport or the impact the new residents will have on the existing sporting facilities/pitches in any detail. In light of the above, Sport England wishes to object to this application as it is not compliant with NPPF or the Local Plan.

10.8.26. In response to the points raised, the applicant has advised that discussions have taken place between the applicants and Sport England. They advise that: "*a formal response was provided by Sport England on 5th November. It is understood that Sport England place a holding objection on all planning applications which trigger a requirement for off-site contributions towards sporting facilities until the legal mechanism to secure this funding (i.e. a s106 Agreement) is in place. The first reason for objecting to the applications noted in Sport England's response is therefore resolvable. We have noted that Sport England have set out their expectations for contributions towards indoor and outdoor sport totalling £1,647,768 for the two outline applications. The applicants would be happy to enter into further discussions with SRBC and Sport England regarding the contributions and the S106 mechanism which would secure appropriate contributions which are sufficient to meet local policy requirements.*
Sport England have gone on to request that 'Active Design Principles' are incorporated into the proposals. The applications are in outline and seek only to fix development parameters and the primary access into the site. However, the submitted Design and Access Statement and Design Code highlights where Active Design Principles could be incorporated into the scheme. It makes reference to the integration of a walking / running route with the Penwortham Walking / Cycling route (page 31), sustainable movement patterns (page 32), the approach to healthy streets in the external spaces (page 53) and on page 54, to the importance of encouraging health and wellbeing and active lifestyles through the design of public spaces. It is the applicants' intention that Active Design Principles would be designed into the scheme at the reserved matters stage and a planning condition to secure this would therefore be appropriate."

10.8.27. It is officers view that the matters raised by Sport England can be resolved through further discussion, through a S106 contribution and by provision of further details at Reserved Matters stage.

10.8.28. Lancashire County Council's Public Health also comments on the proposals and recognise and appreciate the consideration that has been given to the impact of the development on human health within Chapter 16 of the Environmental Impact Assessment (EIA). They also welcome the use of the Hudu checklist as Assessment Framework and consider this assessment comprehensive in its approach. They provide more details on the following matters:

<u>Active Design Principles</u> – Public Health support the adoption of the Active Design Principles within the Masterplan and Design Code. These principles, developed by Sport England and supported by Public Health England, are intended to create environments that make the active choice the easy and attractive choice for people and communities. These principles are reflected within the master plan, with the priority being given to "classic mobility (i.e. two wheels and two feet)" through the creation of a series interlinking walking and cycling routes throughout the development. However, Public Health request specific consideration is given to embedding the 10 Sport England principles in the next stage of the process.

<u>Green Infrastructure</u> – Public Health support the prioritisation of green infrastructure across the site with clearly defined locations for play areas and public open spaces and welcome the buffer from Penwortham to help limit noise pollution for residents. They also appreciate the consideration that has been given to maintain as much existing green infrastructure (e.g.

hedgerows) as possible and the commitment to achieving Biodiversity Net Gain across the site. Furthermore, the allocation of land for community allotments to allow residents to grow their own produce is welcomed.

10.8.29. In conclusion, it is officers view that with the inclusion of commuted sums through a S106 Agreement that the masterplan and planning applications are policy compliant in respect of Green Infrastructure provision.

10.9. **Housing and Affordable Housing**

10.9.1. Although this application is in outline with means of access only applied for, the proposals are for up to1,100 new dwellings (Application A 920 dwellings; Application B 180 dwellings). The proposals provide for 30% affordable housing which equates to up to 330 affordable homes and therefore would accord with the requirements of Policy 7 of the Central Lancashire Core Strategy. An Affordable Housing statement by Tetlow King has been submitted. This report advises: "*The Proposed Development will help to meet the Council's challenging identified affordable housing need as part of the planned supply of open market and affordable housing. It will meet the needs of a wide range of households including those in priority need and those seeking to purchase but who are currently prevented from doing so. It will also help to reduce the not unsubstantial waiting list."*

10.9.2. Strategic Housing have advised that the submission identifies that a range of tenures will be provided though there is no firm commitment with regard to what the split of tenures would be. Furthermore, the Supporting Planning Statement defers the consideration of the tenure mix and size and type of dwelling to an Affordable Housing Delivery Scheme.

10.9.3. The current policy for the area seeks a tenure split of 70% rent and 30% intermediate provision. From the latest housing needs data and evidence, the requirements are clearly in the rental area. The deference to a subsequent Affordable Housing Delivery Scheme gives no confidence that the developer would be willing to meet that tenure split. It is considered therefore that this split should be agreed now rather than deferring to a subsequent submission. It appears highly unusual to seek to defer deliberation of an important material consideration to a later date. This concern is further emphasised by the position which was being portrayed for the previous submission whereby the overall offer for affordable provision was pitched very low on "viability" grounds.

10.9.4. A key requirement of the Penwortham Neighbourhood Plan is for older persons and single storey accommodation at a rate of 10%. It is noted that the Supporting Planning Statement sets an aim of the developer to provide this is subsequent reserved matters. There is a lack of detail on this which would add confidence to this being met with no reference to phasing and delivery. Further detail on how and when such provision will be met is required.

10.9.5. The applicants, in response to Strategic Housing's comments confirm their agreement to SRBC's preferred affordable tenure split of 70% Rented and 30% Intermediate tenures. This and other matters relevant to the affordable housing provision can be subject to appropriate provisions within a s106 Planning Obligation.

10.9.6. In terms of the statements in the Strategic Housing response that a *"key requirement" of the Penwortham Neighbourhood Plan is for older persons and single storey accommodation at a rate of 10%.* The applicant advises that "*there is no policy requirement for older persons or single storey dwellings in the Penwortham Neighbourhood Plan (PNP) or the SRLP. Policy 3 of the PNP notes the inclusion of single storey properties suitable for elderly persons accommodation 'will be supported'. However, the applicants recognise that there is a perceived demand for bungalows within the local area. The applicants will*

therefore propose a proportion of bungalow properties as part of their housing mix when submitting future reserved matters applications. Due to the fact that the applications are in outline it is considered that it is neither necessary nor policy compliant to request commitment for 10% of the properties to be suitable for elderly persons at this stage."

10.9.7. Public Health have also provided a number of comments on what they would wish to see going forward. These relate to Adaptable homes and Policy 6: Housing Quality in the Central Lancashire Core Strategy which makes a commitment to the delivery of adaptable homes, it states "Improve the quality of housing by: (c) Facilitating the greater provision of accessible housing and neighbourhoods and use of higher standards of construction."

10.9.8. Paragraph 16.81 of the EIA states "As noted in Chapter 15 Socio-economics, the South Ribble population has grown at a slower than average rate in comparison to national and regional averages. The working age population has shrunk by 4% between 2011 and 2019. In comparison, the retirement age population has increased by 22% in the same period. The dependency ratio, which is the number of non-working population (i.e. children 0-14 and persons 65+) to working population (i.e. 15-64 year olds) for South Ribble is projected to increase from 0.64 in 2021 to 0.85 in 2041, which suggests more residents retiring and difficulty for employers to recruit and replace the aging population. On a county level (Lancashire), the older population is estimated to continue to increase (JSNA, 2017). A larger population of retirement aged people in the future are likely to have specific housing needs including adaptable homes and single storey homes."

10.9.9. Public Health welcome the acknowledgement of the need for future housing in South Ribble to accommodate the needs of an ageing population, including the need for adaptable homes. The need for adaptable homes however goes beyond accommodating for the housing needs of older people. Adaptable homes make dwellings usable by a wide range of householders, from families with young children to older less agile people and anyone living with a mobility impairment whether temporarily or on a longer-term basis.

10.9.10. In terms of housing numbers, as of 1/4/21 South Ribble had in excess of five years' supply (12.6 years). This is based on the requirements of the standard methodology which has been endorsed by a Planning Inspector at a recent planning inquiry. The calculation does not include any dwellings on the Pickering's Farm site.

10.9.11. Given that South Ribble has in excess of five years' supply, the benefits of providing new market dwellings on the Pickering's Farm site has only limited weight in the planning balance. However, there is a pressing need for new affordable dwellings which is considered to carry significant weight. There is a commitment to providing 30% affordable homes, and the update from the applicant now provides a firm commitment to the tenure split of 70% rent and 30% intermediate which can be secured through a S106 agreement. Therefore, the proposals are acceptable in terms of Affordable Housing provision.

10.10. **Residential Amenity**

10.10.1. As this is an outline application with the means of access being the only matter applied for, there are no details of the proposed dwellings against which to assess the true impact on residential amenity and only a more high-level assessment can be carried out.

10.10.2. The site is currently occupied by a number of individual residential properties in private ownership. These are located on five lanes which run through the Pickering's Farm site: Bee Lane, Flag Lane, Lords Lane, Nib Lane and Moss Lane.

10.10.3. The proposed maximum building heights are shown on the submitted Parameters Plan Building Heights which shows the maximum building height zones with up

to 2.5 storeys proposed around the existing properties on the site which are to be retained. This is greater than the previous Building Height plan which showed up to 2 storey adjacent existing residential properties.

10.10.4. Elsewhere on the site, the dwellings will be up to 3-storeys, with the previous plan showing up to 4-storeys. This was one issue that was identified by planning committee at its September 2020 meeting as being unacceptable. Whilst the commitment to the reduction in height of buildings is welcome, concerns still remains over the relationship between the existing properties and the proposal for up to 2.5 storey buildings. The details design would need to clearly demonstrate sufficient buffers between existing and new to ensure that there is no impact on existing residential properties in terms of overlooking, loss of privacy or overbearing appearance.

10.10.5. In terms of existing properties within the Pickering's Farm site that will be directly affected by the proposals, to the north-western part of the site, the properties Brookfield, Wingate, Crooks Farm, Brookside, Honey Pot Barn, The Nook, Balshaw Farm, Balshaw Farm Cottage, Balshaw Croft, all off Bee Lane are excluded from the outline application site boundary as they are private residential properties. Moss Lane bi-sects Bee Lane with Ambledene, Little Orchard, Hawsthorne, Crossroads, The Oaks, Procter's Farm, Holme Farm, the Barn and Molehill Cottage along its length. These properties are in the Bee Lane Character Area.

10.10.6. Procter's Farm and the Barn together with Lea Rig on Flag Lane are in The Penwortham Edge Character Area which is described as having a rural feel and the proposal is for a mix of architectural styles and materials with low density housing of up to 3-storey set around a network of amenity green spaces.

10.10.7. On Lords Lane are properties, Asholme, Laburnum, Lingha Longa, Sunnydene, Lords House Farm together with Sibberings College on Flag Lane are within the Heart of the Lanes Character Area. The proposals for this area are for a more modern plain smooth red and multi buff brick and red or grey roof tiles.

10.10.8. On Flag Lane the properties Pickerings Farm House, Langale Estate, 23, Pear tree Cottage, Mayfield, Longworth, South View, The Bungalow and Astill Saddlery are within The Urban Edge Character Area where the proposals are for a more modern London yellow and multi buff brick with both smooth and textured faces and red and grey roof tiles.

10.10.9. Beyond the site's boundaries are a number of existing residential properties. To the site's northern boundary is the area known as Kingsfold with a number of cul-de-sacs abutting the boundary of the allocated site. However, Rookery Drive, Burwood Close, Chelford Close, Greaves Meadow, Bilsborough Hey, Braintree Avenue and Kingsbridge Close are adjacent a large parcel of land that is not included within these outline applications.

10.10.10. Properties 17 to 22 Queenscourt Avenue are semi-detached bungalows and 17 to 22 Kingshaven Drive are 2-storey semi-detached properties and abut the application site boundary. The Building Heights Plan indicated up to 2.5 storey dwellings located in the adjacent area. Properties on Bramble Court abut a parcel excluded from these outline applications.

10.10.11. Numbers 31 to 36 Copper Beeches are 2-storey semi-detached properties with the Building Heights Plan showing 2.5 storey dwellings. There is also an area set aside for surface water management to the rear of No 31 and running eastwards.

10.10.12. Properties on Fryer Close and Cloughfield are to the west of the existing properties Brookfield and Wingate. These properties are not included within the application site boundary and therefore properties are Fryer Close will not be directly adjacent to new development. However, three pairs of semi-detached two storey dwellings are located to the end of Cloughfield where up to 2.5 storey dwellings are proposed.

10.10.13. To the east is Leyland Road and a number of residential streets off Leyland Road. These include Mark Close, Werneth Close, Fir Trees Avenue, Fir Trees Crescent, Broad Meadow, Orchard Croft, Half Acre, Bridge Close, and Flag Lane. These are separated from the development site by the West Coast Mainline and the Ormskirk branch line.

10.10.14. To the south properties on Coote Lane are separated from the application site by an area of Safeguarded Land. This land is included within the Masterplan for the Pickerings Farm Site but is not part of these outline applications.

10.10.15. It is clear from the number of objections to the application that there is strong opposition to development of this site. In terms of material considerations, the impact on residential amenity in terms of loss of privacy/overlooking cannot be fully assessed at outline stage. However, as the Building Heights Parameters Plan indicates, the proposal is for maximum building heights of up to 2.5 storeys proposed around the existing properties, greater than the 2-storey previously proposed, with the aim to create a buffer to protect the amenity of the existing properties. With careful and sensitive design and with recognition of the Council's spatial separation distances at Reserved Matters stage, the development should not create overlooking or loss of privacy issues to existing properties in terms of the requirements of Policy G17

10.10.16. In terms of visual dominance, again at Reserved Matters stage, with careful siting and the use of buffers to existing properties, the proposal should not result in an overbearing and visually dominant development.

10.11. **Character and Appearance**

10.11.1. The existing residential properties within the Pickering's Farm site are a mix of styles and design, from red brick and white rendered properties, single and two stories, terraced, semi-detached and detached properties along with farms and an equestrian centre.

10.11.2. The applications include a Design and Access Statement which outlines proposals for four Character Areas within the site and the proposals for each of these Character Areas. These are Bee Lane; The Urban Edge; The Penwortham Edge and The Heart of the Lanes. Each area is provided with a description of the existing character and outlines the proposals for how the area can be developed, as follows:

<u>Bee Lane</u> – is located in the north of the Application A site adjacent to Bee Lane. The proposals are for low to medium density housing which will build on established character of Bee Lane and includes the retention of the existing landscape structure of native species rich hedgerows and mature trees which line the lane, together with existing Public Rights of Way.

This Character Area will include new amenity green space along Bee Lane and incorporate SUDs as well as provision for children. Semi-natural space will be delivered along the interface of the development with the railway to the eastern boundary. The northern extent of the Character Area lies adjacent to Kingsfold Playing Fields and will be designed for surface water storage purposes. The character area will predominately include retention of existing green infrastructure features as well as the flood management area to the north.

Heart of the Lanes - The central area of the Application A site will be made up of higher density housing centred on a village green and Local Centre. This will form the heart and identity of the Lanes development. The Village Centre will have frontage onto the spine road and good visibility from the entrance to the site. It will also relate well to the pedestrian movement from Kingsfold to the village green. The area will have a suburban feel with a mature character due to retained trees, hedges and amenity green space verges along Flag Lane and Lord's Lane ensuring the existing landscape pattern is retained. The area is well connected by pedestrian and cycle routes. The remaining green space will have an open, feel with open amenity space receding into meadow / wild grassland boundaries. The area contains a mixture of use classes, including residential, retail, commercial, employment, leisure and community. The buildings will be modern in character, with a height up to 3 storeys. The hard material palette will comprise of red and brindle tones to replicate a semi-urban feel, with high quality materials used in the central communal areas.

The Urban Edge – This Character Area lies within both Application A and B sites boundaries. The eastern extent of the site adjacent to the railway line will have a tighter grain with a higher density, linear and urban feel with a natural/grey colour palette. The area will have a contemporary suburban feel with modern and elegant materials forming rich and characterful architecture. The massing within this area is to be up to a height of 3 storeys. In comparison to the rest of the site, there is minimal mature vegetation, with the predominant tree species being Ash. There will be a substantial amenity and natural green space provision, with a planted margin providing a buffer against the railway boundary. The historic field patterns give an orthogonal, more gridded approach to the urban layout.

The general absence of mature landscape features provides the opportunity for character creation and as such a muted palette of grey-blue colours are proposed to offer a crisp setting to the proposed modern architectural building façades. Semi-natural green space is proposed along the interface with the railway line with east-west provision to provide green infrastructure to connectivity. To the northern amenity green space is orientated alongside road infrastructure and includes swales, a LEAP and Public Right of Way connecting Kingsfold with Lostock Hall. Given the opportunity for character creation, there is a particular opportunity to create public greening with fruiting/productive species.

Penwortham Edge - The south western extent of both application sites A and B will have a very rural feel with a significant buffer of natural green space referencing the neighbouring green belt beyond Penwortham Way. Within this zone, there can be a mixture of architectural styles and materials that form the gateway, with a strong landscape entrance as a visual marker for the whole development. This Character Area will comprise of low density housing, of up to 3 storey and set out around a network of amenity green space. A significant portion of natural green space will include swale and wetland areas.

Tree planting within the natural green space provision will include oak, elm, lime, poplar, ash, hawthorn and cherry, which can already be found along the Penwortham Way boundary.

10.11.3. As the current applications are in outline only, the detailed design at RM stages will need to ensure that the existing character is enhances and natural assets such as trees and hedgerow retained.

10.12. **Ecology and Nature Conservation**

10.12.1. GMEU have been involved with this site for a considerable period of time and commented on earlier iterations of the Masterplan and the outline application 07/2020/00015/ORM, which was subsequently withdrawn. The following survey reports have been updated and considered by GMEU:

- Phase 1 Habitat Survey (Appendix 7.2)
- Hedgerows (Appendix 7.3)

- Arboricultural Report (Appendix 7.4)
- Badger (Appendix 7.5)
- Barn Owl (appendix 7.6)
- Bats in trees and buildings (Appendix 7.13)

10.12.2. GMEU advise: *The validity of the surveys is confirmed, however there are a number of matters of evaluation and impact assessment which GMEU do not concur with and would advise the Local Planning Authority to take into consideration within the wider planning balance. Additional documents have also been submitted with the current application. I have considered:*

- *Environmental Statement ([ES] Chapter 7, Ecology)*
- *Planning Statement*
- *Biodiversity Net Gain Assessment ([BNG Assessment] August 2021, version -) This also includes the BNG metric calculation spreadsheet, which was requested from the LPA/Applicant*
- *Design & Access Statement – Design Codes Applications A and B ([DAS] August 2021)*

Baseline Assessment
The surveys of the application sites have consistently identified a number of features of substantive biodiversity value

Species rich hedgerows - The hedgerow resource within the site is identified as of County Significance within the Environmental Statement. This includes a significant number of hedges of Importance as defined by the Hedgerow Regulations (1994), along with other species rich hedgerows that the BNG Assessment consider are in moderate or good condition. All hedgerows are considered Priority Habitats (NERC 2006 [Section 42 of Natural Environment and Rural Communities Act]). This is considered more fully below.

Invasive Non-Native Species (INNS) - The site supports Japanese knotweed, Himalayan balsam, and Japanese rose which are all listed on Schedule 9 of the Wildlife & Countryside Act.

Bat roosts and potential bat roosts in trees - The bat roost found at building 3 (Lords Lane) is now outside the current outline application boundaries. The only aspects that are considered below are potential tree roosts and how the presence of the bat roost needs to be considered within the current outline proposals. Bats and their roosts are of substantive value and are protected via the Conservation of Habitats & Species Regulations (Amendment) (EU Exit) 2019.

The following features now lie outside the current outline application boundaries, but are still of relevance to the proposals:

Orchards - The areas which are identified as orchard within the various documents lie outside both current outline application boundaries. However, these habitats are considered within the BNG Assessment. For the avoidance of any future doubt, GMEU do not concur with how this habitat has been categorised within the documents and consequently how it is analysed within the BNG calculation. This matter is not considered further in this response, but GMEU highlight it as a matter that will need to be addressed going forward should the wider site come forward for development.

Barn owl - Building B3 (Lords Lane) supports roosting barn owl. The building is now outside the current application boundaries. However, as barn owl receive additional protection than that generally afforded wild birds during the nesting season (Schedule 1, Wildlife and

Countryside Act 1981), the implications of the presence of roosting barn owl is considered as it relates to both outline applications.

Impacts of the proposal and layout
Hedgerow and tree loss - A comparison of the Hedgerows of Significance Plan (see attached) compared with the DAS's proposed tree removals (see also attached) is unclear about the extent of tree and hedgerow loss as a result of the scheme. The statements on retention of hedgerows where possible are not helpful in determining the significance of the impacts of the scheme on this important biodiversity receptor. Additionally, the Biodiversity Net Gain calculation is apparently based on the complete loss of hedgerows from the site. I would strongly suggest that some clarity is sought on this matter prior to determination.

The ES identifies hedgerow loss as only a short term impact and neutral in the medium term. The ES does not seek to define what timeframe applies to this feature. However, it is GMEU's opinion that the loss of the hedgerows (species rich and Important) along with mature trees they support will be a significant impact in the medium term for the hedgerows (12 – 20 years to reach condition in the BNG metric) and a long term impact for mature trees within those hedgerows. It can be considered that it will take 80 – 120 years for an oak to reach maturity and peak acorn production and 50 – 80 years to reach middle age. While ash trees can be considered to reach maximum height and adulthood at around 60 years, although due to ash dieback ash are not recommended for planting and is only mentioned here as an example.

It is noted that the ES chapter indicates a replacement ratio of 3:1 for trees and 1.5:1 for hedgerow length. It is recommended that this is required via condition and that all landscape proposals for each phase should achieve this.
Lighting and wildlife impacts

In order to deal with the impacts on the bat and barn owl roost the ES indicates that a sensitive lighting scheme should be implemented. In line with the NPPF (July 2021 para 185 c)) we recommend that applicants follow the Institute of Lighting Professionals guidance (01/21 obtrusive lighting and 08/18 wildlife sensitive lighting).

A lighting scheme should include details, location and specifications for all highways lighting, pedestrian footways and external domestic security/ambience lighting. This should be applied to all boundaries/retained hedges, but in particular to the western and north western end of Application B and the south and south eastern end of Application A as this will protect commuting routes for both bats and barn owls. A condition to this effect should be appended to both Application A & B and it is recommended that this detail is provided at Reserved Matters stage.

Landscape proposals - The current outline only provides the broadest of indication of the palette to be used in planting with very little detail on other seeding or planting proposals. It would have been beneficial to agree a site wide planting palette prior to the first submission of Reserved Matters this should be secured via condition. It is recommended that the species identified within the DAS should be expanded and that the hedgerow specification should have a strong regard to the hedgerow and tree surveys. The landscape schemes to be submitted should also include a Biodiversity Enhancement Plan (see below).

Protection of Biodiversity - It is recommended that each phase of the development is supported by a tree and hedgerow retention plan. The detail submitted should include fencing to the appropriate British Standard to both hedge and tree root protection zones. The plans of retention should be submitted at Reserved Matters. This should also be included as part of the CEMP and secured via a condition.

Method Statements for the treatment and control of the INNS should be provided prior to the commencement of works including any earthmoving, enabling works or vegetation clearance this should be secured via condition. In relation to Japanese knotweed the following is recommended.

- *Detailed mapping of the distribution of the plant across the site.*
- *Suitable signage and protection from vehicle tracking and/or earth moving. This is usually 7m from above growing parts of the plant (see research)*
- *Treatment programme GMEU cannot recommend which method of treatment is most appropriate but we advise this may be on or more of the following –*
  - *Spraying over multiple seasons (3 – 5 years). An Environment Agency permit might be required to treat the plant adjacent to a watercourse*
  - *Root/rhizome injection (3 years)*
  - *Burying on site with suitable depth and geotextile root barrier membrane*
  - *Removal and disposal at a licenced tip*
- *Biosecurity protocols for machinery and soil handling & storage*
- *Monitoring and retreatment programme for minimum of 5 years post site clearance*

Any CEMP, that is secured via condition, should also include details of nesting bird protection measures including ground nesting species. This should include a pre-commencement check by a suitably qualified person of any works (earthmoving, enabling or vegetation clearance) timetabled to start during the bird breeding season (March – August inclusive). If nesting birds are found and works cannot be avoided, then details of work exclusion zones and methodology for repeat checks should also be included.

The conditioned CEMP should include details of a section/soft fell protocol for all trees with bat roost potential where they have been discounted as supporting a roost. Reasonable Avoidance Measures should also be supplied for trench, service channels, footings or other dug feature for common amphibians, reptiles and small mammals.
The conditioned CEMP for each phase should include the location of any site compound (incl welfare facilities, material store and wheel washing facilities) and construction lighting of this and any haul roads across the site.

Pre-commencement conditions for surveys are required for:

- *Badgers within 3-6 months in advance of the proposed start on each phase. This should include a 30m buffer around any boundaries.*
- *The updated bat report includes results of surveys for a number of trees with high and moderate roost potential. The extent of these surveys (updated Appendix 7.13) does not seem to accord with the trees identified and shown within the Phase 1 Habitat Plan (GR6900.03.001 sheets 1 to 5). It is recommended that for each phase at Reserved Matters there is cross reference with the Phase 1 Habitat Plans, the tree retention plan and any trees requiring tree surgery work.*
- *Updated surveys should identify any changes in the conditions and any additional mitigation or compensation, along with an assessment for a need for a licence.*

<u>Biodiversity Mitigation and Enhancement Plan</u> - Each phase or Reserved Matters application should be supported by a Biodiversity Mitigation and Enhancement Plan. This should be secured via condition on each application (Application A & B), to include specification and locations for as identified within the ES Chapter 7:

- *Replacement bat boxes supplied as compensation at a ratio of 3:1 for each moderate or high potential tree roost lost.*
- *Additional bat boxes for houses and/or trees as enhancement.*
- *Bird boxes should be supplied as compensation at a ratio of 2:1 for trees and buildings lost. It is noted that this does not include compensation for lost nesting within hedgerows.*

- *Hedgehog/small animal highways through boundaries to create ecological permeability. This should also be reflected in the boundary treatment specification.*
- *Five barn owl boxes to be supplied as compensation for impacts to the roost area. It is suggested that one is required for each phase up to the maximum of 5.*

Each phase of the scheme should be supported by a resourced Landscape and Habitat Management Plan for a minimum period of 30 years in accordance with the BNG requirement.

Biodiversity Net Gain (BNG) - The commentary provided within the Planning Statement in respect of BNG is noted. This is a policy matter, but it is important to recognise that in order to achieve a high quality and biodiversity rich scheme for over 1,000 homes (Application A & B) it would be exemplary to demonstrate the achievement of 10% net gain. The Environment Act 2021 recently received Royal ascent and a 10% uplift will be a requirement when the Act is enacted in statute.

Currently the scheme shows a 2.0% uplift across the whole scheme for habitats and GMEU would question some elements of this, which would reduce the uplift to less than 2%. This is due to the lack of agreement that school playing fields would attain moderate condition whereas GMEU would say that this would only achieve poor condition. Additionally, the BNG calculation includes the whole of the wider site, including parts that are not currently within either outline application boundary and misidentifies the status of the orchards.

The BNG calculation does not cover Application A or B separately but is calculated across the whole site including areas which do not fall within either of the outline application boundaries. This may be acceptable across the wider allocation and Masterplan area.

It is strongly recommended that the Local Planning Authority set a threshold of BNG to be achieved across the site which is higher than 2% for the habitat element. This can be secured via a condition to be attached to the outline applications (Application A & B).

The BNG calculation is based on the complete loss of hedgerows and replanting across the wider site, which on paper can achieve a net gain of >18%. However, as outlined above GMEU do not think the loss of all hedgerows is an acceptable approach to adopt and should be clarified prior to determination.

In summary and conclusion:

- *GMEU recommend that clarity is sought regarding tree and hedgerow removal prior to the determination of the application.*
- *It is suggested that a percentage Biodiversity Net Gain uplift is agreed prior to determination.*
- *Following resolution of these matters a number of conditions are recommended to secure the implementation of appropriate mitigation and compensation for biodiversity impacts.*
- *GMEU can provide examples as to how conditions/obligations can be framed to secure the quantum of the agreed uplift across the whole of the development as phases come forward.*
- *The points raised above, and the recommended conditions apply to both the outline applications.*

10.12.3. The Lancashire Wildlife Trust also comment on the proposals raising specific objections to some of the processes and assertions which lead to unsound conclusions in respect of the required delivery of nature's recovery. The LWT advise the following:

Natural / semi-natural spaces shown do not seem to be associated with a particular strategy linked to a wider ecological network or to the movement of wildlife within and through the site, or to any concept of a nature recovery network.

Hedges retained are proposed to form part of house-boundaries and so susceptible to individual householders undertaking inappropriate or no management for biodiversity or even replacement of hedges by low fences or walls.

Hedges on the application site are assessed by the applicant's ecologist as major contributors to the site's current local significance for breeding bird communities – some of which are UK "Red" or "Amber" list species - and it will be important to secure such bird communities' habitats onsite or, failing that, offsite before development commences in order to maintain, preferably increase, the local avian population size and diversity.

Similar considerations pertain to the site's current use by local bats, as confirmed by the applicant's commissioned assessment; "the hedgerows, trees, ditches and ponds within the site provide suitable foraging and commuting habitat for bats".

The Outline CEMP set out in Section 8 of the Supporting Planning Statement does not include content about protecting ecological features. There clearly needs to be a requirement to submit a CEMP (including measures to protect trees, hedgerows etc)

It is also stated that a "landscape and habitat management plan will be produced and implemented….. This management plan will serve to enhance and maintain the quality of retained and newly created habitats in the long-term, including the traditional orchard, deciduous woodland, trees and hedgerows as well as maintenance of bat, barn owl and bird boxes". This is not mentioned in the section about developer contributions or a Section 106 agreement.

Attention is drawn to the ecological consultant's TEP's conclusion in the ecological section of the Environmental Statement that; "Overall the assessment shows that even prior to mitigation, impacts in traditional EIA terms are not significant (i.e. in CIEEM terms impacts are significant at no more than the local context). Furthermore, the assessment concludes that after mitigation the overwhelming majority of residual impacts are reduced to neutral, with the few remaining impacts reducing to neutral within only a medium term."

It is the Wildlife Trust' view that the applicant's consultant ecologist has, therefore, "qualitatively concluded that the development, if implemented as proposed, would, at best, only be net neutral for the site's biodiversity resource and that some of the initial biodiversity losses would not achieve that net neutrality until the medium term with no provision for mitigation for interim losses until 'the medium term' had passed. Use of Natural England's Biodiversity Metric 3.0 would demonstrate this more quantitatively, at least in respect of priority habitats.

National policy sets out that planning should provide biodiversity net gains where possible. The Government's 25-year Environment Plan sets out the aspiration to mainstream biodiversity net gain in the planning system and move towards approaches that integrate natural capital benefits. The Environment Bill, when enacted will require a minimum 10% net gain, calculated using DLUHC/Defra Natural England Biodiversity Metric 3.0 or any successor, and approval of a net gain plan, with habitat secured for at least 30 years via obligations and/or conservation covenant. National Planning Policy Framework (2021), Paragraphs 174(d), 175, 179(b) and 180(d) refer to this policy requirement and the Natural Environment Planning Practice Guidance (PPG), last updated on 21st July 2019, provides further explanation on how this should be done; notably paragraphs 022 to 027 inclusive.

The proposal would appear to us to contradict guidance in the current National Planning Policy Framework (NPPF); and particularly in paragraph 180:
d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."

The Wildlife Trust consider the proposal also fails to demonstrate quantitative delivery on adopted Central Lancashire Core Strategy. Policy 22: Biodiversity and Geodiversity seeks to conserve, protect and seek opportunities to enhance and manage the biological and geological assets of the area. For similar reason, The Wildlife Trust contend that it is also against the intent of Policy G16, and particularly:
a) The need to minimise impacts on biodiversity and providing net gains in biodiversity where possible by designing in wildlife and by ensuring that significant harm is avoided or, if unavoidable, is reduced or appropriately mitigated and/or, as a last resort, compensated

A planning appeal inspector's report on an appeal in Kent would appear to cast some light on where things may currently stand:
APP/M2270/W/18/3215766 Planning appeal decision date 24th July 2019; Land at Common Road, Sissinghurst, Cranbrook, Kent TN17 2JR; Tunbridge Wells BC (Paragraphs 29 to 32 cover biodiversity)
"Para. 32: An empirical means of measuring whether the mitigation listed by the appellant would result in a net gain in biodiversity has not been submitted. Therefore, I cannot be certain the measures would result in a net gain, as required by Paragraph 170 of the National Planning Policy Framework. The submissions include differing expert opinions on this point. This is a material consideration weighing against the appeal scheme even though there would be no conflict with the requirements of the development plan, which are now out of date."

As this is an outline application, The LWT consider "it is impractical to comment in detail on biodiversity net gain at this stage. However, no baseline assessment, from which net gain could be quantitatively demonstrated, has been made using Natural England's online Biodiversity Metric Version 3.0. Therefore, a planning condition requiring 10% net gain to be provided should be imposed or a requirement to demonstrate Biodiversity Net Gain in respect of each reserved matter application using whichever Natural England Biodiversity Metric may be current at that time.

If the applicant is to enter into a s106 agreement, it would be preferable to include a clause undertaking to provide net gain of 10% in respect of each phase of the development (if that be reasonably achievable). The 'net gain' argument in the submitted documents is heavily reliant on retention of trees and hedgerows but does not address the restoration, potential expansion, and subsequent management of these (to say nothing of any other priority habitats) for the actual retention and enhancement of their characteristic biodiversity, including appropriate adaptation to "baked in" local climate change over the proposed development's lifetime. In that particular regard, the open space plan doesn't appear to indicate any strategy for ecological corridors and links to corridors / wildlife sites outside the application boundary or to identify and propose delivery of nature recovery networks."

10.12.4. In response to GMEU and The Wildlife Trust's comments, the applicant has advised that the responses are currently being reviewed by their Ecologists TEP who will liaise directly with GMEU to provide clarification on matters raised in the response and then will revert back to officers on the progress made ahead of the Planning Committee meeting. It is officer's view that these matters are capable of being addressed with the provision of further details. Therefore, an update sheet will be provided before the meeting.

10.12.5. Natural England provided more general advice to the LPA on the following:

Landscape - the requirements of Paragraph 174 of the NPPF which highlights the need to protect and enhance valued landscapes through the planning system. This application may present opportunities to protect and enhance locally valued landscapes, including any local landscape designations.

Best and most versatile agricultural land and soils – LPA responsibilities to ensure that they have sufficient detailed agricultural land classification (ALC) information to apply NPPF policies (Paragraphs 174 and 175). They also refer to guidance on soil protection in the Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites and recommend its use in the design and construction of development, including any planning conditions. Therefore, they advise that the developer uses an appropriately experienced soil specialist to advise on and supervise soil handling.

Protected Species - Natural England has produced standing advice1 to help planning authorities understand the impact of particular developments on protected species.

Local sites and priority habitats and species – consideration of the impacts of the proposed development on any local wildlife or geodiversity sites, in line with paragraphs 175 and179 of the NPPF. There may also be opportunities to enhance local sites and improve their connectivity.

Ancient woodland, ancient and veteran trees – consideration of any impacts on ancient woodland and ancient and veteran trees in line with paragraph 180 of the NPPF. Natural England maintains the Ancient Woodland Inventory which can help identify ancient woodland. Natural England and the Forestry Commission have produced standing advice for planning authorities in relation to ancient woodland and ancient and veteran trees which should be considered by planning authorities when determining relevant planning applications.

Environmental gains - Development should provide net gains for biodiversity in line with the NPPF paragraphs 174(d), 179 and 180. Development also provides opportunities to secure wider environmental gains, as outlined in the NPPF (paragraphs 8, 73, 104, 120,174, 175 and 180). Natural England advice is to follow the mitigation hierarchy as set out in paragraph 180 of the NPPF and firstly consider what existing environmental features on and around the site can be retained or enhanced or what new features could be incorporated into the development proposal. Opportunities for enhancement might include such measures as providing a new footpath to link into existing rights of way; restoring a neglected hedgerow; creating a new pond; planting trees characteristic to the local area; using native plants in landscaping schemes; incorporating swift boxes or bat boxes into the design of new buildings; designing lighting to encourage wildlife and adding a green roof to new buildings.

Consideration should also be given to how the proposed development can contribute to the wider environment such as links to existing greenspace; identifying opportunities for new greenspace and managing existing public spaces to be more wildlife friendly; planting additional street trees; identifying any improvements to the existing public right of way network; restoring neglected environmental features

Access and Recreation - Natural England encourages any proposal to incorporate measures to help improve people's access to the natural environment. Measures such as reinstating existing footpaths together with the creation of new footpaths and bridleways should be considered. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure.

Rights of Way, Access land, Coastal access and National Trails - Paragraphs 100 and 174 of the NPPF highlight the important of public rights of way and access. Development should consider potential impacts on access land, common land, rights of way and coastal access routes in the vicinity of the development. Consideration should also be given to the potential impacts on the any nearby National Trails.

Biodiversity - Conserving biodiversity can also include restoration or enhancement to a population or habitat.

10.13. **Trees and Hedgerows**

10.13.1. The Pickering's Farm site includes a number of mature trees and hedgerows some of which will be lost as a result of the development. However, on the whole a large number will be retained. Chapter 7 of the Environmental Statement considers Ecology and Nature Conservation and a hedgerow assessment is included at Appendix 7.3 and a Tree Survey Report at Appendix 7.4

10.13.2. Paragraph 131 of the NPPF advises that: '*trees make an important contribution to the character and quality of urban environments and can also help mitigate and adapt to climate change. Planning policies and decisions should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.*

10.13.3. The Council's Arboriculturist advises that an Arboricultural Impact Assessment should be submitted at the next planning stages, as should a detailed landscaping plan with design in keeping with Para 131 of the NPPF July 2021, unless this is inappropriate. Importantly, TPO 2021 No 2 is in force and Policy G13 of The Local Plan should be adhered to. This would be something to be taken into consideration at the RM stages.

10.14. **Flood Risk and Drainage**

10.14.1. Chapter 11 of the ES deals with Flood Risk and Drainage and a Flood Risk Assessment (FRA) has been provided as Appendix 11.1 of the document. It identifies risks associated with the following:

- Mill Brook, northern culvert and general surface water and groundwater flooding;
- Penwortham Way;
- Development drainage proposals; and
- Development land drainage proposals.

10.14.2. The Environment Agency (EA) have considered the FRA and confirm that the site is located within Flood Zone 1 defined as having a low probability of flooding in the National Planning Practice Guidance. They also confirm that, based on the information currently available, the development raises no environmental concerns for the Agency. However, they provide advice on Groundwater Protection and refer to their groundwater position statements which sets out the EA's position for a wide range of activities and developments. The EA also provide advice on Fisheries and Biodiversity and the requirement in the NPPF to ensure biodiversity enhancement in and around developments are identified and incorporated into the proposed development.

10.14.3. The EA advise that there are a number of ordinary watercourses on the development site and would encourage opening up of culverts if any exist and improvement /naturalisation/ creation of new and existing watercourses. Not only could this contribute to the provision of biodiversity net gain, the provision of wider ecological benefits to the aquatic environment and would help to deliver Water Framework Directive (WFD) improvements.

10.14.4. Under the Flood and Water Management Act 2010 the Lead Local Flood Authority (LLFA) is the responsible 'risk management authority' for managing 'local' flood risk from surface water, groundwater or from ordinary watercourses. The LLFA has no objection to the proposed development but recommended a number of conditions advising that drainage is not only a material consideration but an early and fundamental activity in the ground construction phase of any development and it is likely to be physically inaccessible at a later stage by being buried or built over. It is of concern to all flood risk management authorities that an agreed approach is approved before development commences to avoid putting existing and new communities at risk.

10.14.5. The revised NPPF considers sustainable drainage systems to be important and states that they should be incorporated unless there is clear evidence that this would be inappropriate and, as such the LLFA needs to be confident that flood risk is being adequately considered, designed for and that any residual risk is being safely managed.

10.14.6. To be able to do this the LLFA requires an amount of certainty either by upfront detail or secured by way of appropriate planning conditions. The requested conditions relate to the submission of a detailed surface water sustainable drainage scheme for the site to be submitted as part of any reserved matters application. The detailed sustainable drainage scheme shall be based upon the site-specific flood risk assessment and sustainable drainage principles set out in the National Planning Policy Framework, Planning Practice Guidance and Defra Technical Standards for Sustainable Drainage Systems. No surface water shall be allowed to discharge to the public sewer, directly or indirectly.

10.14.7. The details shall include, as a minimum**:**
a) Final sustainable drainage layout plan appropriately labelled to include all pipe/structure references, dimensions, design levels, discharge rates, finished floor levels in AOD with adjacent ground levels. Final sustainable longitudinal sections plan appropriately labelled to include all pipe/structure references, dimensions, design levels, discharge rates, with adjacent ground levels. Cross section drawings of swales, flow control manholes, attenuation pond inlets/outlets, flood basin inlets/outlets, watercourse outfalls and manhole on watercourse.
b) Cross section drawings of attenuation ponds and flood basins with 1 in 1 year, 1 in 30 year and 1 in 100 year + climate change water levels.
c) The drainage scheme should be in accordance with the principles and mitigation measures of the Lees Roxburgh Limited The Lanes, Penwortham, Preston Flood Risk Assessment Report no.6337/R2 dated August 2021 and demonstrate that the surface water run-off and volume shall not exceed the pre-development run-off. The scheme shall subsequently be implemented in accordance with the approved details before the development is completed.
d) Sustainable drainage flow calculations (1 in 1,1 in 2, 1 in 30 and 1 in 100 + climate change).
e) Plan identifying areas contributing to the drainage network
f) Measures taken to prevent flooding and pollution of the receiving groundwater and/or surface waters, including watercourses,
g) A plan to show overland flow routes and flood water exceedance routes and flood extents.

h) Evidence of an assessment of the site conditions to include site investigation and test results to confirm infiltrations rates;
i) Breakdown of attenuation in pipes, manholes, swales, attenuation ponds and flood basins.

10.14.8. The LLFA also require details of how surface water and pollution prevention will be managed during each construction phase which include for each phase, as a minimum:
a) Measures taken to ensure surface water flows are retained on-site during construction phase(s) and, if surface water flows are to be discharged, they are done so at a restricted rate to be agreed with the Lancashire County Council LLFA.
b) Measures taken to prevent siltation and pollutants from the site into any receiving groundwater and/or surface waters, including watercourses, with reference to published guidance.

10.14.9. Further, the LLFA require the submission of a Verification Report and Operation and Maintenance Plan for the lifetime of the development, pertaining to the surface water drainage system. The Verification Report must demonstrate that the sustainable drainage system has been constructed as per the agreed scheme.

10.14.10. Details of appropriate operational, maintenance and access requirements for each sustainable drainage component are also to be provided, through an appropriate Operation and Maintenance Plan for the lifetime of the development as constructed. This shall include arrangements for adoption by an appropriate public body or statutory undertaker, and/or management and maintenance by a Management Company and any means of access for maintenance and easements, where applicable.

10.14.11. The LLFA advise that all attenuation basins, flow control devices/structures and offsite connections to the proposed SuDS drainage relevant to any phase and downstream of that phase to the outfall are to be constructed and operational prior to the commencement of any development within that phase and require a condition to ensure this.

10.14.12. The LLFA also require an informative note to advise the applicants that their response does not grant them permission to connect to the ordinary watercourse/culverted watercourse. The applicant would need to obtain Land Drainage Consent from Lancashire County Council before starting any works on site.

10.14.13. The EA also comment on the disposal of surface water, advising that developers should incorporate pollution prevention measures to protect ground and surface water and refer the applicant to the latest Pollution Prevention Guidance. Surface water run-off should be controlled as near to its source as possible through a sustainable drainage approach to surface water management (SuDS). SuDS manage surface water run-off by simulating natural drainage systems. Whereas traditional drainage approaches pipe water off-site as quickly as possible, SuDS retain water on or near to the site. As well as reducing flood risk, this promotes groundwater recharge, helps absorb diffuse pollutants, and improves water quality. Ponds, reed beds and seasonally flooded grasslands can also be particularly attractive features within public open spaces.

10.14.14. SuDS involve a range of techniques including soakaways, infiltration trenches, permeable pavements, grassed swales, green roofs, ponds and wetlands. As such, virtually any development should be able to include a scheme based around these principles. In doing so, they'll provide multiple benefits and will reduce costs and maintenance needs.

10.14.15. Approved Document Part H of the Building Regulations 2010 establishes a hierarchy for surface water disposal and encourages a SuDS approach. The first option for

surface water disposal should be the use of SuDS, which encourage infiltration such as soakaways or infiltration trenches. In all cases, it should be established that these options are feasible, can be adopted and properly maintained and would not lead to any other environmental problems. For example, using soakaways or other infiltration methods on contaminated land carries groundwater pollution risks and may not work in areas with a high water table. Where the intention is to dispose to soakaway, these should be shown to work through an appropriate assessment carried out under Building Research Establishment (BRE) Digest 365. This is acceptable at this stage, but further detail would be required at RM stages. United Utilities advise that, in accordance with the National Planning Policy Framework (NPPF) and the National Planning Practice Guidance (NPPG), the site should be drained on a separate system with foul water draining to the public sewer and surface water draining in the most sustainable way.

10.14.16. Following their review of the submitted Flood Risk Assessment / Drainage Strategy, UU confirm the surface water proposals are acceptable in principle. However, there is very limited information provided in relation to the proposed foul drainage other than there are two points of connection splitting the site. UU would also like to point out that where pumping stations are to be utilised for the site wide foul drainage scheme, they would look to work with the developer to minimise the proliferation of unnecessary pumping stations. On this basis UU request conditions are attached to any subsequent approval in respect of the submission of a Site Wide Foul Water Drainage Strategy; detailed Foul Water Drainage Scheme for each Phase of the development

10.14.17. In terms of wastewater, if the applicant intends to offer wastewater assets forward for adoption by United Utilities, the proposed detailed design will be subject to a technical appraisal by an Adoptions Engineer as they need to be sure that the proposal meets the requirements of Sewers for Adoption and United Utilities' Asset Standards. The detailed layout should be prepared with consideration of what is necessary to secure a development to an adoptable standard. This is important as drainage design can be a key determining factor of site levels and layout. The proposed design should consider long term operability and give United Utilities a cost effective proposal for the life of the assets.

10.14.18. UU also advise that without effective management and maintenance, sustainable drainage systems can fail or become ineffective. As a provider of wastewater services, they have a duty to advise the Local Planning Authority of this potential risk to ensure the longevity of the surface water drainage system and the service it provides to people. They also wish to minimise the risk of a sustainable drainage system having a detrimental impact on the public sewer network should the two systems interact. Therefore, UU require a condition be imposed regarding a management and maintenance regime for any sustainable drainage system that is included as part of the proposed development.

10.14.19. In terms of Water Supply, UU advise that substantial reinforcement of their water network would be required to serve this large development and the applicant would be required to pay a contribution.

10.14.20. If the applicant intends to obtain a water supply from United Utilities for the proposed development, they strongly recommend they engage at the earliest opportunity. If reinforcement of the water network is required to meet the demand, this could be a significant project and the design and construction period should be accounted for.

10.14.21. In terms of United Utilities' Property, Assets and Infrastructure, they advise that water mains cross the site. As they need unrestricted access for operating and maintaining them, UU would not permit development over or in close proximity to the mains. UU require an access strip as detailed in our 'Standard Conditions for Works Adjacent to

Pipelines'. The applicant must comply with the 'Standard Conditions' document and this should be considered in the final site layout, or a diversion may be necessary. Unless there is specific provision within the title of the property or an associated easement, any necessary disconnection or diversion required as a result of any development will be at the applicant's expense. If considering a water mains diversion, the applicant should contact United Utilities at their earliest opportunity as they may find that the cost of mains diversion is prohibitive in the context of their development scheme. The Water Industry Act 1991 affords United Utilities specific rights in relation to the maintenance, repair, access and protection of our water infrastructure;

 Sections 158 & 159, outlines the right to inspect, maintain, adjust, repair or alter our mains. This includes carrying out any works incidental to any of those purposes. Service pipes are not our property and we have no record of them.

 Under Section 174 of the Act it is an offence to intentionally or negligently interfere with any resource main or water main that causes damage to or has an effect on its use or operation. It is in accordance with this statutory provision that we provide standard conditions to assist developers when working in close proximity to our water mains. Both during and post construction, there should be no additional load bearing capacity on the main without prior agreement from United Utilities. This would include earth movement and the transport and position of construction equipment and vehicles.

Where United Utilities' assets exist, the level of cover to the water mains and public sewers must not be compromised either during or after construction.

It is the applicant's responsibility to investigate the possibility of any United Utilities' assets potentially impacted by their proposals and to demonstrate the exact relationship between any United Utilities' assets and the proposed development.

10.15. **Climate Change**

10.15.1. Chapter 17 identifies and assesses the likely effects of the proposed development on climate change and how to minimise the impact through mitigation. The climate change assessment is in two parts, as follows:

<u>Assessment of Impacts from Emissions</u>

The ES concludes that the project is based on a number of high-level assumptions, the proposed development's absolute emissions with mitigation

<u>Assessment of Climate Resilience</u>

The ES concludes that it will not be possible to eliminate every risk associated with climate change but through intelligent design, preparation and responsible construction, these risks will be minimised.

10.15.2. Discussion and recommendations have detailed reducing these risks in key areas such as overheating, flooding and extreme weather, which has taken into consideration not only the health and safety of the users of the proposed development, but the resilience of the proposed development itself.

10.15.3. It is assumed that with the mitigation each individual technical discipline has suggested throughout the ES Chapters, there will not be a significant impact on the development as a result of climate change in the long-term.

10.15.4. The council declared a climate Emergency in July 2019 with a goal to ensure the borough was carbon neutral by 2030. The UK government have similarly made a declaration using 2050 as a target. Transportation accounts for around 26% of CO2 emissions while domestic properties account for around 40%. Environmental Health have advised that it is "*vital that in order to achieve both the Council's aim of net zero emissions by 2030 and the government's aim by 2050 the housing market needs to be decarbonised. The proposed development, one of the biggest to be seen in South Ribble which will take until*

2035 to be completed suggest measures that will reduce the current CO2 emission rate by 15% a far cry from what is really required.
The scheme, given its size is ideally suited to improved carbon reduction measures such as a central heating system (Ground source heat pumps), air source heating improved green energy production through the use of solar panels on every property something given the scale of the development will reduce installation costs and provide a much needed source of renewal power, and improved efficiency within the units.
No mention has been given to the reduction of water usage within the development, a lower designed water usage per property would result in savings for the developers on connection costs.

10.15.5. In summary, Environmental Health considered that, given the scale, duration and prominence of the development, the applicant has not provided a sustainable or appropriate development proposal in line with the basic requirements of the National Planning Policy Framework. Therefore, Environmental health would be minded to object to the development on these grounds.

10.16. **Air Quality and Dust**
10.16.1. Chapter 13 deals with Air Quality and Dust and concludes that the proposed development has the potential to cause air quality impacts at sensitive locations. As such, the Air Quality Environmental Statement Chapter was required to quantify pollutant levels across the site, consider its suitability for the proposed end-use and assess potential impacts as a result of the development for two development scenarios.

10.16.2. It advises that, during the construction phase of the development there is the potential for air quality impacts as a result of fugitive dust emissions from the site. These were assessed in accordance with the IAQM methodology. Assuming good practice dust mitigation measures are implemented through a CEMP, the residual significance of potential air quality impacts from dust generated by earthworks, construction and track out activities was predicted to be negligible and therefore not significant.

10.16.3. Dispersion modelling was undertaken in order to quantify pollutant concentrations at the site and to predict air quality impacts as a result of road vehicle exhaust emissions associated with traffic generated by the development. Results were subsequently verified using monitoring results obtained from SRBC.

10.16.4. The dispersion modelling results indicated that pollutant levels at sensitive locations across the site were below all relevant AQOs. The location is therefore considered suitable for the proposed end-use without the inclusion of mitigation methods to protect future users from poor air quality. Predicted impacts on existing sensitive receptors as a result of operational exhaust emissions were predicted to be negligible. The overall significance of potential impacts was determined to be not significant, in accordance with the EPUK and IAQM guidance.

10.16.5. The details were considered by Environmental Health who advise the following:
"*The air quality assessment (AQA) is based on the current traffic assessment and distribution of traffic. It is understood that Lancashire Highways have some concerns over this assessment. Should the traffic assessment not be accepted by the Highways Authority or should any amendments be required which alter the proposed traffic distribution from that on which the air quality assessment is based, then the air quality assessment is no longer valid and will need to be reviewed.*

Air quality has a significant impact on public health, both in terms of mortality and quality of life. It is therefore important that action is taken to minimise the impacts of poor air quality and this is identified within the National Planning Policy Framework.

South Ribble preferred methodology when assessing air quality impacts from developments seeks to minimise harmful pollutant emissions and avoid significant impacts while recognising that any development which introduces additional traffic or point source emissions will adverse impact on air quality. The methodology tailors assessment and mitigation requirements to the specific characteristics of a site considering the nature, scale and location of the development.

The submitted air quality assessment methodology has been undertaken in line with the Councils low emissions strategy methodology. This has identified a damage cost on air quality for the development of £252,046. Some mitigation measures have been suggested but these include standard requirements for all developments, and some measures that are required by other regimes e.g. by the Highways authority. Double counting measures is not acceptable.

No detail has been provided as to the potential 'improvement' suggested within the mitigation measures for example improved pedestrian links to public transport stops – what improvements above the norm are being suggested? No suggested costs associated with these works have been identified and therefore it is impossible to say how much of the £252,046 damage costs have been mitigated.

While the air quality report methodology and conclusion are acceptable, the report as a whole is not as sufficient mitigation has not been identified to make the development acceptable.

The report fails to address the damage to be caused to air quality and as such fails to meet the requirements of the NPPF, through mitigating harmful impacts.

However, the assessment has been based on 0% of HDV traffic, given the proposed use of the development – i.e. school, shops, community centre, elderly accommodation, there is likely to be some HDV traffic associated with deliveries, waste removal etc. Although the HGV is likely to be very small."

10.16.6. Environmental Health object to the applications on the grounds of inadequate information to address air quality impacts. It is officers view that, with the submission of further details on mitigation measures to off-set the damage cost of £250K, the development could be acceptable. Measures so far proposed are either a standard requirement and therefore cannot be included as mitigation or are basic highway requirements. Measures that can be included are improved pedestrian pathways to encourage walking; improved and segregated cycle paths; provision of storage and support for cycle purchase, bike hire schemes. These measures would also tie in with PROW comments in the PROW section of this report.

10.17. **Crime and Disorder**

10.17.1. The Police ALO recommend that the police preferred security specification Secured by Design (SBD) certification is achieved for all development*. "A development of this size and scale has the potential to create additional demand on local policing resources, therefore in order to create a safe and secure environment crime prevention strategies should be integrated into the design of the development at the earliest opportunity. Secured by Design certified developments have been proven to experience less vehicle crime, burglary and criminal damage. Further details on Secured by Design including the commercial and domestic 3D interactive design guides, application forms and development*

guidance documents such as the New Schools brochure can be found at www.securedbydesign.com. The applicant can also be signposted to the Lancashire Constabulary Designing Out Crime Team for further bespoke design advice at alo@lancashire.police.uk.

Security measures should be incorporated into this development in accordance with Section 17 of the Crime and Disorder Act 1998 (as amended by the Police and Justice Act 2006) Without prejudice to any other obligation imposed on it, it shall be the duty of each authority to which this section applies to exercise its various functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area (including anti-social and other behaviour adversely affecting the local environment); and (b) the misuse of drugs, alcohol and other substances in its area and reoffending in its area."

10.18. **Archaeology and Heritage**

10.18.1. The Historic Environment Team at Lancashire County Council comment that Chapter 8 of the Environmental Statement proposes that "*A phased approach would be adopted to mitigate any potential impacts during the construction phase to currently unknown archaeological remains that may be located within the site. The first phase would consist of archaeological evaluation via geophysical survey and trial trenching within areas of the site subject to construction works*." The Historic Environment Team is of the opinion that such an approach would be appropriate given the archaeological potential of the site, and should the LPA be minded to grant planning permission, such works are secured by condition.

10.19. **Waste Management**

10.19.1. A Waste Management Strategy has been submitted which advises that the proposed developments will follow the principles of the Waste Hierarchy eliminate, reduce, reuse, recycle, other recovery and disposal. It advises on how this will be achieved during the construction phase, including demolition and the operational phase which includes household and commercial waste.

10.19.2. In their consultation response, The Environment Agency provide technical advice on the use and generation of waste. They comment that, if waste is to be used on site, the applicant will need to ensure they can comply with the exclusion from the Waste Framework Directive (article 2(1) (c)) for the use of 'uncontaminated soil and other naturally occurring material excavated in the course of construction activities, etc…'. Meeting these criteria means the material is not waste and permitting requirements do not apply. Where the applicant cannot meet the criteria, they will be required to obtain the appropriate waste permit or exemption from the EA.

10.19.3. A deposit of waste to land will either be a disposal or a recovery activity. The legal test for recovery is set out in Article 3(15) of Waste Framework Directive as: *any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.*

10.19.4. Non-waste activities are not regulated by the EA, however the developers will need to decide if materials meet End of Waste or By-products criteria as defined by the Waste Framework Directive.

10.19.5. The EA advise that developer must apply the waste hierarchy as a priority order of prevention, re-use, recycling before considering other recovery or disposal options.

10.20. **Infrastructure Delivery**

10.20.1. An Infrastructure Delivery Schedule (IDS) is submitted as Appendix VI to the Supporting Planning Statement. The purpose of the IDS is to identify the key infrastructure required to facilitate development of the site, the mechanism to secure it, and an indicative delivery program to meet the requirements of Policy C1. The IDS includes details of the Key Infrastructure proposed by the developers as follows:

- Two form entry primary school
- Financial contributions towards education
- New Local Centre
- Vehicular access onto A582
- Vehicular access onto Bee Lane
- The Spine Road
- Off-site highway improvements to the Leyland Road/Bee Lane roundabout junction
- Financial contributions to improvements to bus service
- Financial contribution towards Sport and Recreation
- Financial contribution towards Penwortham Community Centre
- Financial contribution towards health infrastructure

10.20.2. The infrastructure can be secured through a combination of planning conditions, S106 agreement S278 Agreement, S38 agreement or CIL payments.

10.20.3. A Section 106 Agreement could be entered into to secure the provision of on-site affordable housing provision in terms of type and tenure; the management and maintenance of the on-site public open space; Equipped Areas for Play; off-site Playing Pitches; the school site; the Local Centre; Health care provision and other community facilities and the required PROW improvements. However, until officers know the full ask in terms of highway infrastructure/financial contributions, we are unable to reach meaningful conclusions in respect of the provision of infrastructure and financial contributions in the totality.

10.21. **CIL/City Deal**

10.21.1. The Pickering's Farm site is the largest residential site within South Ribble and is a significant contributor to the City Deal model. The application site is identified as the 'South of Penwortham/North of Farrington Strategic Location in Policy 1 of the Central Lancashire Core Strategy and is therefore a focal point for growth and investment in the statutory development plan. Policy C1 of the South Ribble Local Plan allocates the 'Pickerings Farm' site for residential-led development, subject to the completion of a Masterplan for the site.

10.21.2. The applications submitted comprises of an outline proposal for up to 920 and 120 dwellings respectively on the site, along with a mixture of uses including a local centre, employment and community uses, a primary school and green infrastructure. Given the statutory development plan allocation for the site, the principle of the development proposed would appear to comply with the development plan.

10.21.3. Preston City Council fully supports the proposals in the interests of delivering the strategic priorities for growth set out within the Central Lancashire Core Strategy. Additionally, Preston City Council consider this development to be a significant part of the Preston, South Ribble and Lancashire City Deal.

10.21.4. In more general terms though, the developers want to off-set CIL against the provision of the Spine Road. However, the Spine Road is not the envisaged CBLR and would need to be constructed to serve the new residential development and it is

officers view that this should not be at the expense of CIL payments and do not support this proposal

11. Conclusion

11.1 It is officers view that there is a significant amount of information and supporting evidence that would be required before officer support to these applications resulting in a position whereby a positive recommendation could be provided.

11.2 LCC Highways have been quite clear where evidence falls short in their consultation response and it is considered that there are four grounds of refusal on highway matters:

- Modelling - A new Paramics model has been built using a base year of 2021. Due to the impact of the Covid-19 pandemic it is not considered that this is a representative base model year.

No individual junction modelling has been included within the TA. The TA does not report the operational performance of the access junction to the site from the Bee Lane bridge, and the junction with the B5254 Leyland Road.

The modelling results are selective and only report two of the 6 scenarios in the main body of the TA report.

Where results are reported as adverse, in terms of increased delay, there is no justification or rationale provided as to why this does not represent an issue to the operational performance of the network.

- Lack of supporting evidence - Overall concern from LCC is that they are unable to support the proposals due to the lack of supporting evidence that they are able to accept. They cite a lack of engagement during the scoping phase as a reason for this and offer to engage with the applicant in addressing concerns and agreeing the scope and composition of technical supporting evidence.

- Bee Lane bridge - The use of the Bee Lane bridge without necessary physical improvements required to provide access for a further 40 dwellings, as well as an increased number of pedestrians and cyclists, is unsuitable.

- Cross Borough Link Road - The TA refers to more about how the development has been designed in such a way to accommodate the future alignment and development of this route and avoids any implication that the development would benefit from this infrastructure development, or that it might be a requirement to enable the development to come forward.

This together with the lack of an agreed Masterplan for the comprehensive development of the site and a phasing and infrastructure delivery schedule mean the proposals are contrary to Policy C1.

Additionally, there are a number of other matters which need to be addressed, as follows:

Lack of off-set against Air Quality damage costs
Lack of 10% Biodiversity Net Gain
Public Rights of Way
Sport England

As such, the application is recommended for refusal.

Reasons for Refusal

1. It has not been demonstrated that the modelling methodology applied within the submitted Transport Assessment is acceptable. As such it has not been demonstrated that the proposed development would not have a severe adverse impact on the local highway network. The proposal is therefore contrary to the requirements of para. 111 of the NPPF, Policy 17 of the Core Strategy and Policy G17 of the South Ribble Local Plan.
2. It has not been demonstrated that the scoping and composition of technical supporting evidence of the submitted Transport Assessment is acceptable. As such it has not been demonstrated that the proposed development would not have a severe adverse impact on the local highway network. The proposal is therefore contrary to the requirements of para. 111 of the NPPF, Policy 17 of the Core Strategy and Policy G17 of the South Ribble Local Plan.
3. The proposed improvements to the Bee Lane bridge are not considered to be sufficient for the additional traffic, as well as increased number of pedestrians and cyclists, resulting from the development prejudicing highway safety and pedestrian safety. The proposal is therefore contrary to the requirements of para. 111 of the NPPF, Policy 17 of the Core Strategy and Policy G17 of the South Ribble Local Plan.
4. The application fails to provide adequate certainty that the section of the Cross Borough Link Road within the site, together with the necessary physical upgrading works to the Bee Lane bridge, will be delivered. The proposal is therefore contrary to the requirements of Policy A2 of the South Ribble Local Plan.
5. Policy C1 of the South Ribble Local Plan requires an agreed masterplan and design code for the comprehensive development of the site. The masterplan has not been formally agreed by South Ribble Council and the version submitted with the two applications does not meet the policy requirements.
6. Policy C1 of the South Ribble Local Plan requires the submission of a phasing and infrastructure delivery schedule and an agreed programme of implementation. The submitted documentation provides insufficient detail on how the site will be delivered and no detailed phasing plan has been submitted and no programme of implementation has been agreed. Therefore, the scheme is contrary to Policy C1.
7. Policy A2 of the South Ribble Local Plan seeks to ensure delivery of the Cross Borough Link Road through the major development site at Pickering's Farm. The two applications together with the Masterplan do not provide a firm commitment for the delivery of this key piece of infrastructure necessary to support the scale of development proposed. The scheme is therefore contrary to Policy A2
8. Inadequate information has been provided to address air quality impacts and insufficient mitigation has been identified to make the development acceptable. The proposal is therefore contrary to Paragraphs 185 and 186 of the NPPF and Policy 30 of the Core Strategy
9. The proposals will generate additional demand for sporting provision, and it is not clear how this would be addressed in the current planning applications. Nor is it clear how the concept of active design would be achieved in the scheme to deliver an active, healthy community and is therefore contrary to Policies G10 and G11 in the South Ribble Local Plan and Paragraph 100 of the NPPF

APPENDIX 1

KBLR Review of the Lanes planning application Transport Assessment by Vectos.

Planning application 07-2021-00866-ORM and 07-2021-00867-ORM

The Vectos TA is split into two parts in the planning application documents library. In this review the first part of the TA with PDF ref number 226184 is referred to as TA1, and the second part with PDF reference number 226183 is referred to as TA2.

1 Executive Summary.

- The local primary schools in the development catchment are currently under pressure with four of the five schools listed by Vectos at or close to capacity. Committed development demand in the catchment will take any remaining capacity resulting in an effective absence of any primary school places within a two mile radius of the site at the onset of the proposed development. It is estimated that the site will have a population of 523 primary school children.

- Secondary schools in the catchment are also currently under pressure with two of the four listed by Vectos currently exceeding capacity. Of the remaining two with capacity, committed developments will reduce this such that only one secondary school, Penwortham Priory, 3.8 km from site, is likely to have any capacity at the onset of the proposed development. This will severely curtail parent choice in the locality and drive demand further afield. It is estimated the site will have a population of 307 secondary school children.

- No attempt has been made by Vectos to establish the development demographics to understand the levels of demand for local education and health service provision. In addition it appears that no account has been made of the need for formal pre-school facilities, and how this will impact trip demand. It is unlikely that there will be sufficient local pre-school facilities to cater for the demand of up to 493 pre-school children.

- This lack of local Education infrastructure will increase car dependency, and is an illustration of the poor quality of the Vectos transport Assessment background research, especially as a key strand of their proposition is that the numerous local schools "available" in the catchment will reduce car trip demand.

- No account has been made by Vectos in their trip analysis for the provision of 30% affordable/social housing which can have significant impact on demographics and trip demand.

- The committed developments and the proposed development will add over 10,000 people to the local population, with a significant proportion being under 5's and over 65's. This will place local GP and health facilities under severe strain. It is estimated that an additional 5 GP's plus buildings and support staff will be required to provide for this additional population.

- It is unclear if the responsible authorities are aware of the magnitude of the problem facing the region in terms of healthcare and education provision, and what planning has taken place to ensure such essential services are made available into the future..

- Because Vectos have not accounted for population demographics that are specific to new developments of this scale, nor the adequacy of local social infrastructure to support such demographics, their estimation of trip demand and modal split is woefully inadequate.
- Using a trip demand based on likely site demographics it has been found that the Vectos estimation of trips from site has been underestimated by 78% for the am peak and by 61% for the pm peak. This leads to significantly underestimated traffic delays on all local routes and the A582 in particular
- There appears to be systemic errors in the Vectos analysis, for example for all categories of trip eg education, commuting and leisure there is a significant disparity between total arrivals and departures. This is particularly perplexing for education trips where site arrivals and departures by car are 238 and 330 respectively over the standard 12 hour evaluation period, with the implication that approximately 100 children are departing by car in the morning and not returning home after school.
- Other worrying discrepancies can be found in their methodology for model journey time validation shown in the Vectos TA2 tables 17/18 and 19. It has been found that on some of the key routes the observed journey time from Tom Tom data, used to validate model predictive results, does not accord with journey times indicated from Google maps, as significant errors are apparent, with Tom Tom appearing to significantly underestimate journey time at peak hours.
- It has also been found that the Vectos trip rates assigned to committed developments has been underestimated by 30% for the peak hours. This results in a significant underestimation of traffic congestion impacts, making the contribution of the planned development even more severe.
- The estimated two way traffic flow on the A582 from the committed development and the Lanes will add 1,763 two way car trips at the am peak to an observed daily two way am peak traffic flow of 2,125 measured in 2018. The Lanes will be responsible for 888 of these additional two way trips. This is a huge increase in peak traffic flow.
- The committed development and the Lanes will add 11,753 daily average traffic flow to the currently measured (2019) value of 18,872 on the A582. The total daily flow will therefore increase to 30,625. The lanes will be responsible for contributing 5,920 of these additional two way daily trips. Note the LCC congestion reference two way flow for the A582 is 22,000.
- The impact of the trip rate underestimation leads to significantly increased journey times on key routes. In particular for the A582 from the Tank Roundabout to the Penwortham Triangle (Route 1). For example at the am peak Vectos estimate that committed developments will add 6.8 minutes to the journey time, however using more realistic trip rates estimated in this analysis results in a journey time increase of 8.8 minutes.
- For the same route for the scenario of committed developments plus the Lanes Vectos estimate a delay of 8.5 minutes however use of more realistic trip rates estimated in this analysis leads to a journey time increase of 15.1 minutes.
- Similar patterns of journey time increase are observed for the pm peak. Given that under current road conditions Google maps predicts an average peak hour journey time of

between 9 and 11 minutes, these predicted journey time increases will be catastrophic for the region.

- It should also be noted that congestion on the B5254 will also be catastrophic as a result of committed development and the Lanes. The data from Vectos TA2 table 7.5 shows that the delays resulting from committed developments will add 12.8 minutes to pm peak journey times, and the addition of the Lanes will increase this to 15.3 minutes. Similar delays are anticipated for the am peak The actual delay is likely to be far higher, as Vectos significantly and consistently underestimate trip demand. It is believed that these delay figures will increase to 17 and 20+ minutes respectively. Such delays will effectively render any bus service using this route non-viable

- Much more concerning is the impact that such delays, along the B5254 corridor and the A582, will have on the AQMA 3 Lostock Hall, AQMA 4 Bamber bridge and the AQMA 1 in Penwortham. The air quality in these locations is some of the worst in the UK. The anticipated increases in traffic volume as a result of committed development and this proposed development, combined with the increased congestion, will significantly worsen air quality leading to higher levels of illness and premature death in the local population. This will increase costs for the NHS.

- Widening the A582 will not provide a solution as it is the numerous major junctions located along the route that determine average traffic speed. Dualling parts of the road will have little impact, and parts of the route subject to the worst congestion are currently dualled with key junctions already upgraded. Providing an additional traffic light controlled junction to access to the Lanes will further weaken the case for A582 widening.

- The A582 widening is also prohibitively expensive (£120+ million) and is likely to provide very poor taxpayer value for money, so DfT funding through the MRN programme appears unlikely. Funding from the Preston City Deal is highly unlikely as the infrastructure programme is in considerable deficit (minus £100 million) and the poor Governance and financial management of the programme is the subject of a recent complaint to the Local Government Ombudsman.

- The economic impact of the traffic delays on the A582 resulting from the committed development and the Lanes proposal has been quantified and the results are sobering. If the impact of delays on cars and HGV traffic is accounted for, and using Webtag recommended values of time, it is estimated that the committed development delays will cost the local economy £6.89 million per year.

- If the contribution to traffic delays from the Lanes development is added in, then the cost to the local economy rises to £12.39 million per year, with £5.5 million per year directly attributable to the Lanes. This cost penalty swamps any financial benefits listed in the Development supporting statement.

- The delays attributable to the committed developments and the Lanes significantly reduces the average speed on the A582, and therefore fuel efficiency drops. This reduction in fuel efficiency and increase in traffic volume results in additional CO2 emissions and this annual increase in emissions of CO2 can be quantified.

- The CO2 emission resulting from committed development traffic delays is 4,627 tonnes per year. If the delays from the Lanes development is added in this results in an emission

of 8,003 tonnes CO2 per year. In 2019 South Ribble produced 243,200 tonnes of CO2 from all transport sources. South Ribble has declared a climate emergency yet committed developments plus the Lanes could add 3.3% to this total.

- It should be noted that delays over the whole local road retwork impacted by this development will generate significantly greater economic cost and CO2 emission levels, with CO2 levels likely to exceed 10,000 tonnes per year.
- If South Ribble plan to offset the 8,003 tonnes additional CO2 emission rate it will need to plant 381,000 trees.

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Section 3 Development demographics, 1100 homes.

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Section 5 Health facilities in the catchment.

Section 6 Development Trip assessment and peak demand.

Section 7 Committed development trip assessment and peak demand

Section 8 Impact on the A582,for the 1,100 home development plus committed development.

Section 9 Revised estimates of delay time and economic impact on the A582

Section 10 Traffic delay, impact on CO2 generation A582

Section 11 Conclusions

Section 12 References

2 Introduction.

Following the submission of the two applications to SRBC in July 2021 the supporting Transport Assessment, Appendix 12.1 of the Masterplan has been reviewed. This Appendix is provided in the planning portal as a split document, with the first part referred to as TA1 and the second part referred to as TA2. The Transport Assessment was undertaken by a third party consultant Vectos.

In order to verify the conclusions reached in the TA document an analysis from first principles has been undertaken. All supporting data used in this analysis has been obtained from open source references. In particular a "Population Forecasting Study for New Dwellings" undertaken by Cognisant Research for Northamptonshire Country Council provides extremely useful data. Reference is also made to a report "New Housing Developments and the Built Environment" commissioned by Cambridgeshire and Peterborough NHS and Cambridgeshire County Council. Both reports provide data on population demographics appropriate for large new housing developments.

The approach in this analysis is to firstly evaluate population demographics likely to arise from the committed developments in the area, and from this specific planning application.

From the resulting demographics a review of the supporting infrastructure was made in particular the availability and capacity of local schools and the provision of GP services.

From an evaluation of demographics the likely trip generation rates are calculated for each sector of the population. Use is made of NTS reports and other surveys to profile the modal split for each sector.

For the purpose of this analysis the distribution of trips throughout the twelve hour analysis period was adopted as for the Vectos analysis.

The impact of this revised trip profile was estimated on the assumption that traffic delay time is directly proportional to trip rate and traffic flow.

The resulting revised delay times and anticipated traffic flows in particular for route 1, which is the A582 from the Tank roundabout to the Penwortham Triangle, have been used to evaluate a traffic delay cost attributable to the dependent developments and the proposed planning application.

Value of time metrics as proposed by Webtag 2014 for the evaluation of road schemes have been employed to monetise resulting delays.

The estimated delays and traffic flows have also been used to calculate CO2 emission rates directly attributable to committed developments and the planning application. Open source literature providing data on vehicle fuel efficiency as a function of vehicle speed has been used in this analysis.

Examination of the Vectos methodology has resulted in some worrying inconsistencies. In particular

- Failure to supply any data on how the various scenarios studied impact on the traffic flow values on the local roads network in particular for the am and pm peak hours.
- Failure to evaluate the development site demographics, leading to gross underestimation of commuting, education and leisure trips.
- When the multi modal trip demand data given in tables 6.5, 6.7, 6.8 and 6.9 of TA1 is summed for the full twelve hour analysis period total arrivals and departures do not align. This is particularly worrying for education trips, given in table 6.8, where over twelve hours there are 330 trips departing from the application site by car (1,100 homes) and only 238 trips returning. For table 6.9 detailing modal split for leisure trips 873 trips arrive on site as a passenger, and 48 depart? This appears to be a systemic error in the model.
- The journey time validation data given in table 17 and 19 for routes 1 and 3 appear to show a significant difference between observed journey times as indicated and derived from TomTom output, and the journey times when observed by Google maps? With the Tom Tom data used by Vectos appearing to significantly underestimate "observed" peak hour journey time when compared with Google maps.

- The assumption made by Vectos that 50% of all leisure trips occur within the planning application site and are therefore not accounted for is not supported nor justified.
- The assumption is made that there are many local schools in the area within walking distance of the site, thus reducing car dependency, yet no attempt is made to establish if any of the local schools will have the capacity to accommodate for the anticipated site demand.
- It is assumed that the local bus corridor along the B5254 will provide a regular and frequent service, thus reducing car dependency . This road corridor is heavily congested at peak periods and new and permitted development in the vicinity will make congestion worse. The reliability of the service is questionable and it is not uncommon for bus services serving Preston to be withdrawn because chronic car dependency and the resulting congestion makes the timetables unreliable. Several examples are given in Reference 1

This analysis has found that the Vectos Transport assessment is deeply flawed and grossly underestimates the adverse impacts of the Lanes development.

3 Development Demographics; 1100 homes

Reference 2 provides data on population demographics as a function of property type and bedroom number. Data is also provided for the demographic impact of social housing. The data set includes a range of new developments built in Northamptonshire.

For the Lanes it is assumed that the property mix is 10% two bedroom, 50% is three bedroom and 40% is four bedroom.

It is stated in the Development Supporting Statement Document paragraph 9.2 that the development has a working age population of 1850 (16+ to 64).

Reference 2 also provides a profile of child age group per dwelling per bedroom number .
Table 3.1 Childen by age distribution as a function of bedroom number

Number of bedrooms in dwelling	1	2	3	4
Pre School Children	0	0.30	0.32	0.34
Primary School Children	0	0.13	0.32	0.37
Secondary School Children	0	0.03	0.17	0.22
Post 16's	0	0.03	0.07	0.09

Reference 2 also provides a profile of child age per dwelling per bedroom number for social housing.

Table 3.2 Children by age distribution as a function of bedroom number for social housing

Number of bedrooms in dwelling	1	2	3	4

Pre School Children	0	0.52	0.63	0.92
Primary School Children	0	0.19	0.83	0.58
Secondary School Children	0	0.04	0.41	1.00
Post 16's	0	0.05	0.19	0.58

Assuming the same housing profile as above namely 10, 50 and 40% for 2, 3 and 4 bedrooms, and assuming the development consists of 30 % social housing the number of children and their age profile can be determined.

Firstly the Child profile was calculated for the 70% non-social housing totalling 0.7x1100=770 dwellings.

Table 3.3 Child age group distribution non-social housing

Number of bedrooms in dwelling	1	2 (10%)	3(50%)	4(40%)	Total by age group
Pre School Children	0	23	123	104	250
Primary School Children	0	10	123	114	247
Secondary School Children	0	2.3	65	68	135.3
Post 16's	0	2.3	26.5	28	56.8
Totals by bedroom number	0	38	338	314	

The profile is then calculated for the social housing totalling 0.3 x 1100=330 dwellings Table 3.4 Child age group distribution social housing

Number of bedrooms in dwelling	1	2 (10%)	3(50%)	4(40%)	Total by age group
Pre School Children	0	17.2	104	122	243.2
Primary School Children	0	63	137	76	276
Secondary School Children	0	13	68	132	213
Post 16's	0	17	32	76	125
Totals by bedroom number	0	110	341	406	

It is therefore concluded that the number and age profile for child occupants is as follows

Totals by age grouping

Pre-School = 23+123+104+17+104+122 = 493

Primary School = 10+123+114+63+137+76 = 523

Secondary School = 2.3 +26.5+65+13+68+132 = 307

Post 16's = 2.3+26.5+28+17+32+76 = 182

Total number of children = 1505

Total number of children excluding post 16's =1323.

Total number of occupants 0-64 years of age =1323+1850=3173

To establish the population of 65+ age group Reference 3 provides age demographics for a number of new developments in Cambridgeshire. It indicates that the population of 65+ residents is approximately 13% of the development population. This yields a figure of 470 residents over 65, providing the following measure of total population for a 1,100 home development with 30% social housing.

16-64 age =1850

Pre school = 493

Primary School = 523

Secondary School=307

65+ age population =470

Total population estimate = 3,643

For the same development with no social housing the total population reduces to 3,203

For a similar development of 1,350 dwellings and 30% social housing the population increases to

(1350/1100) x 3643 = 4,481

4 Schools in the catchment

The Vectos TA claims that a modal shift in travel will occur as many education facilities are located within walking distance of the development, and a large proportion of education trips will be on foot.

In particular a number of schools were listed as being in the immediate catchment. In table 2.2, page 15, Vectos TA 1 is a list of primary and secondary schools in the catchment.

Considering the primary schools first, the following information has been found by accessing the school websites

Primary School claimed distance from site, pupil numbers and capacity

Table 4.1 Local primary schools distance from site, current pupils and capacity.

	Pupils	Capacity	Difference
Kingsfold Primary; 1080m	120	210	90
Our Lady and St Gerrards, 1190m	343	378	35
Penwortham Broad Oak ,1510m	187	210	23
Middleforth Primary, 1900m	208	210	-
Lostock Hall Community Primary, 2400m	425	420	-
Nominal spare capacity			148

Permitted developments in Longton, Hutton, Hoole, Howick and new Longton <1 mile away =127

Permitted developments at the Gas Works and Penwortham Mills <1.5 miles = 633

Permitted developments in Faringdon/Croston Rd/Moss lane ~ 2 miles = 600

Source Vectos TA and Reference 4

Assuming that these permitted developments do not include social housing the primary school demand is anticipated to be (127+633+600)x247/770=436 primary school places.

Unless there is a radical and immediate primary school building programme there appears to be insufficient primary schools to accommodate the permitted development demand. It appears likely that there will be ***no available primary school capacity*** for "the Lanes" within a 2 mile radius for the foreseeable future as the Lanes at 1100 dwellings requires 523 primary school places. It is not clear if the responsible authorities are aware of this situation, and what provisions if any have been made. The infrastructure delivery plan does not identify when the two form entry primary will be completed, however the TA assumes places are available when and if the site is extended to 1350 homes.

Table 4.2 Secondary School claimed distance from site, pupil numbers and capacity

	Pupils	Capacity	Difference
Penwortham Girls High School 2700m	769	744	-
Lostock Hall Academy 3000m	612	800	188
All Hallows Catholic High School 3000m	900	890	-
Penwortham Priory Academy 3800m	747	1152	405
Nominal Spare capacity			593

Permitted developments in Longton, Hutton, Hoole, Howick and new Longton <1 mile away =127

Permitted developemts at the Gas Works and Penwortham Mills <1.5 miles = 633

Permitted developments in Faringdon/Croston Rd/Moss lane < 2 miles = 600

Source Vectos TA and Reference 4.

Assuming that these permitted developments do not include social housing the Secondary school demand is anticipated to be (127+633+600)x135/770=238 Secondary School places.

Nominal Secondary School capacity remaining after accounting for permitted developments=355 with a Secondary School place demand from the Lanes of 270 places.

It also appears that parents will effectively have only one "local" Secondary School with any remaining capacity namely Penwortham Priory, this will severely limit parent choice. This may also be a severe constraint to families from some ethnic or faith backgrounds.

Nursery/Pre-School Provision.

It appears that this key educational requirement has not been considered by Vectos in their estimation of Trip generation yet for New Housing developments this is a key consideration. For the Lanes at 1100 dwellings it is estimated that there will be 493 pre-school age resident children.

It is unclear how much local nursery capacity will be available locally for the Lanes development. Reference 5 indicates that 62% of nursery age children are in formal childcare, therefore there is a demand for 306 nursery places within the catchment. It is unclear what if any planning provision has been made for this additional demand.

5 Health facilities in the catchment.

The Lanes development TA mentions one local medical facility at Kingsfold, 1500m from site. For developments containing no social housing the average weighted ratio of occupants to dwelling is 2.78. Reference 2

On this basis in the catchment there are 2367 committed developments with a population of 6580.

The Lanes population will add a further 3643 people to this total, raising the local population to in excess of 10,000. This is materially significant when compared with the current population of South Ribble which is ~110,000.

As this expansion of housing far exceeds the natural population demographics/growth for South Ribble as detailed in the evaluation of the Standard method for housing determination, it appears likely that a significant proportion of this population will be imported from outside of the region, and not displaced from within. This appears to be social engineering on a major scale.

A significant proportion of this population will be under 5's and over 65's which will impose a

significant additional demand on local healthcare provision.

The average number of patients per GP has risen to 2087 in 2019 Reference 6. In South Ribble and Chorley in 2013 it was 1712 patients per GP Reference 7. On that basis it is likely that and additional 5+ GP's and supporting infrastructure including buildings and support staff will be needed to meet the future population demands that result from committed developments and the Lanes. Currently it appears that there is little spare capacity within the local health system to meet existing demand with GP numbers per head of population being lower than the average for England, namely 1315 patients per GP in 2013/14 Reference 8

It is not clear if this additional demand for health care provision is being addressed, nor is it clear that local health care providers are aware of the extent of this developing problem.

6 Development Trip Assessment and peak demand.

6.1 Assessment of Commuting Trips.

The population in the 16-64 age range was reported as 1850 by Taylor Wimpey in the Supporting Statement. Reference 9 employment statistics for South Ribble April 2020 to March 2021 indicate that 81% of the working age population are economically active.

Therefor it is concluded that 1499 residents in the age group 16-64 are working. The population of 65+ residents is 470.

The percentage of this 65+ age group in work is assumed to be 18%. Reference 9

The number of persons assumed to be working in this group is assumed to be 85.

Therefor the total site population assumed to be in work is 1499 + 85 = 1584 .

Vectos apply a 5% factor to this total to account for home working and inter-site working.(para 6.14 TA 1).

This reduces the working population to 1584 x 0,95 =1505 .It is assumed that each person undertakes a return trip to their place of work eg one departure and one arrival from/to home on site.

To assess the commuting transport mode by car/van Vectos apply a weighted percentage to account for commuting distance. They conclude that 43% of commuting trips are less than 5 km and 57% are >= 5 km . For the shorter commutes they claim 61% of trips are by car and van and for >=5 km the proportion increases to 70%.

It is believed that the Lanes and other similar large developments located close to the SRN are designed to be "dormitory" housing developments, with a significant proportion of residents working outside the South Ribble boundary. As explained previously the committed developments in the region far exceed the local housing demand and that a significant majority originate and work from outside the local boundaries.

This is also inferred by the percentage of commuting trips that depart between 7 and 8 am. This is evidenced in table 6.5, page 46, Vectos TA1 where departures by car are at a

maximum between 7-8am with 185 departures compared with 123 departures in the following hour. A typical 5km commute will take 10 minutes.

As a result we have applied a more realistic weighting and assume that 65% of commute trips are >5km.

This results in a weighted percentage trips by car of 0.35 x 61+0.65 x 70 = 67%

Therefore the total number of departure commute trips by car per day =1505 x 0.67= 1008. It

is assumed a similar number of arrival trips will also be completed by car per day.

Table 6.5 TA1 was used to establish the proportion of commute departures in the am peak hours 7-8 and 8-9, and arrivals in the pm peak between 16-17 and 17-18.

For the am peak departures a total of 612 trips were accounted for by Vectos over 12 hours with 30.2% departing between 7-8 and 21% departing between 8-9. For the am peak arrivals a total of 545 trips were accounted for with 7.2% arriving between 7-8 and 6.2 arriving between 8-9.

For the pm peak arrivals a total of 545 trips were accounted for by Vectos over 12 hours with 17% arriving between 16-17 and 26% arriving between 17-18. For departures a total of 612 trips were accounted for with 7.8 % departing between 16-17 and 10.3 % departing between 17-18.

In this analysis an equal number of commute departures= 1008 and arrivals= 1008 are assumed over the twelve hour period the peak hour and commute flows are tabulated using the Vectos peak hour proportions above and compared with the Vectos estimated peak flow.

Table 6.1 Commute Trip peak hour analysis from site demographics vs Vectos

Commute am and pm peak period flows using proportions employed by Vectos table 6.5	This analysis (% increase relative to Vectos analysis)		The Vectos analysis	
	arrive	depart	arrive	depart
7-8	73 (+87%)	304 (+64%)	39	185
8-9	62 (+82%)	212 (+72%)	34	123
16-17	171 (+82%)	78 (+63%)	94	48
17-18	262 (+82%)	104 (+65%)	144	63

It is clear that Vectos have significantly underestimated Commuter trips from the development both for the cumulative twelve hour period and for the peak hours. It is also a concern that for the Vectos drive commute trips the cumulative arrivals and departures do not correlate with 612 departures and 545 arrivals?

Two way peak flows for the am peak between 8-9 indicate that a two way commuting car flow from/to the development of 274 (+75%) will be observed compared with a Vectos value of 157.

For the pm peak between 17-18 it is estimated that two way commuting flows from/to the development of 366 (+77%) will be observed compared with a Vectos value of 207.

6.2 Assessment of Education Trips

The assessment of trips is made by education category eg Pre-school, Primary and Secondary.

Pre School Trips

Starting with pre-school trip demand, as shown previously, there is estimated to be a pre-school age population of 493 residing at the Lanes.

Reference 5 indicates that 62% of these children will be in formal childcare. This is a

total of 0.62 x 493 =306 children in childcare.

Reference 11 indicates that 73 % of the travel to childcare facilities will be by private vehicle.

Therefore 306 x 0.73 = 223 two way daily car trips required.

Primary School Trips.

It is estimated that there will be a population of 523 primary school age children resident at the Lanes.

Because all the local primary schools will be at full capacity the modal split for travel outside a 1 mile radius will be employed. The split values are given in table 6.6 of the Vectos TA1. This split indicates that 56% of primary school children will travel by car to their place of education.

Therefore 523 x 0.56= 293 two way daily car trips required.

Secondary School Trips.

It is estimated that there will be a population of 307 secondary school children resident at the Lanes.

As all secondary schools are located more than 1 mile away from site it is assumed that 56% will travel to and from their place of education my car.

Therefore 307 x 0.56= 172 two way daily car trips required.

Total Education Trips daily two way.

Pre –school 223

Primary 293

Secondary 172

Total 688

Assume over a twelve hour period 688 departures and 688 arrivals occur.

Table 6.8 Vectos TA1 was used to establish the proportion of commute departures in the am peak hours 7-8 and 8-9, and arrivals in the pm peak between 16-17 and 17-18.

For the am peak departures a total of 330 trips were accounted for by Vectos over 12 hours with 13% departing between 7-8 and 51% departing between 8-9. For the am peak arrivals a total of 237 trips were accounted for with 4% arriving between 7-8 and 19% arriving between 8-9.

For the pm peak arrivals a total of 237 trips were accounted for by Vectos over 12 hours with 10% arriving between 16-17 and 6% arriving between 17-18. For departures a total of 330 trips were accounted for with 4% departing between 16-17 and 2% departing between 1718.

In this analysis an equal number of commute departures= 688 and arrivals= 688 are assumed over the twelve hour period the peak hour commute flows are tabulated using the Vectos peak hour proportions above and compared with the Vectos estimated peak flow.

Table 6.2 Education Trip peak hour analysis from site demographics vs Vectos

Education am and pm peak period flows using proportions employed by Vectos in table 6.8	This analysis (% increase relative to Vectos analysis)		The Vectos analysis	
	arrive	depart	arrive	depart
7-8	28 (+211%)	89 (+112%)	9	42
8-9	131 (+185%)	351 (+107%)	46	169
16-17	69 (+176%)	28 (+115%)	25	13
17-18	41 (+215%)	14 (+133%)	13	6

It is clear that Vectos have significantly underestimated Education trips from the development both for the cumulative twelve hour period and for the peak hours. It is also a concern that for the Vectos drive commute trips the cumulative arrivals and departures do not correlate with 330 departures and 238 arrivals?

Two way peak flows for the am peak between 8-9 indicate that a two way commuting car flow from/to the development of 482 (+124%) will be observed compared with a Vectos value of 215.

For the pm peak between 17-18 it is estimated that two way education flows from/to the development of 55 (+189%) will be observed compared with a Vectos value of 19.

6.3 Assessment of Leisure trips.

Categorisation as Leisure trips is somewhat of a misnomer. Vectos state in para 6.19 TA1

Leisure trips include " walking the dog, visiting friends, day to day shopping such as for a pint of milk, other shopping, personal business, holiday day trips etc"

The reality is that "Leisure trips" covers all forms of shopping, personal business such as for banking, health visits such as hospital and GP, dentist, post office, religious service, all day trips, holiday trips, visiting friends, trips for entertainment and sport.

Reference 12 indicates that the following leisure trips per person per year are made for the following categories;

All shopping	160
Personal business	60
Visiting friends	75
Day trips	50
Sport and entertainment	30

Total leisure trips (one way?) per person per year 375

Bizarrely Vectos assume that 50 % of such leisure trips will be within the site boundary and are therefore excluded from the calculation. No justification for this assumption is given.

For the purpose of establishing modal split Vectos assumed the same split as for commuting namely, assuming leisure trips >5km ref table 6.4. therefore 70% are by car.

Total trips per day per person= 375/365= 1.03

Assume that the trips are single way trips return trips per person = 0.52

Assume that the trip data relates mainly to the adult population= 1850 (16-64 yrs) +470 (65+ yrs)

Total number of two way leisure trips/day =0.52 x 2320 = 1206

Table 6.9 Vectos TA1 was used to establish the proportion of commute departures in the am peak hours 7-8 and 8-9, and arrivals in the pm peak between 16-17 and 17-18.

For the am peak departures a total of 412 trips were accounted for by Vectos over 12 hours with 6% departing between 7-8 and 9% departing between 8-9. For the am peak arrivals a total of 412 trips were accounted for with 41% arriving between 7-8 and 2% arriving between 8-9.

For the pm peak arrivals a total of 462 trips were accounted for by Vectos over 12 hours with 13% arriving between 16-17 and 14% arriving between 17-18. For departures a total of 412 trips were accounted for with 8% departing between 16-17 and 7% departing between 1718.

In this analysis an equal number of commute departures= 1206 and arrivals= 1206 are assumed over the twelve hour period the peak hour commute flows are tabulated using the Vectos peak hour proportions above and compared with the Vectos estimated peak flow.

Table 6.3 Education Trip peak hour analysis from site demographics vs Vectos

Leisure am and pm peak period flows using proportions employed by Vectos in their table 6.9 TA1	This analysis (% increase relative to Vectos analysis)		The Vectos analysis	
	arrive	depart	arrive	depart
7-8	12 (+140%)	72 (+177%)	5	26
8-9	24 (+140%)	108 (+184%)	10	38
16-17	157 (+153 %)	96 (+200%)	62	32
17-18	169 (+156%)	84 (+190%)	66	29

It is clear that Vectos have significantly underestimated Leisure trips from the development both for the cumulative twelve hour period and for the peak hours. It is also a concern that for the Vectos drive commute trips the cumulative arrivals and departures do not correlate with 412 departures and 462 arrivals?

Two way peak flows for the am peak between 8-9 indicate that a two way commuting car flow from/to the development of 132 (+175%) will be observed compared with a Vectos value of 48.

For the pm peak between 17-18 it is estimated that two way commuting flows from/to the development of 253 (+ 166 %) will be observed compared with a Vectos value of 95.

Bizarrely in the Vectos TA1 table 6.9 under the heading passenger/taxi mode the arrivals over 12 hours total 873 and the departures total 48. There appears to be a systemic error in the way modal trip demand is estimated in the Vectos analysis.

Table 6.4 Total Peak hour car trips by all purposes 1,100 homes The Lanes

Total Trip demand summary 1100 homes										
Travel hour	Commute		Education		Leisure		Total 1 way		Total 2 way	Total 2 way Vectos
	arr	dept	arr	dept	arr	dept	arr	dept	(difference as %)	
7-8	73	304	28	89	12	72	113	465	578 (+68%)	345
8-9	62	212	131	351	24	108	217	671	888 (+78%)	499
16-17	171	78	69	28	157	96	397	202	599 (+61%)	372
17-18	262	104	41	14	169	84	472	202	674 (+61%)	418

Table 6.5 Total Peak hour car trips by all purposes 1,350 homes The Lanes

Total Trip demand summary 1350 homes										
Travel hour	Commute		Education		Leisure		Total 1 way		Total 2 way	Total 2 way Vectos
	arr	dept	arr	dept	arr	dept	arr	dept	(difference as %)	
7-8	90	372	34	109	15	89	139	570	709 (+75%)	405
8-9	76	261	161	432	30	133	267	826	1093 (+104%)	536
16-17	210	96	85	34	193	118	488	248	736 (+66%)	444
17-18	322	128	50	17	208	103	580	248	828 (+63%)	507

7 Committed Development Trip assessment and peak demand.

The committed developments to be considered are given in Table 1 of the Vectos TA2 Table 7.1 Committed developments employed in the Vectos TA

ID	Name	Dwellings	Employment space m2
1	Croston Road	174 (350)	N/A
2	Croston Road North	400	N/A
3	Penwortham Mills	385	N/A
4	Gas Works	248 (281)	N/A
5	Cuerden	210	205,600
6	Test track	950	28,000

7.1 Considering the impact of the dwellings first, assuming no social housing provision.

The provision of social housing mainly impacts the population statistics for children per household. Note if social housing numbers are significant for permitted developemts this caclculation is likely to be an underestimate.

Total committed dwellings =174+400+385+248+210+950 = 2367.

For the lanes at 1100 dwellings and no social housing the population is estimated to be

16-64 age = 1850

Pre school = 357

Primary School = 353

Secondary School = 193

65+ age population = 430

Total population estimate = 3183

For the committed developments it is assumed that similar demographics to the Lanes are valid.

Therefor the trip profile per dwelling is considered to be similar, and the proportion of trips distributed throughout the twelve hour period is also considered similar.

Therefore the committed development population is

16-64 age =1850 x 2367/1100 = 3980

Pre-school =357 x 2367/1100 = 768

Primary school =353 x 2367/1100 = 760

Secondary School = 193 x 2367/1100 = 415

65+ age group = 430 x 2367/1100 = 925

Total population = 6848

The total trip demand for the Lanes at 1100 dwellings is used as the basis for estimated committed development trip profile. The trip profile is then adjusted to reflect the lower demand for education trips as a result of the assumption of zero social housing,and is then scaled in the ratio of the total population of the committed development relative to the total population of the Lanes.

Table 7.2 The Lanes trip demand no social housing.

Total Trip demand summary Lanes 1100 Dwellings no social housing										
Travel hour	Commute		Education		Leisure		Total 1 way		Total 2 way	
	arr	dept	arr	dept	arr	dept	arr	dept		
7-8	73	304	19	60	12	72	104	436	540	
8-9	62	212	89	238	24	108	175	558	733	
16-17	171	78	47	19	157	96	375	193	568	
17-18	262	104	28	10	169	84	459	198	657	

The trip data above is scaled in the ratio of population, scaling factor =6848/3183 = 2.15
Table 7.3 Committed development trip demand scaled from the Lanes analysis

Total Trip demand summary Committed development 2367 dwellings										
Travel hour	Commute		Education		Leisure		Total 1 way		Total 2 way	
	arr	dept	arr	dept	arr	dept	arr	dept		
7-8	157	654	60	191	26	155	243	1000	1243	
8-9	133	456	282	755	52	232	467	1443	1910	
16-17	368	168	148	60	157	206	673	434	1107	
17-18	563	224	88	30	363	181	1014	435	1448	

7.2 Consider the impact of commercial floor space on trip demand.

The Cuerden site has planning consent for 205,600 m2 and the test track site has consent for 28,000 m2. The Cuerden site has permission for 210 houses.

To extract the trip rates assigned to the commercial development the Cuerden site trip rate data given in table 5 and 6 of TA2 was employed to extract this data by difference.

To establish the Cuerden trip contribution from housing the total committed development trips tabulated above were scaled down in the ratio of 210/2367 = 0.089.

Table 7.4 Establishing Cuerden commercial trip demand by difference.

Evaluation of commercial site trips using Cuerden data given in table 5+6 of TA2						
	For 210 dwellings scaled From table above		Total trips from Cuerden site Tables 5+6		Commercial trip contribution by difference	
	arr	dept	arr	dept	arr	dept
7-8	21	89	264	221	243	132
8-9	42	128	648	418	606	290
16-17	60	39	469	1467	409	1428
17-18	90	39	418	653	328	614

The Commercial trip contribution for Cuerden, at 205,600 m2 is scaled down to provide the commercial contribution from the test track development at 28,000 m2.

Table 7.5 Test Track commercial trip demand by scaling from Cuerden.

	Cuerden Commercial trips for 205,600 m2		Test track site commercial trips for 28,000 m2; factor 0.136		Total Commercial Trips for both sites	
Travel hour	arr	dept	arr	dept	arr	dept
7-8	243	132	33	18	276	150
8-9	606	290	82	39	688	329
16-17	409	1428	56	194	465	1622
17-18	328	614	47	84	375	698

8 Impact on the A582, 1100 home development with committed development.

Table 8.1 Summary of total trips for the Lanes plus Committed development.

Total Trips the Lanes 1100 homes plus committed development trips; Local Road Impact									
	The Lanes 1100 homes			Committed development homes and commercial			Total trips		
	arr	dept	2 way	arr	dept	2 way	arr	dept	2 way
7-8	113	465	578	519	1150	1669	632	1615	2247
8-9	217	671	888	1155	1772	2927	1372	2443	3615
16-17	397	202	599	1138	2056	3194	1535	2258	3793
17-18	472	202	674	1389	1133	2522	1861	1335	3196

Comparison is now made with the data given in Vectos TA2 tables 5+6 with the data calculated in table 8.1 above.

Table 8.2 Comparison of committed development trips; this analysis vs Vectos

	Total 2 way trip Generation Committed Development		
time	This analysis	Vectos	Factor
7-8	1669	1198	1.39
8-9	2927	2250	1.30
16-17	3194	3006	1.06
17-18	2522	1844	1.37

Vectos TA2 table 7.2 shows the Vectos estimated delays on Route 1 on their network model for North and South bound traffic flows. Route 1 is the A582 between the Tank Roundabout and the Penwortham Triangle.

Scenario 2 is the 2031 base estimated flow plus the committed developments and Scenario 3 is the 2031 base plus committed developments plus the Lanes development at 1100 homes.

It can be seen from Vectos TA2 table 7.2 that the average two way delay (average of north and southbound delays) at the am peak (8-9) for the committed development scenario is 407 seconds, and for the committed development plus the Lanes development at 1100 homes this increases to 510 seconds.

Table 8.2 above shows that Vectos have underestimated the committed development two way flow at the am peak by 30%.

Similarly table 6.4 above shows that the impact of the Lanes development trips at the am peak has been underestimated by 78%.

A similar analysis can be undertaken for the pm peak (17-18)

Assuming that there is a linear relationship between trip numbers and traffic delays which is a conservative position to take, then the estimated delays in the vectos TA1 table 7.2 is revised as follows.

Table 8.3 Revised traffic delays on A582 route 1 to account for Vectos trip demand underestimate.

Revised am peak delays for the A582 (route 1)			
	Scenario 2 2031 base plus CD	Scenario 3 2031 base plus CD plus the Lanes	Difference attributable to the Lanes 1100 homes
Vectos average delay, 2 way	407 sec (6.8 min)	510 sec (8.5 min)	103 sec (1.7 min)
Factor to account for Vectos trip rate underestimation	1.3 (table 8.2 above)	1.78 (table 6.4 above)	
Revised average delay, 2 way	529 sec (8.8 min)	908 sec (15.1 min)	379 (6.3 min)

Revised pm peak delays for the A582 (route 1)			
	Scenario 2 2031 base plus CD	Scenario 3 2031 base plus CD plus the Lanes	Difference attributable to the Lanes 1100 homes

Vectos average delay, 2 way	437 sec (7.3 min)	544 sec (9.1 min)	107sec (1.8 min)
Factor to account for Vectos trip rate underestimation	1.37 (table 8.2 above)	1.61 (table 6.4 above)	
Revised average delay, 2 way	599 sec (10.0 min)	876 sec (14.6 min)	277 sec (4.6 min)

These revised delays are significant and economically and environmentally damaging when compared with the current journey time on the A582 from the tank roundabout to the Penwortham Triangle which according to Google maps varies from 7 minutes off peak to typically 10-11 minutes during peak hour traffic flow.

The economic cost to the region will be significant and is calculated in section 9 below.

The delays will significantly increase the emission of CO2 into the environment over the next decades and further reduce air quality in the region. This impact is quantified in section 10 below.

Let us now consider how these trips assigned to the A582. Consider only those developments that are located immediately adjacent to the A582 namely;

- Croston Road Hetherleigh Moss lane 600 homes
- Cuerden 210 homes plus 205,600 m2 commercial floorspace
- Test track 950 homes plus 28,000 commercial floorspace

By scaling the total committed housing development trips in table 7.3 the trip contribution from housing can be found. To this can be added the trip contribution from commercial floorspace to provide the total trips generated from each committed development adjacent to the A582.

Table 8.4 Total trip generation from committed developments adjacent to the A582

	Croston Road 600 homes		Cuerden 210 homes plus 205,600 m2 commercial				Test Track 950 homes plus 28,000 m2 commercial			
	Housing trips		Housing trips		Commercial trips		Housing trips		Commercial trips	
	arr	dep	arr	dep	arr	dep	arr	dep	arr	dep
7-8	61	253	22	90	243	132	97	410	33	18
8-9	118	365	42	130	606	290	187	379	82	39

16-17	170	110	61	39	409	1428	270	174	56	194
17-18	257	110	91	39	328	614	407	174	47	84

In order to assign a suitable proportion these two way flows to the A582 the following broad assumptions were made;

- For the Test Track two way flow 90% reports to Flensburg Way South of the Tank Roundabout. At the tank Roundabout 45% reports to the A582 to/from Preston. The remaining 45% reports to the A582 towards the M6. The balance 10% of two way Test Track trips report to/from Leyland.
- For the Croston Road two way flow it is assumed that 100 % reports to Flensburg Way where at the tank roundabout 50% reports to/from Preston on the A582. The remaining 50% reports to the A582 towards the M6.
- For Cuerden two way flow it is assumed that it is assigned 40% fo/from the direction of the M6, 30% is assigned to/from the A6, and 30% is assigned to/from Preston on the A582.
- For the Lanes trips it is assumed that 100% of the two way trips report to the A582.

On this basis;

The total two way flow on the A582 at the am peak in the vicinity of the Lanes site entrance is therefore;

(1068 (Cuerden) x 0.3) + (697 (Test track) x 0.45) +(483 (Croston Road) x 0.5) + 888 (the Lanes) = 1763 two way trips am peak

To place this flow into context the total observed two way flow measured on the A582 in 2018 in the vicinity of the Lanes site entrance was 2125 two way flows at the am peak. Reference 13

Therefor the Lanes at 1100 homes plus the committed developments will increase A582 traffic flow by 83% relative to current conditions at the am peak. For 1350 homes the traffic on the A582 will increase by 93% relative to current conditions at the am peak.

The anticipated increase in flow is likely to produce catastrophic traffic congestion on the A582 and surrounding local roads

A582 Dualling will not solve the problem..

The option of dualling the A582 will have little impact on delays as it is obvious that the traffic flow rate on the A582 is primarily determined by the number of closely located traffic junctions. Adding in another traffic light controlled junction between Pope lane and Chainhouse lane to serve the Lanes development will make widening an even more futile and expensive exercise.

It is also clear that there appears to be no source of funding to complete the A582 widening.

Because the project requires extensive bridge works it is likely that the project will cost in excess of £120 million with the Preston City Deal providing £70 million and the DfT providing £50 million. The DfT funding is uncertain as the scheme is likely to demonstrate poor Taxpayer value for Money.

The problem for the Preston City deal is that the finances are in a deficit position, with a current committed deficit of £100 million. Providing a further £70 million to fund the A582 Widening will be considered financially unsustainable.

The poor financial conduct of the Preston City Deal and lack of effective governance is also the subject of a recent complaint to the Local Government Ombudsman which is currently under investigation.

The impact of the A582 junctions on traffic speed is well illustrated in the diagram below which shows recent measured values of traffic speed. This graphic was extracted from the LCC SOBC for the A582 Widening Project Reference 14. The diagram shows the impact on Northbound traffic but the same pattern also exists for the South Bound traffic. Note the classic saw-tooth speed profile, and requirement for multiple acceleration and deceleration cycles. This sawtooth profile generates high levels of pollutants. Also note that the A582 in the vicinity of Stanifield Lane to the M6 is currently dualled and most major junctions have already been upgraded..

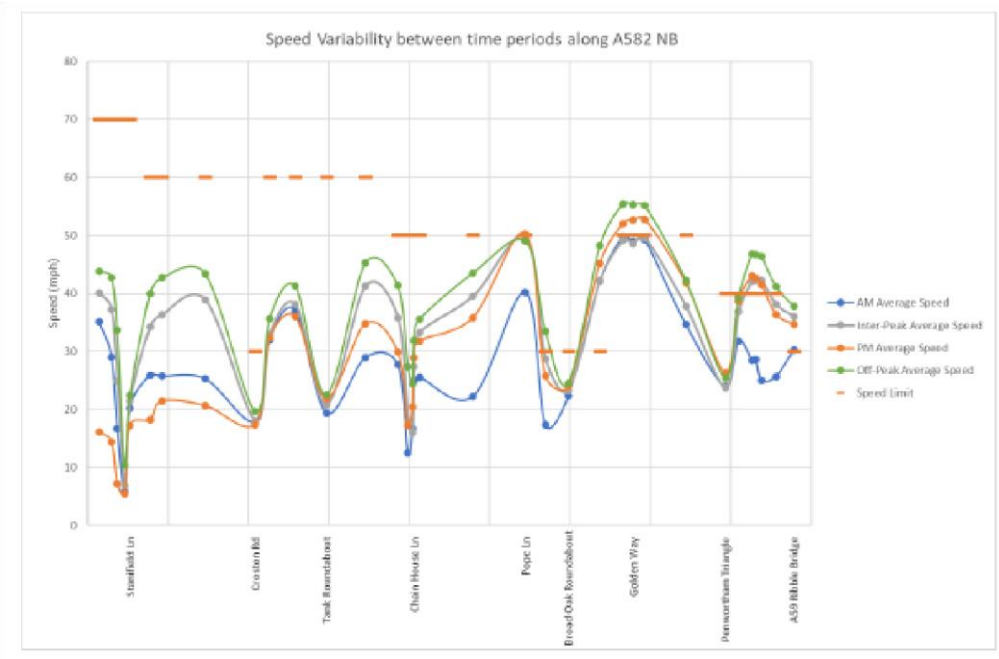

Figure 1 Currently Observed traffic speed variation A582 NB

***9* Revised estimation of delay time and economic impact for A582 (route 1).**

The following is a calculation to monetise the impact the revised delays identified in table 8.3 will have on the local economy.

From table 6.14 in the Vectos TA1 the percentage of two way flow assigned to each hour in the twelve hour time span is established for the Lanes at 1100 homes.

It is found that that

- 30 % of all two way trips occur between 7.00 and 10.00 am. Assumed average delay 66% of am peak
- 25% of all two way trips occur between 10.00 am and 15.00 pm. Assumed average delay 33% of the pm peak
- 45% of all two way trips occur between 15.00 pm and 19.00 pm. Assumed average delay 90% of the pm peak

Table 3.2 in the SOBC for the A582 Reference 14 provides current traffic data for the A582, compared with congestion reference flows for the road. It shows that the modelled current flow (2020) is 18,872 AADT two way, with a congestion reference flow of 22,000.

If the am peak flow assumed for the committed development and the Lanes at 1100 homes is assumed to be 15 % of the daily total then the total two way flow on the A582 Penwortham Way is estimated to be 1763/0.15 = 11753 + 18872 (2020 base) =30,625 AADT.

Next a weighted delay time is calculated for scenario 2 and 3 for the period 7 am to 7 pm.

For scenario 2 the AADF on the A582 for the 2020 base plus committed development is 24,705.

Table 9.1 Weighted average daily delay time for scenario 2 A582

Scenario 2 Base flow (2020) plus committed development; two way daily flow 24,705				
Time period	% flow split	Flow in time period	Delay in time period (minutes)	Cumulative delay in time period (hours)
7-10	30	7412	8.8 x 0.66 = 5.8	7412 x 5.8/60 = 716.5
10-15	25	6176	10.0 x 0.33 = 3.3	6176 x 3.3/60 = 339.7
15-19	45	11117	10.0 x 0.9 = 9.0	11117 x 9.0/60 = 1667.6
				Total hours delay per day =2723.80

For scenario 3 the AADF on the A582 for the 2020 base plus committed development plus the Lanes at 1100 homes is 30,625.

Table 9.2 Weighted average daily delay time for scenario 3 A582

Scenario 3 Base flow (2020) plus committed development; two way daily flow 30,625

Time period	% flow split	Flow in time period	Delay in time period (minutes)	Cumulative delay in time period (hours)
7-10	30	9188	15.1 x 0.66 = 9.97	9188 x 9.97/60 = 1526.74
10-15	25	7656	14.6 x 0.33 = 4.82	7656 x 4.82/60 = 615.03
15-19	45	13781	14.6 x 0.9 = 13.14	13781 x 13.14/60 = 3018.03
				Total hours delay per day =5159.80

Reference 15 provides Webtag 2014 value of time data employed in road scheme economic appraisal.

The rates are as follows;

- Commuting £7.62 / hour
- Business £24.43 / hour
- Non work travel £ 6.77 / hour

From NTS 2020 the approximate split for car travel trips by purpose is as follows;

- Commuting 15%
- Business 3%
- Non work related 82%

Thus a weighted value of time of £7.43 per hour is applied to the delays given in table 9.1 and 9.2 above.

It is also assumed that the delays estimated above apply mainly to working days, and it is assumed that there are 256 working days in the year in England.

Therefore the cost of delays to the local economy in 2014 prices, just for the A582 Route 1 are as follows;

Scenario 2 ; 2020 base plus committed development = 2723.8 hrs/day x £7.43 per hour x 256 working days per year =£ 5.18 million per year.

Scenario 3; 2020 base plus committed development plus the Lanes at 1100 homes = 5159.8 hrs /day x £7.43 per hour x 256 working days per year = £ 9.81 million per year.

To account for HGV delay costs assume HGV traffic accounts for 10% of the 2020 base flow of 18,872 two way trips per day ref table 7 and 8 of the Vectos TA2, and HGV accounts for 10 % of the commercial trips arising from the committed developments at Cuerden and Test Track, resulting in an additional HGV daily two way trip total of 405 and 55 respectively.

This makes a total of 2347 HGV two way daily trips both for scenario 2 and 3. Assuming that this flow is distributed as for cars and subject to the same delays and a value of time cost of £25.47 / hour, then the cost of HGV delays in scenario 2 is an additional £1.71 million and for scenario 3 an additional £2.58 million.

Therefore A582 Scenario 2 total cost of delays = £5.18 million + £1.71 million = £6.89 million

And the total cost of A582 Scenario 3 delays = £9.81 million + £2.58 million = £12.39 million

Cost to the local economy of travel delays on the A582 attributable to the Lanes development at 1100 houses = £5.5 million per year.

10 Traffic delays; Impact on CO2 generation, A582.

The impact of delays on CO2 generation is now calculated by establishing how vehicle fuel efficiency diminishes as a result of delays and reduced average speed. Reference 16 . This shows how car fuel efficiency changes as a function of vehicle speed and engine emissions standard.

Reference 17 also shows how HGV fuel efficiency changes as a function of vehicle speed. For this analysis it is assumed that a mid-weight range HGV namely 12 te rigid is a reasonable average HGV vehicle type.

Using the cumulative delays given in tables 9.1 and 9.2 above for scenario two and three the following CO2 generation rates are calculated for cars.

10.1 Scenario 2 additional CO2 generated from traffic delays.

A582 distance for route 1 is 4.7 km and observed average two way journey time is 347 s or 5.78 min, from Vectos tables 17 and 19 TA2

Therefore the average two way speed is 4.7 x 60 /5.78 = 48.8 km/hr (30.5 mph)

For scenario 2 the cumulative average daily delay time from table 9.1 is 2723.8 hours with an average daily two way vehicle flow of 24,705. Average delay per vehicle is therefore 2723.8 / 24705 =0.11 hr =6.6 min.

Therefore the average speed on route 1, A582 reduces to (4.7 x 60)/ (5.78+6.60) = 22.78 km/hr.

Fuel efficiency for current reported speed condition of 48.8 km/hr = 6 Litres/ 100 km. Reference 16

Fuel efficiency for scenario 2 at an average speed of 22.78 km/hr = 9.3 litres/100 km

Therefore daily fuel consumption current condition = 6/100 x 4.7 x18872 = 5322 litres

Fuel consumption scenario 2 = 9.3/100 x 4.7 x 24705 =10450 litres

Additional fuel cosumption resulting from committed development delays is 10450- 5322 = 5128 litres /day

Assume average density of fuel is 0.8 kg.litre and % w/w carbon in fuel is 87% then

Carbon combusted per day = 5128 x 0.8 x 0.87 =4103.3 kg/day

Assume 100% carbon converted to CO2 and 1 kg mol CO2 weighs 44 kg and 1kg mol carbon weighs 12 kg then CO2 released to the atmosphere = 44/12 x 4103.3 =15044 kg/day

CO2 released per year as a result of committed development delays = 15044 x 256/1000 tonnes per year = 3851.3 tonnes per year.

To account for HGV delays on CO2 emissions assume HGV traffic accounts for 10% of the 2020 base flow of 18,872 two way trips per day ref table 7 and 8 of the Vectos TA2, and HGV accounts for 10 % of the commercial trips arising from the committed developments at Cuerden and Test Track, and reporting to the A582, this results in an additional HGV daily two way trip total of 405 and 55 respectively, making a total of 2347 HGV two way daily trips both for scenario 2 and 3.

Assuming that this flow is distributed as for cars and subject to the same delays then the the contribution to CO2 generation as a result of delays for scenario 2 is calculated as follows; Current speed on route 1, A582 = 48.8 km/hr. (section 10.1)

Average vehicle delay is 6.6 min and average speed for scenario 2 reduces to 22.78 km/hr.

Reference 17 gives the speed/ fuel efficiency curves for a mid-range rigid 12 tonne HGV.

The HGV total flow for the current condition is assumed to be 10% of 18872 =1887

The fuel consumption at 48.8 km/hr is 16 Litres/100 km.

Therefore average HGV fuel consumption for current road conditions per day = 16/100 x 4.7 x 1887 = 1419 litres.

For scenario 2 the speed reduces to 22.78 km per hour and the fuel efficiency reduces to 23 litres/100 km.

Therefore for scenario 2 HGV two way flow increases to 2347/day and the fuel consumption per day = 23/100 x 4.7 x 2347 = 2537 litres.

Assuming diesel fuel is consumed then the density is 0.85 kg/litre and the % carbon by weight is 87%.

Therefore scenario 2 delays result in an additional 2537- 1419 = 1118 litres being consumed on average by HGV's.

Using the same calculation method as above for scenario 2 HGV delays add a further 3031 kg CO2 per day or 776 tonnes CO2 per year.

Therefore scenario 2 committed developments delays result in an additional 3851+ 776 = 4627 tonnes/year of CO2 discharged to the environment.

10.2 Scenario 3 additional CO2 generated from traffic delays

Employing the same methodology as for section 10.1 the average delay now increases to 5159.8/ 30625 = 10.11 min from table 9.2 above.

The average vehicle speed reduces to 4.7 x 60 / (5.78 + 10.11) = 17.75 km/hr.

At this speed the fuel efficiency for an average car drops to 10.1 litres / 100 km. Reference 16

Daily fuel consumption for scenario 3 = 10.1/100 x 4.7 x 30625 =14537.7 litres

Daily additional fuel consumption resulting from scenario 3 delays = 14537.7 – 5322 =9215.7 litres.

Equivalent CO2 generation rate = 6921 tonnes /year

Additional contribution from delays experienced by HGV's;

Mid range HGV fuel consumption at 17.75 km/hr is 27 litres /100 km. Reference 17

Daily fuel consumption = 27/100 x 4.7 x 2347 = 2978 litres.

Therefore scenario 3 delays result in an additional 2978- 1419 = 1559 litres being consumed on average by HGV's.

This is equivalent to 1082 tonnes per year.

Therefore traffic delays resulting from scenario 3 committed developments plus the Lanes at 1100 homes produce an additional 6921 + 1082 = 8003 tonnes/year of CO2 discharged to the environment.

To put this figure into context South Ribble is estimated to generate 243200 tonnes of CO2 per year from transport in 2019 Reference xx (LCC Carbon Dioxide Emissions report 2019).

Committed developments plus the Lanes will increase this figure by 3.3%

Given that a tree can absorb 21 kg of CO2 per year it will require South Ribble to plant 381,000 trees to offset this additional CO2 generation. This will require approximately 38.1 square km of land.

11 Conclusion.

This analysis shows that the proposed Lanes development will have a major adverse impact on Social infrastructure. It appears that there will be no availability of primary school places from the onset of the development within two miles of the site.

The provision of Secondary School places will be under severe pressure will little or no parental choice in the catchment area.

It is doubtful if there will be sufficient formal pre-school facilities available in the catchment.

This absence of local education infrastructure will lead to increasing levels of car dependency and congestion.

There needs to be a significant investment in GP and medical facilities in the region in order to cater for the significant increase in local population that will result from the committed

developments and the proposed Lanes Development. It is not clear if there are plans for such an investment to be made, and the absence of such investment will lead to a significant worsening of the quality of local healthcare provision.

It is not clear that the responsible authorities are aware of the magnitude of the infrastructure problem that will need resolution if the Lanes is permitted. It is not clear that the responsible authorities are fully aware of the impact of the committed developments, especially for the provision of education services.

It appears that Vectos have grossly underestimated the impact of car dependency that will result from the development by a staggering 78 %. The impact of traffic delays on the A582 will be catastrophic.

Although time pressures have limited our analysis to impacts on the A582 it is likely that such underestimates of traffic demand will also severely impact on the other local roads. In particular on the B5254 and the junctions with the SRN.

The economic impact of traffic delays to the region will be severe, with delays on the A582 alone resulting in an economic cost of £5.5 million per year. Note that delays throughout the network will add significantly to this total.

These delays will increase CO2 emissions to the atmosphere as traffic speed slows to a crawl on the A582, at 17.75 km /hr. CO2 emissions resulting from committed developments and the Lanes traffic delays on the A582 will add just over 8000 tonnes/years CO2 to the atmosphere.

If other delays in the local road network are also accounted for it is likely that total CO2 emissions will be in excess of 10,000 tonnes. This is not a good situation for a local council that has declared a climate emergency and has a current CO2 emission total from road transport of 243,000 tonnes per year. Reference 18.

12 References.

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2. Population Forecasting Study; Cognisant research for Northamptonshire County Council 2014.
3. New Housing Developments and the Built Environment; Cambridgeshire and Peterborough Clinical Commissioning Group and Cambridgeshire County Council. 2017
4. SRBC Housing Position Statement April 2020.
5. Childcare and Early Years Survey of Parents in England 2018 for the DfE.
6. Article in Pulse magazine July 2019
7. Lancashire Pharmaceutical needs Statement 2015
8. Lginform Website-Ratio of GP's per 10,000 population in England .

9. Nomisweb employment statistics for South Ribble.

10. Employment Statistics for Workers age 50 and over, by five year age bands and gender for DfW and P Nov 2015.

11. Exploring travel behaviour in households with pre-school children. Journal of the transportation research board January 24 2021.

12. UK Gov publishing service data file 131460/37-Chart 37 Trips by purpose NTS.

13. Croft Edison TA for the 2020 Lanes Masterplan

14. SOBC LCC A582 Widening Project July 2019 (redacted)

15. DfT Technical report; Provision of Market Research for Value of travel Time Savings and Reliability 15 August 2015. Arup.

16. Reduced Carbon and Energy Footprint in Highways Operations; The Highway Energy Assessment (HERA) Methodology.

17. Speed Emission/Energy curves for ultra-low emission vehicles. Ricardo AEA for the DfT 23 June 2015.

18. LCC document Carbon Emissions Summary 2019 Table 1; local and regional estimates for CO2 emissions

APPENDIX 2

KBLR response to the Masterplan Flood Risk and Drainage Strategy and Appendix 11.1 Lee Roxborough and McCloy Flood Risk Assessment

Executive Summary

- The Flooding assessment Appendix 11.1 fails to state what the uncontrolled surface water runoff will be for the development. This information is essential to set a design baseline.(para 1.2)
- By making reasonable assessment of impervious surfaces it is estimated that the post development run off from catchment A will be 4034 m3/hr and from catchment B 4076 m3/hr. (para 1.3, 1.4)
- In order to control this excessive run off rate the developer proposes a large flow controlled gravity draining attenuation basin to the west of the site for catchment A, and a large flood basin with flow controlled pumped outflow to the North of the site for catchment B.(para 2.1, 2.2, 2.3, 2.4, 2.5)
- For catchment A the developer proposes that the new dwellings will have raised foundations with a minimum height of 0.15 m, however, tellingly the developer remains silent on the maximum height of foundations. Because of the need to dispose of 40,000 cubic metres of excavation spoil from the attenuation basin and associated swales it is almost certain that large areas of the site will be raised to the detriment of existing dwellings. (para 2.3).
- For existing dwellings at ground level this proposal will considerably increase flood risk relative to those with raised foundations.(para 2.3)
- The developer states that property in catchment A will be protected up to a 1 in 30 year rainfall event. For structures designed for a 60 year life those structures will on average experience two flooding events in that time. Data produced by the Met office states that the probability of 1 in 30 flooding event has increased for all regions of the UK during winter and for Dorset and the North West of England in particular for summer periods, so it is highly likely that these properties will experience more than two flooding events on average in 60 years. (para 2.3)
- The catchment B flood basin is designed with significantly raised earthworks on the southern side of the basin. Again the developer states a minimum height of 0.63 m above the 1 in 100 year flood level. Note again no maximum is quoted and that the height is not relative to a ground level datum but to a flood level. It is quite possible that the earthwork berm could be 1-2 m in height. Note that this raised earthwork structure completely or partially surrounds a number of existing properties. Those properties will be at significantly increased risk of flooding and the environmental and visual impact will be severe. (para 2.6, 2.7,2.8)
- A graphic is provided in Appendix 11.1 that shows in a 1 in 100 flooding event plus a 40% global warming allowance the flood basin has insufficient capacity and it preferentially floods Kingsfold which is unprotected because of the absence of protective earthworks on the north side of the flood basin. Indeed it appears that the raised earthworks to the South of the flood basin are designed to protect the site to the South whilst sacrificing Kingsfold to the North. (para 2.8, 2.15)
- The flood basin has a capacity of 16,205 cubic metres. At a run off rate of 4076 cubic metres per hour the basin will flood in just under four hours. It is suspected that this is the reason no post development run off rates are provided in any of the documents as this capacity appears inadequate. The pumps are limited to a rate of 100 litres/sec so they will have little impact on

this flooding time. It is reported in a Defra/Environment Agency paper "Extreme Rainfall and Flood Event Recognition" Aug 2002 that for the majority of extreme rainfall events measured from 1930 to 2000, the duration ranged from 3-60 hours with the average ~20 hours. This data indicates that the flood basin design will be ineffective for the majority of extreme rainfall events as it has insufficient capacity. (para 2.13, 2.14)

- The use of a pumped outflow from the flood basin provides another system vulnerability and is likely to be in continuous use to maintain a drained basin in the event that an extreme rainfall event should occur. If these pumps are electrically driven the electrical supply also needs flood protection, and no mention of this is made in the report. Indeed the Welsh Government states that for groundwater drainage solutions "*because of the ongoing energy and maintenance requirements of pumping water and the risks associated with failure pumping should be avoided where possible"* (para 2.9,2.10).Certainly the use of a pumped discharge system is not sustainable.
- There is no assessment, in any of the Flooding documentation, of the impact of system failure either through poor design or maintenance. Indeed it unclear who will be responsible for the costs of system failure should this occur. The lack of clear accountability for system failure resonates with the situation apparent for the Grenfell Tower tragedy, with multiple design authorities involved but no clear accountability. (para 2.11 and section 4)
- There appears to be significant shortcomings regarding the hydrological model employed in the flood predictions. In the section of the appendix dealing with model validation the authors claim that the pictures of extreme flooding posted on the internet by scheme objectors represent a historic 1 in 30 year rainfall event and the model accurately predicts the extent of flooding observed in the photographs. Any local resident will point out that the flooding observed in the photographs occurs regularly and is not a 1 in 30 year event. This then raises serious questions regarding the integrity of the model and its ability to predict current regular flooding and a true 1 in 30 year event. (para 3.1, 3.2)

- The authors also state "<u>No detailed flood data is available for accurate</u> <u>validation or calibration of the model</u>" yet this proposal has been promoted by developers since 2015. It is therefore remarkable that in the intervening period no attempt has been made to collect this critical data. (para 3.2)
- Spoil disposal from the excavation of the attenuation basin and swale system to the west of the site will generate approximately 40,000 tonnes of waste boulder clay, requiring the equivalent of approximately 2,000 truck trips. This has the potential to generate a significant emission and transport problem. It is unclear how the developers propose to manage this spoil generation. (section 5)

- The utility company responsible for sewage treatment in the region is United Utilities. This company has a shocking record of underinvestment and routine discharge of untreated sewage to river and sea, indeed it has the worst record in England. This is symptomatic of a local sewage treatment infrastructure that is not fit for purpose. On this basis alone no new housing development applications should be approved in South Ribble until United Utilities can guarantee that routine discharges of untreated sewage to river and sea have been halted. Approving this application is almost certain to increase the frequency and duration of such discharges. This is totally unacceptable as it is maximising shareholder profit at the expense of our environment. (Section 6).

Setting the baseline

1.1 Existing run off rates for the two main site catchment areas for the site, catchment A and catchment B are estimated by employing data from Figure 4.1 and Figure 4.4 and table 4.2, 4.3 and 4.4. Figures 4.1 and 4.4 are overlaid to provide a surface area weighted existing run off rate. Data for the 1 in 100 year rainfall event plus 40% global warming contingency is used.

1.2 Catchment B, 23.1 Ha total area, is covered entirely by existing catchment 3 and therefore has a total existing runoff rate of 23.1/54.5 x1335 litres/sec = 566 litres/sec = 2038 m3/hr.

1.3 Catchment A , 54 Ha total area, area consists of approximately 50% existing in catchment 3, 30% in catchment 2 and 10% in catchment 1 giving a weighted run off rate of ((0.5 x1335)+(0.3 x376.5)+(0.1 x 184.3)) x 54/77.4 = 560 litres/sec = 2017 m3/hr

1.4 Appendix 11.1 states "Uncontrolled flows from the development will exceed existing run off rates" but the report fails to state what they would be.

1.5 Data from a drainage strategy paper for a site off Blackburn Road Longridge indicates that for a site of this nature with a total development area of 30,000 m2 , buildings occupy 10,090 m2 and roads footpaths and parking occupy 12,310 m2. Therefore the percentage impervious surface is 22,400/30,000 = 75%. Leaving a permeable surface for run off attenuation equivalent to 25% of the development area.

1.6 Taking a position assuming 50% permeable land remains for both catchments post development, the development run off flow is likely to be at least double the existing run off flow, which for catchment A is 2017/0.5 m3/hr or 4034 m3 per hour and catchment B is 2038/0.5 m3/hr or 4076 tonnes per hour. This is fundamental baseline information which was excluded from Appendix 11.1.

1.7 The site is essentially landlocked with only one watercourse available for drainage namely Mill Brook.

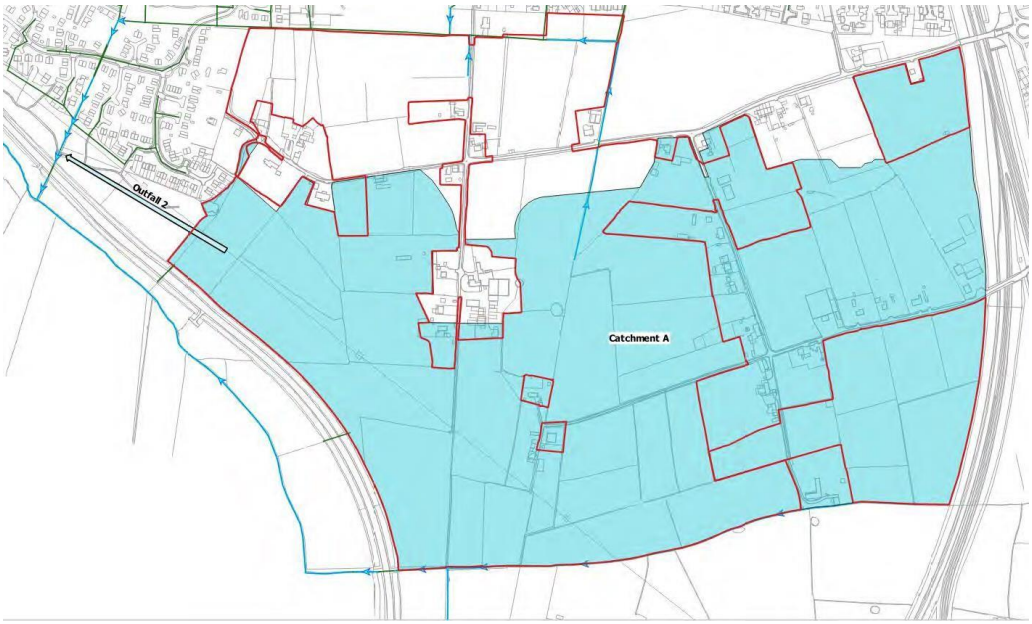
1.8 Mill Brook also serves to drain surface water from existing developments in Kingsfold and Penwortham and from the surface of the A582 and the Penwortham Bypass and from existing properties on site. There has been no attempt to calculate the run off flows from these existing sources for the I in 100 year design scenario above, and whether Mill Brook is capable of functioning under such circumstances and what the water levels are likely to be.

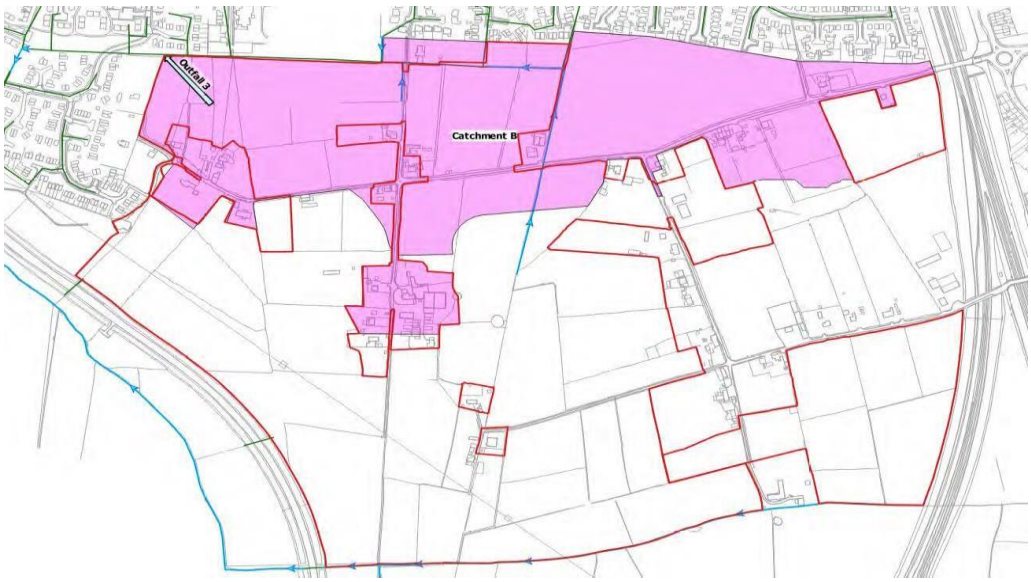
1.9 The developers recognise that site run off needs to be controlled.

2 The proposed solution.

2.1 The developers propose the use of two outflows from site both draining to Mill Brook. One is to the North of Kingsfold using the Northern Tributary Boundary Culvert (Outfall 3). The second is to the South of Kingsfold where a drainage culvert crosses Penwortham Way (Outfall 2).

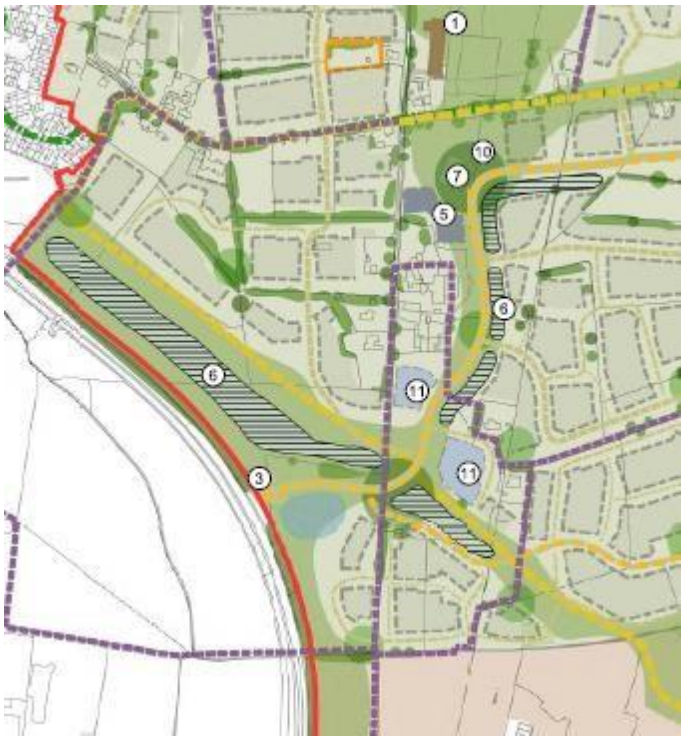
2.2 These outfalls will serve two drainage catchment areas A and B. Catchment B is the area of site that has the seriously challenging flooding risk and drainage conditions and will be drained to Mill Brook via Outfall 3 (Northern Culvert). Catchment A is 54 Ha and existing drainage is 560 litres/sec for the 100 year plus 40% event. It is proposed to drain this via Outfall 2. Catchment B is 23.1 Ha and has a drainage rate estimated at 566 litres/sec for the 100 year plus 40% event. Because of the site topography and geology both catchments face considerable flooding risk. The diagrams below show catchment details.





2.3 The proposed flood mitigation solution for catchment A is a large attenuation basin with an interconnected swale system. The development floor levels will be set to a ***minimum*** of 0.15 m above the ground level. The lack of any information on the likely maximum foundation elevation indicates extreme design uncertainty. In some areas it is likely that foundations could be raised to 0.5 m. Houses and hard surfaces will have piped surface drainage systems that will prevent flooding up to a 1 in 30 year event. That equates to a yearly probability of such an event occurring as 3.33 %. As these houses will be built to exist for a minimum of 60

years each property in this catchment is likely to experience on average two flooding events over sixty years. *The probability of flooding for existing properties in this catchment without raised foundations is likely to be far higher.* It is also noted that these "thirty year" events are becoming far more frequent as indicated in the met office report to Ofwat dated July 2010.It states all winter rainfall events for all areas of the UK are predicted to become more frequent, and that for the 20, 30 ,50 and 100 year events the biggest summer increases are projected to occur over both Dorset and North-West England



Catchment A attenuation ponds and swale system shown as feature 6.

2.4 The outflow from the catchment A attenuation basin is controlled to 100 litres/sec using a hydrobrake. These structures are vulnerable to silting and require regular maintenance. The reason for the outflow restriction is to prevent excessive demand on the outfall to Mill Brook. It is estimated that the attenuation basin has a surface area of approximately 600 x 25 m. Assuming it will be 2 m deep approximately 30,000 cubic metres of clay spoil will need to be disposed of either
on or off site. Assuming the catchment A attenuation basin capacity is 30,000 cubic metres will take approximately 7.5 hours to fill. This appears insufficient given the likely duration of the 1 in 100 year rainfall event, please refer to para 2.13 below. The total spoil resulting from the excavation of the attenuation basin and the swales is over 40,000 cubic metres. If disposed of on site the implication is that significant areas of the site will be raised with an increased flood risk for the existing dwellings in the vicinity. Vague references are made in the documentation to the need to raise parts of the site but no specific values are given.

2.5 The proposed flood mitigation for catchment B is far more complex because of the site topography and drainage catchment area. It is concluded in the appendix 11.1 that there is insufficient gradient for gravitational flow from an attenuation basin as for catchment A. The approach proposed is to create an artificial flood basin at the north boundary of the site shown

as feature 4 on the Illustrative Master Plan. The scheme is also shown in figure 4.12 of Appendix 11.1 and on

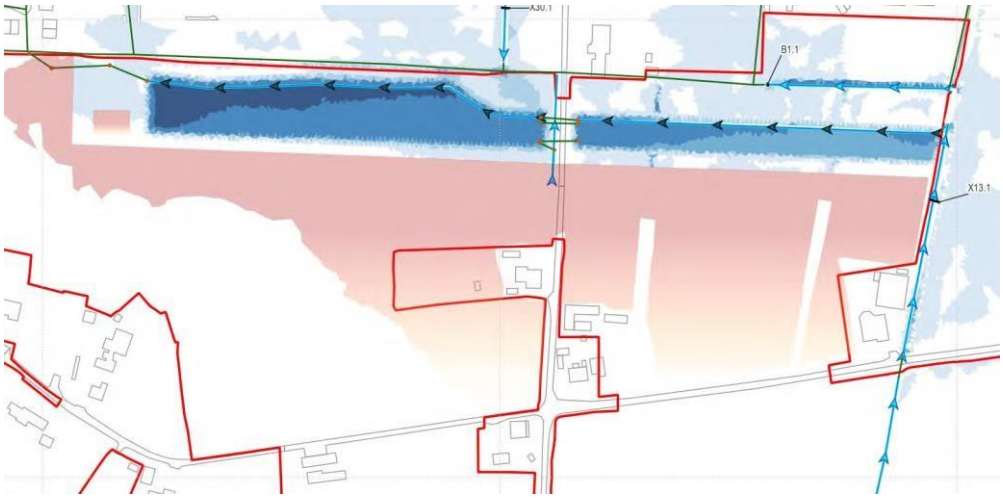
McCloy drawing titled "Proposed Daylighting and Reprofiling" Fig No M01852-01.

The flood basin as shown on the Illustrative Master Plan (marked as feature 4)

2.6 The drawing shows a flood basin with a capacity of 16,205 m3 Appendix 11.1 table 4.5. The estimated area of the flood basin is 400 x 20m .What is concerning is that water is channelled into the flood basin by employing raised earthworks to the south of the flood basin which are raised to a *minimum level of 0.63 m above the predicted 100 year event water level. Ref page 40 of appendix 11.1.* It is noted that no earthworks maximum height is given again demonstrating extreme design uncertainty. This statement leaves the developers with the freedom to raise earthworks significantly higher eg 1m+, with significant environmental detriment to the existing properties. This does not appear a credible solution given the impact the earthworks will have on existing property owners..

2.7 This artificial earth "berm" is not shown on the masterplan illustration. However a number of existing properties at the North end of the site are shown in the referenced McCloy drawing at the back of Appendix 11.1 partially or completely surrounded by raised earthworks. This is a wholly unacceptable proposal. The authors of the report only state a minimum elevation. The actual height of these earthworks could be far higher (1 m+). This will place these properties at significantly elevated risk of flooding and will adversely impact visual amenity.

2.8 The proposed arrangement is shown below extracted from the McCloy drawing.



Catchment B Flood Basin. The area shown in red is the raised earthworks. Note the existing properties that are totally or partially surrounded by the raised earthworks.

2.9 The design of the flood basin is such that it cannot gravity drain to Mill Brook via the Northern Culvert. What is proposed is a flow controlled pumping station. There is very little design information on the pumping station other than it will incorporate a duty and standby pump. If electrically powered it is critical that the sub-station providing the power is also flood protected. This requirement is not mentioned in the Masterplan documents.The Welsh Government Standard for the design construction and operation of surface water drainage systems 2018 states wrt pumped systems "*Because of the ongoing energy and maintenance requirements of pumping water and the risks associated with failure, pumping should be avoided where possible*"

2.10 The standard also states "*Where the drainage system is to be adopted the developer should ensure that the adopting organisation has agreed in principle to adopt the pumping station before putting in the planning application*" The appendix 11.1 section 5.5.1 simply states "It is *proposed* that the main piped system and pumping station will be adopted by United Utilities". It is not clear if any agreement is in place with United Utilities. Clarification on this matter is the subject of an EIR with united Utilities.

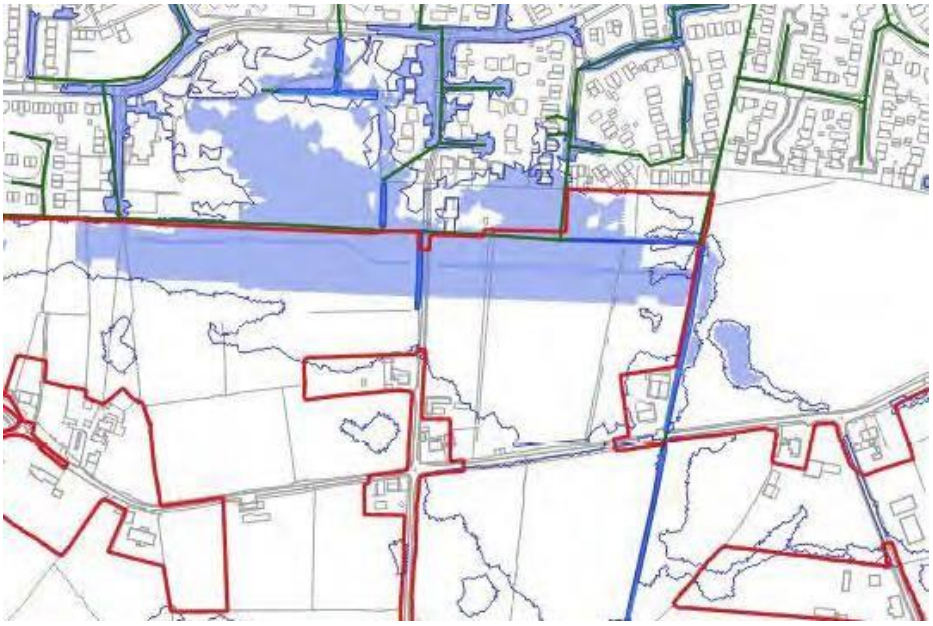
2.11 There is little evidence in the report of a proper analysis of the economic impact of pump system failure either through poor design or maintenance, and it is unclear who will be financially responsible. The impact of system failure will be profound effecting existing and development properties. The authors simply state there is a very low probability of both duty and standby pumps failing and in any case the capacity of the flood basin is sufficient to absorb all flood water runoff.
The paragraph below demonstrates that this is not true.

2.12 Assuming the current water runoff rate is 566 litres/sec for catchment B and the area when fully developed will consist of 50% impermeable structures such as houses, roads, parking, and gardens hydraulically isolated by road and housing foundations then the development run off rate for the 100 year event plus 40% global warming allowance is 566/0.5 = 1132 litres/sec = 4075 m3/hr. On this basis the flood basin has sufficient capacity to absorb runoff for 16205/4075 = 4 hours ~240 minutes. This is hardly sufficient as a one in 100 year flooding event is likely to last significantly longer than 4 hours. This capacity also appears insufficient to undertake emergency pump repairs should a common mode fault develop requiring either pump repairs, sump drainage or the installation of a diesel powered pump back up pump. In any case the proposed pumped outflow of 100 litres/sec which is hydrobraked, will have little impact in arresting the impact of predicted runoff water rates.

2.13 A Defra report published in 2002 "Extreme Rainfall and Flood recognition" provides data on extreme rainfall event durations from the 1930's to 2000 shown in table 3 of the report. It lists 60 events of which 32 were of duration between 3 and 60 hours with the average being 20 hours. Should durations of this nature occur for the 1 in 100 storm the majority of catchment B would be flooded after a few hours as the flood basin will have insufficient capacity, and as the outfall pumps are constrained by a hydrobrake to 100 litres per second, which appears insufficient to make any impact on draining a flood basin capacity of 16,205,000 litres.

2.14 Appendix 11.1 section 3.8.1 outlines a "Critical Duration Analysis" which is an attempt to establish the duration of a flooding event (one in thirty and one in one hundred events plus 40% global warming allowance) over which flooding levels are at a maximum. The analysis results in table 3.2 show this to be 360 min (six hours). The authors do not state the duration of the rainfall event which was employed as the basis of this analysis. This result does not appear credible as it appears likely that most extreme rainfall events will occur over a much longer duration than 6 hours. Also after four hours the flood basin protection will have failed rendering this analysis meaningless.

2.15 It is clear in the appendix 11.1 that the flood basin is designed to protect the site. What may not be apparent to the reader of the Masterplan documents is that the impact of the flood basin design is to considerably increase the risk of flooding to properties in Kingsfold to the north of the flood basin. The diagram below, next page, shows the impact of the proposed flood basin design on Kingsfold. It is unlikely that the residents of Kingsfold or the appropriate authorities are aware of this significantly enhanced flooding risk.



Note this figure given as Fig 4.15 in the Appendix 11.1 shows the flood basin filled and overflowing into Kingsfold in the case of a 1 in 100 year event plus a 40% global warming allowance. Note the raised earthworks to the immediate south of the flood basin "protect" the site at the expense of Kingsfold which has no protective earthworks. Note the diagram does not show the full extent of flooding in Kingsfold; and that the Penwortham Town Council Building appears to be impacted by flooding.

2.16 Not only has the flood basin been designed to flood Kingsfold in preference to the site it is also proposed to re-direct surface water that originates in Kingsfold and is currently managed via the Northern Culvert, to a more southerly culvert .
Para 6.5 of the Lees Roxborough report Appendix 11.1 states "it is proposed to redirect flows (from Kingsfold) currently entering the system from upstream outfall B (Northern Culvert) to downstream (outfall A) of the existing development (More southerly Culvert under Penwortham way) and hence reducing the volume of water reaching the most vulnerable area of site". In other words the proposal is to shift the current drainage route from Kingsfold to a more vulnerable upstream position on Mill Brook in order to reduce the volume of flow to the Northern Culvert and hence help protect the site, at the expense of Kingsfold. There is

also no mention of how this re-routing is to be achieved and whether the developers have the agreement of all landowners or the Utility company responsible.

3 The integrity of the hydrological model.

3.1 Appendix 11.1 section 3.10 deals with model validation. In this section the authors argue that pictures of "historic" flooding provided by "objectors" to the scheme in fact help validate the model. The authors imply that the two photos in question are from a one off historic event. By comparing the photos with what is predicted in the model they claim the model then accurately predicts such a "historic" event and proves the model is sound.

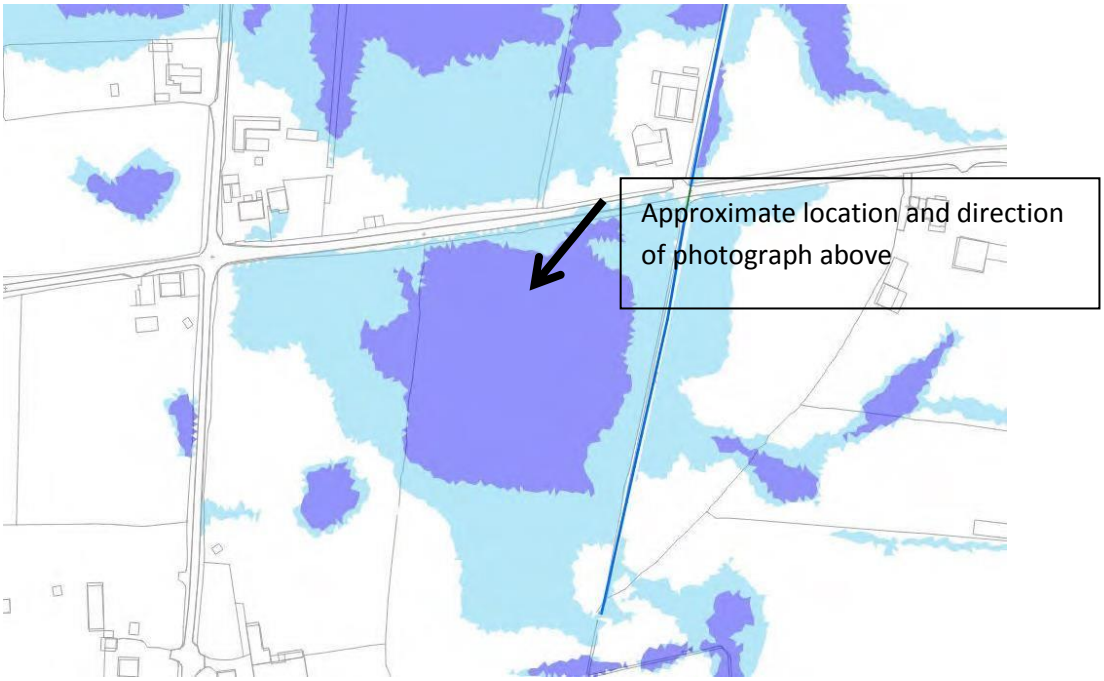


Figure 3-18: Predicted on-Site Flooding (3.3% & 1% AEP)

Light blue is the 1 in 100 year event (1% AEP) and the dark blue is the 1 in 30 year event (3.3% AEP)

They also use the second photo below to "validate" the model.

Figure 3-20: Predicted on-Site Flooding (3.3% 1% AEP).

The authors state;

"Model predictions have been reviewed at the two locations to form a degree of model validation; however no dates were provided for the photographs and therefore no historical rainfall data could be obtained to determine the performance of the model under the same rainfall conditions. **The model predicts a significant area of flooding at the locations of the photographs for the 30 year event that corresponds with the general outlines of flooding in the photographs** and in the absence of more detailed historical data upon which to carry out verification, the model is considered to be sufficiently accurate."

This statement beggars belief, in effect the authors are claiming that the flooding shown in the two photographs is as a result of a 1 in 30 year rainfall event, and thus the model correlates with observed flooding.

It is abundantly clear to the local residents that the flooding shown in the photographs occurs routinely and regularly with major flood events such as those shown in the photographs occurring at least once every five years, so it is false to claim this as a one in thirty year event as McCloy imply in their text.

This cynical misrepresentation of photographic evidence raises fundamental questions regarding the model accuracy and indeed the integrity of the whole report, as it appears to significantly underestimate the true extent of regular flooding that occurs in the development catchments.

3.2 Some additional observations regarding the assumptions underpinning the model

It appears that an assumption of 14% of the surface area of existing developments north of the site eg Kingsfold has been made to account for other impermenable surfaces eg driveways, footpaths, patios and parking. This appears to be a serious underestimation.

Extract from section 3.4.4 "The buildings are represented as porous polygons with a porosity of 0.1. This allows the building to impact the flow route whilst allowing a proportion of 'flow through' which would occur in the property via doorways and air bricks and venting etc.". In other words the model assumes that houses will be flooded and this beneficial impact has been accounted for in the model eg flooded houses increase the permeability of the development to water flow.

Extract from section 3.6

"No particular investigation has been made on the effect of land drainage, on the basis that the omission of field drainage provides conservative results."

"All culverts and surface water drainage networks are modelled as free flowing with no sedimentation or blockages modelled for purposes of the baseline assessment."

"No detailed flood data is available for accurate validation or calibration of the model (i.e. performance of the model prediction relative to a known rainfall magnitude and observed flood extent). The model is verified insofar as it ensures flooding is predicted in any areas where previous flooding has been recorded as discussed further in Section 3.10."

Regarding the last statement it is strange that this development has been proposed for many years yet in all that time there has been no effort to obtain metrological and flood data from the site.

Extract from section 3.7.3 ;

"In order to investigate the potential effect of the model downstream boundary, the downstream boundary level has been increased by 1.0 m. There was no measurable change to flood levels at the downstream site boundary."

The data from climate central ref picture below shows that the annual flood level predicted for 2050 will have a significant impact on the Ribble and potential water levels in Mill Brook shown crossing the A59 South of John Horrocks Way. It is not clear if projected coastal flooding has been accounted for in the analysis described in Appendix 11.1.

Extract from Appendix 11.1 section 3.7.6

"The use of dry clay soil parameters may underestimate flood levels for some flood events with more saturated antecedent conditions, however it is not possible to account for all antecedent conditions. It is considered suitable to assume dry antecedent conditions for design simulations."

Bizarrely the authors have employed a dry clay soil as the basis for their model which appears to contradict the statement given in section 3.4.7 "Ground conditions across the site were noted to be very wet and were typical of a poorly drained soil."

4. Responsibilities for Design and Maintenance of the Flood Management System.

The financial consequences of system failure through poor design or poor maintenance are significant. In none of the documents covering flooding and flood prevention is there any attempt to quantify the impact of system failure.

At this stage there appears to be a complex chain of third party contributors including

McCloy consulting, Lees Roxborough, LCC as Lead Local Flood Authority and Taylor Wimpey as developer. Each third party appears to incorporate a number of disclaimers into their reports. Responsibility for system failure appears deliberately opaque.

It is unclear who is financially accountable for errors and omissions should the design principles be proven to be flawed, as they appear to be.

The systems proposed require regular and thorough maintenance and it is not clear who will be directly accountable for maintenance errors and omissions and who will be responsible for the substantial costs.

5. Spoil Disposal.

It is assumed that the flood basin spoil some 20,000 tonnes will be employed to construct the raised bank to the South.

It is unclear how the spoil generated from the excavation of the attenuation basins and swale system to the west of the site will be managed. It is estimated that approximately 50,000 tonnes of impermeable boulder clay will need to be disposed of by transporting offsite or to other parts of the site.

If it is transported for use on site this implies that parts of the site will be raised significantly, increasing the flood risk for existing dwellings

This spoil volume is equivalent to 2,000 truck trips that will occur during construction. It is unclear how this problem will be managed, however the potential environmental impact will be significant

6. Sewage treatment and dispersal.

Although this review focusses on the management of surface water run-off from site it is worth also reflecting on another key element of development infrastructure seldom given sufficient consideration when planning applications of this nature are submitted. This relates to the adequate provision of sewage treatment for the development.

We estimate that the population increase associated with the committed developments in South Ribble will be in the region of 6,400 people. The majority of this population increase is likely to come from outside the South Ribble region.

For this planning application development the population of the site assuming 1100 dwellings is likely to be in the region of 3,600 people, again with the majority coming from outside the South Ribble region.

This is significant relative to the population of South Ribble measured as 110,527 in 2018.

The provider of the sewage treatment in the region is United Utilities. No doubt they will claim that there is adequate capacity to treat the arising sewage from the committed developments and this application in particular.

However it is worth reflecting on the fact that United Utilities is the Company that discharges the most sewage to rivers and the sea in England, having amassed a total of 726,450 hours of routine discharges of raw sewage in a total of 113,940 events during 2020.

The sewage treatment infrastructure in NW England is in a shocking state and is wholly inadequate for the intended purpose.

The committed developments in South Ribble and the current planning applications for the Lanes will significantly increase the volume and frequency of such environmentally damaging discharges as the current sewage treatment systems have insufficient capacity as evidenced by Unitied Utilities appalling record in 2020.

On the lack of adequate sewage treatment facilities alone, no new planning applications should be agreed until United Utilities can guarantee sufficient sewage treatment capacity in the region, as demonstrated by the absence of routine discharges to river and sea.

APPENDIX 3

LCC Education statutory consultee response to the Lanes planning application 07/2021/00886/ORM

We have been reviewing the email response from the LCC Schools Planning group dated 8th October 2021 and the accompanying Education Contribution Assessment dated 17th September 2021.

We have a number of queries relating to the demand for primary school places arising from committed developments in the vicinity of the proposed site, and from the two planning applications 07/2021/00886/ORM and 07/2021/00887/ORM.

We have similar concerns regarding Secondary and Pre-school education provision.

- **Background information**

The committed developments considered to impact the proposed development are listed below. They were used in the transport assessment completed by Vectos

Committed developments employed in the Vectos TA

ID	Name	Dwellings	Employment space m2
1	Croston Road	174 (350)	N/A
2	Croston Road North	400	N/A
3	Penwortham Mills	385	N/A
4	Gas Works	248 (281)	N/A
5	Cuerden	210	205,600
6	Test track	950	28,000

Q1 Can LCC please confirm which of the committed developments listed above have been employed to predict the demand for primary and schools in the proposed development catchment?

Q2 under the section "Pupil Yield" there is reference made to a "detailed research project carried out during 2012" through which pupil yield is calculated for a bedroom mix within a development. Could LCC please provide a copy of this research paper?

- **Assessment of Primary School Pupil Yield**

LCC state that as the developer has not provided bedroom numbers for the development LCC apply a pupil yield appropriate for a four bedroom development.

The yield data employed for the four bedroom case is given below and extracted from the Education Contribution Assessment document.

Development details

Number of bedrooms	Yield applied per dwelling	Number of dwellings	Primary yield for this development
1	0.01		
2	0.07		
3	0.16		
4	0.38	920	349.6
5	0.44		
Totals		920	(349.6) 350 Places

As part of our research on the subject of new development population demographics we have found a number of useful references including this one;

"Population Forecasting Study; Cognisant research for Northamptonshire County Council 2014."

This was a comprehensive survey based research project with 2,985 addresses in new developments chosen at random using a mix of face to face interview and postal questionnaire to obtain the required information. The intent of the research was to establish robust Pupil Product Ratios (PPR's) in order to yield accurate numbers of school age children generated by a new housing development.

As a result of that research data has been produced on how many school age children are resident in a new development dwelling as a function of bedroom number and also how the provision of social or affordable housing changes this metric.

Cognisant research study; Childen by age distribution as a function of bedroom number

Number of bedrooms in dwelling	1	2	3	4
Pre School Children	0	0.30	0.32	0.34
Primary School Children	0	0.13	0.32	0.37
Secondary School Children	0	0.03	0.17	0.22
Post 16's	0	0.03	0.07	0.09

Cognisant research study; Children by age distribution as a function of bedroom number for social housing

Number of bedrooms in dwelling	1	2	3	4
Pre School Children	0	0.52	0.63	0.92
Primary School Children	0	0.19	0.83	0.58
Secondary School Children	0	0.04	0.41	1.00
Post 16's	0	0.05	0.19	0.58

As LCC are aware the application includes for the provision of 30% affordable homes. Using a suitably weighted "yield" to account for affordable homes given in the Cognisant research the following adjusted yield is apparent. 0.7 x 0.38 + 0.3 x 0.58 = 0.44.

As LCC are aware the total number of homes from the two planning applications is 1,100.

Therefore the total yield of primary school children accounting for the provision of 30% affordable housing and assumption of 100% four bedroom homes is 484 not 350.

It should also be noted that from the Cognisant research the maximum "yield" of primary school children actually occurs in three bedroom homes. The assertion made in the LCC response that the choice of four bedrooms for the analysis presents a worst case scenario is not true according to the Cognisant research.

In fact if a more realistic assumption of 10 % two bedroom, 50% three bedroom and 40% four bedroom split is made for the development, the population of primary school children for the 1100 home Lanes development increases to 523. This is significantly higher that the estimate made in your response.

Q3 In the light of our findings are LCC prepared to reconsider the response that appears to seriously underestimate primary school demand from the development by neglecting the impact of affordable housing.

- **Dependent Development; Impact on primary School places**

Your response identifies 26 primary school places taken by dependent developments. We are concerned that many of the primary schools listed in the response are in fact closer to a large 600+ home committed development being built off Flensburg Way/Croston Road and to a committed housing development at Penwortham Mills at 633 homes, than they are to the development site access road. It is also worth noting that the Test Track housing development at 950 homes is only located 2.5 miles from the proposed site entrance.

In addition there are many small committed housing developments, 127 in total, in the area of Hutton, Hoole, Longton, New Longton and Howick parishes that will also be competing for primary school places. They do not appear to feature in the list of approved or pending housing developments given in the response The committted developments are identified in the SRBC Housing Position Statement 2020.

These committed developments provide the potential for (600 + 633 +127) x 0.38 primary school children = 517.

Of the fifteen listed primary schools at least five are closer to large committed developments than to the development site so to take a prudent position this dependent development demand is reduced to one third eg 172 primary places

It is difficult to reconcile your figure of 26 primary places from dependent developments with the figure of 172 calculated above.

Q4 Given the demand for primary school places from committed developments in the catchment area of many of the primary schools listed, are LCC prepared to reconsider the response that appears to seriously underestimate primary school demand from committed developments?

- **The impact of Population demographics in South Ribble and Preston**.

In your response it is argued that population data from the region indicates that for many of the primary schools listed pupil numbers decline in 2026 relative to the current roll.

We are struggling to reconcile this assumption with recent housing market assessments such as "Central Lancashire Strategic Market Assessment" by GL Hearn dated September 2017 which concludes that the population of South Ribble and Preston will grow by 2.9% and 3.1% respectively between 2014 and 2034. The Central Lancashire Housing study by Iceni dated October 2019 also indicates that household growth in South Ribble will increase by 3.3% from 2019 to 2029.

Q5 Given this data from two recent housing studies based on regional demographics are LCC prepared to reconsider the response that appears to contradict the findings of these studies by significantly reducing pupil numbers for many primary schools listed from current to 2026?

- ***Conclusion***

Our analysis indicates a serious shortfall in primary school places.

3985 places available as a result of school expansion

3698 roll number by assuming population of primary school children does not change (conservative)

Leaving a capacity of 287 places

Assume 172 primary places taken by local committed developments (conservative)

Leaves a total of 115 places available for the Lanes development

523 places required by the Lanes at 1100 homes and 30% affordable housing

Shortfall of 408 primary places.

This indicates that there may be a serious issue developing and we think this merits a thorough and comprehensive review, as the implications of getting this analysis wrong are profound.

Appendix 2 - KBLR response to the Masterplan Flood Risk and Drainage Strategy and Appendix 11.1 Lee Roxborough and McCloy Flood Risk Assessment

Executive Summary

- The Flooding assessment Appendix 11.1 fails to state what the uncontrolled surface water runoff will be for the development. This information is essential to set a design baseline. (para 1.2)
- By making reasonable assessment of impervious surfaces it is estimated that the post development run off from catchment A will be 4034 m3/hr and from catchment B 4076 m3/hr. (para 1.3, 1.4)
- In order to control this excessive run off rate the developer proposes a large flow-controlled gravity draining attenuation basin to the west of the site for catchment A, and a large flood basin with flow controlled pumped outflow to the North of the site for catchment B. (para 2.1, 2.2, 2.3, 2.4, 2.5)
- For catchment A the developer proposes that the new dwellings will have raised foundations with a minimum height of 0.15 m, however, tellingly the developer remains silent on the maximum height of foundations. Because of the need to dispose of 40,000 cubic metres of excavation spoil from the attenuation basin and associated swales it is almost certain that large areas of the site will be raised to the detriment of existing dwellings. (para 2.3).
- For existing dwellings at ground level this proposal will considerably increase flood risk relative to those with raised foundations. (para 2.3)
- The developer states that property in catchment A will be protected up to a 1 in 30-year rainfall event. For structures designed for a 60-year life those structures will on average experience two flooding events in that time. Data produced by the Met office states that the probability of 1 in 30 flooding events has increased for all regions of the UK during winter and for Dorset and the North West of England in particular for summer periods, so it is highly likely that these properties will experience more than two flooding events on average in 60 years. (para 2.3)
- The catchment B flood basin is designed with significantly raised earthworks on the southern side of the basin. Again, the developer states a minimum height of 0.63 m above the 1 in 100-year flood level. Note again no maximum is quoted and that the height is not relative to a ground level datum but to a flood level. It is quite possible that the earthwork berm could be 1-2 m in height. Note that this raised earthwork structure completely or partially surrounds a number of existing properties. Those properties will be at significantly increased risk of flooding and the environmental and visual impact will be severe. (para 2.6, 2.7,2.8)
- A graphic is provided in Appendix 11.1 that shows in a 1 in 100 flooding event plus a 40% global warming allowance the flood basin has insufficient capacity and it preferentially floods Kingsfold which is unprotected because of the absence of protective earthworks on the north side of the flood basin. Indeed, it appears that the raised earthworks to the South of the flood basin are designed to protect the site to the South whilst sacrificing Kingsfold to the North. (para 2.8, 2.15)
- The flood basin has a capacity of 16,205 cubic metres. At a run off rate of 4076 cubic metres per hour the basin will flood in just under four hours. It is suspected that this is the reason no post development run off rates are provided in any of the documents as this capacity appears inadequate. The pumps are limited to a rate of 100 litres/sec so they will have little impact on this flooding time. It is reported in a Defra/Environment Agency paper “Extreme

Rainfall and Flood Event Recognition" Aug 2002 that for the majority of extreme rainfall events measured from 1930 to 2000, the duration ranged from 3-60 hours with the average ~20 hours. This data indicates that the flood basin design will be ineffective for the majority of extreme rainfall events as it has insufficient capacity. (para 2.13, 2.14)

- The use of a pumped outflow from the flood basin provides another system vulnerability and is likely to be in continuous use to maintain a drained basin in the event that an extreme rainfall event should occur. If these pumps are electrically driven the electrical supply also needs flood protection, and no mention of this is made in the report. Indeed, the Welsh Government states that for groundwater drainage solutions "*because of the ongoing energy and maintenance requirements of pumping water and the risks associated with failure pumping should be avoided where possible"* (para 2.9,2.10). Certainly, the use of a pumped discharge system is not sustainable.
- There is no assessment, in any of the Flooding documentation, of the impact of system failure either through poor design or maintenance. Indeed, it unclear who will be responsible for the costs of system failure should this occur. The lack of clear accountability for system failure resonates with the situation apparent for the Grenfell Tower tragedy, with multiple design authorities involved but no clear accountability. (para 2.11 and section 4)
- There appears to be significant shortcomings regarding the hydrological model employed in the flood predictions. In the section of the appendix dealing with model validation the authors claim that the pictures of extreme flooding posted on the internet by scheme objectors represent a historic 1 in 30-year rainfall event and the model accurately predicts the extent of flooding observed in the photographs. Any local resident will point out that the flooding observed in the photographs occurs regularly and is not a 1 in 30-year event. This then raises serious questions regarding the integrity of the model and its ability to predict current regular flooding and a true 1 in 30-year event. (para 3.1, 3.2)

- The authors also state "No detailed flood data is available for accurate validation or calibration of the model" yet this proposal has been promoted by developers since 2015. It is therefore remarkable that in the intervening period no attempt has been made to collect this critical data. (para 3.2)
- Spoil disposal from the excavation of the attenuation basin and swale system to the west of the site will generate approximately 40,000 tonnes of waste boulder clay, requiring the equivalent of approximately 2,000 truck trips. This has the potential to generate a significant emission and transport problem. It is unclear how the developers propose to manage this spoil generation. (section 5)

- The utility company responsible for sewage treatment in the region is United Utilities. This company has a shocking record of underinvestment and routine discharge of untreated sewage to river and sea; indeed, it has the worst record in England. This is symptomatic of a local sewage treatment infrastructure that is not fit for purpose. On this basis alone no new housing development applications should be approved in South Ribble until United Utilities can guarantee that routine discharges of untreated sewage to river and sea have been halted. Approving this application is almost certain to increase the frequency and duration of such discharges. This is totally unacceptable as it is maximising shareholder profit at the expense of our environment. (Section 6).

Setting the baseline

1.1 Existing run off rates for the two main site catchment areas for the site, catchment A and catchment B are estimated by employing data from Figure 4.1 and Figure 4.4 and table 4.2, 4.3 and 4.4. Figures 4.1 and 4.4 are overlaid to provide a surface area weighted existing run off rate. Data for the 1 in 100-year rainfall event plus 40% global warming contingency is used.

1.2 Catchment B, 23.1 Ha total area, is covered entirely by existing catchment 3 and therefore has a total existing runoff rate of 23.1/54.5 x1335 litres/sec = 566 litres/sec = 2038 m3/hr.

1.3 Catchment A, 54 Ha total area, area consists of approximately 50% existing in catchment 3, 30% in catchment 2 and 10% in catchment 1 giving a weighted run off rate of ((0.5 x1335) +(0.3 x376.5) +(0.1 x 184.3)) x 54/77.4 = 560 litres/sec = 2017 m3/hr

1.4 Appendix 11.1 states “Uncontrolled flows from the development will exceed existing run off rates” but the report fails to state what they would be.

1.5 Data from a drainage strategy paper for a site off Blackburn Road Longridge indicates that for a site of this nature with a total development area of 30,000 m2, buildings occupy 10,090 m2 and roads footpaths and parking occupy 12,310 m2. Therefore, the percentage impervious surface is 22,400/30,000 = 75%. Leaving a permeable surface for run off attenuation equivalent to 25% of the development area.

1.6 Taking a position assuming 50% permeable land remains for both catchments post development, the development run off flow is likely to be at least double the existing run off flow, which for catchment A is 2017/0.5 m3/hr or 4034 m3 per hour and catchment B is 2038/0.5 m3/hr or 4076 tonnes per hour. This is fundamental baseline information which was excluded from Appendix 11.1.

1.7 The site is essentially landlocked with only one watercourse available for drainage namely Mill Brook.

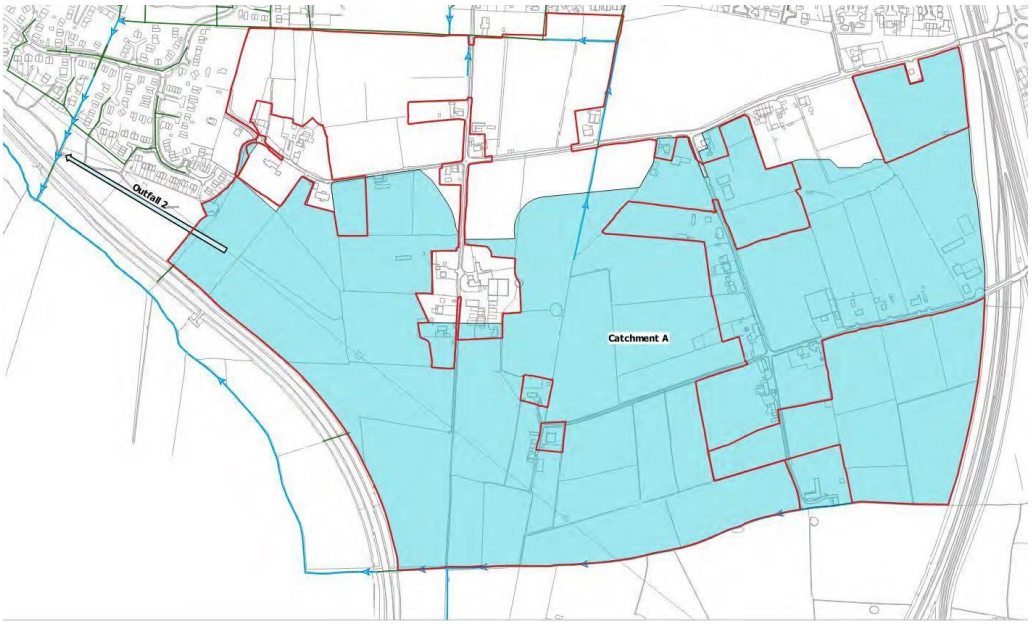
1.8 Mill Brook also serves to drain surface water from existing developments in Kingsfold and Penwortham and from the surface of the A582 and the Penwortham Bypass and from existing properties on site. There has been no attempt to calculate the run off flows from these existing sources for the I in 100-year design scenario above, and whether Mill Brook is capable of functioning under such circumstances and what the water levels are likely to be.

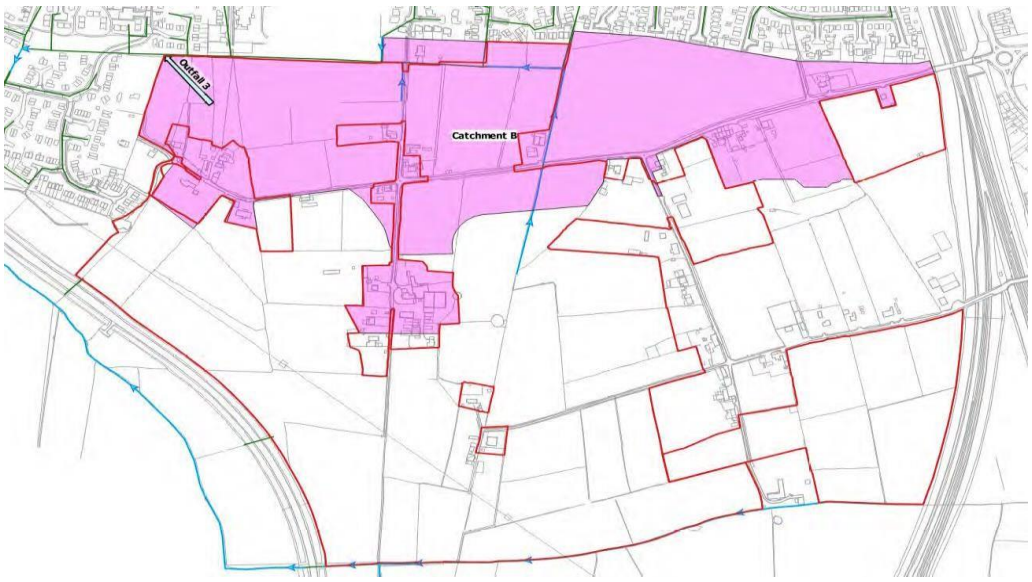
1.9 The developers recognise that site run off needs to be controlled.

2 The proposed solution.

2.1 The developers propose the use of two outflows from site both draining to Mill Brook. One is to the North of Kingsfold using the Northern Tributary Boundary Culvert (Outfall 3). The second is to the South of Kingsfold where a drainage culvert crosses Penwortham Way (Outfall 2).

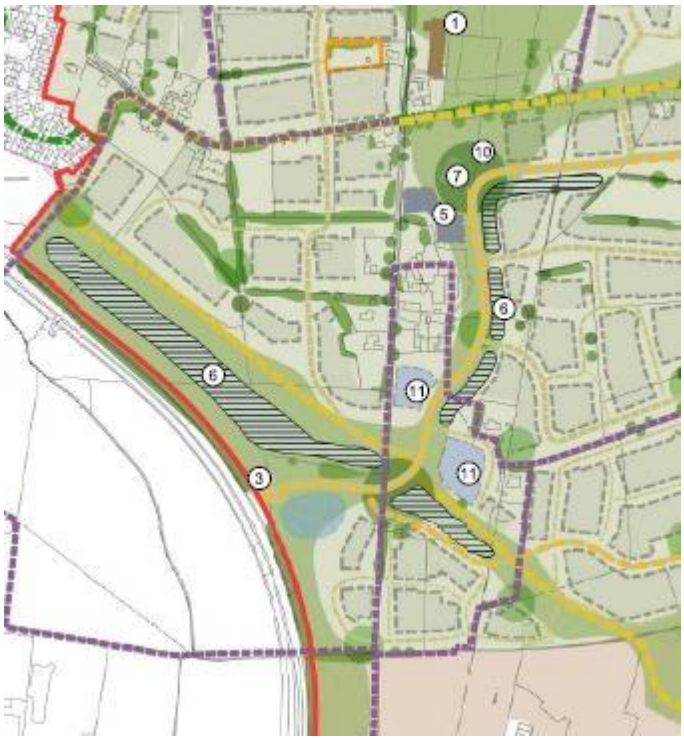
2.2 These outfalls will serve two drainage catchment areas A and B. Catchment B is the area of site that has the seriously challenging flooding risk and drainage conditions and will be drained to Mill Brook via Outfall 3 (Northern Culvert). Catchment A is 54 Ha and existing drainage is 560 litres/sec for the 100 year plus 40% event. It is proposed to drain this via Outfall 2. Catchment B is 23.1 Ha and has a drainage rate estimated at 566 litres/sec for the 100 year plus 40% event. Because of the site topography and geology both catchments face considerable flooding risk. The diagrams below show catchment details.





2.3 The proposed flood mitigation solution for catchment A is a large attenuation basin with an interconnected swale system. The development floor levels will be set to a ***minimum*** of 0.15 m above the ground level. The lack of any information on the likely maximum foundation elevation indicates extreme design uncertainty. In some areas it is likely that foundations could be raised to 0.5 m. Houses and hard surfaces will have piped surface drainage systems that will prevent flooding up to a 1 in 30-year event. That equates to a yearly probability of such an event occurring as 3.33 %. As these houses will be built to exist for a

minimum of 60 years each property in this catchment is likely to experience on average two flooding events over sixty years. *The probability of flooding for existing properties in this catchment without raised foundations is likely to be far higher.* It is also noted that these "thirty year" events are becoming far more frequent as indicated in the met office report to Ofwat dated July 2010.It states all winter rainfall events for all areas of the UK are predicted to become more frequent, and that for the 20, 30 ,50 and 100 year events the biggest summer increases are projected to occur over both Dorset and North-West England



Catchment A attenuation ponds and swale system shown as feature 6.

2.4 The outflow from the catchment A attenuation basin is controlled to 100 litres/sec using a hydrobrake. These structures are vulnerable to silting and require regular maintenance. The reason for the outflow restriction is to prevent excessive demand on the outfall to Mill Brook. It is estimated that the attenuation basin has a surface area of approximately 600 x 25 m. Assuming it will be 2 m deep approximately 30,000 cubic metres of clay spoil will need to be disposed of either
on or off site. Assuming the catchment A attenuation basin capacity is 30,000 cubic metres will take approximately 7.5 hours to fill. This appears insufficient given the likely duration of the 1 in 100-year rainfall event, please refer to para 2.13 below. The total spoil resulting from the excavation of the attenuation basin and the swales is over 40,000 cubic metres. If disposed of on site, the implication is that significant areas of the site will be raised with an increased flood risk for the existing dwellings in the vicinity. Vague references are made in the documentation to the need to raise parts of the site, but no specific values are given.

2.5 The proposed flood mitigation for catchment B is far more complex because of the site topography and drainage catchment area. It is concluded in the appendix 11.1 that there is insufficient gradient for gravitational flow from an attenuation basin as for catchment A. The approach proposed is to create an artificial flood basin at the north boundary of the site

shown as feature 4 on the Illustrative Master Plan. The scheme is also shown in figure 4.12 of Appendix 11.1 and on

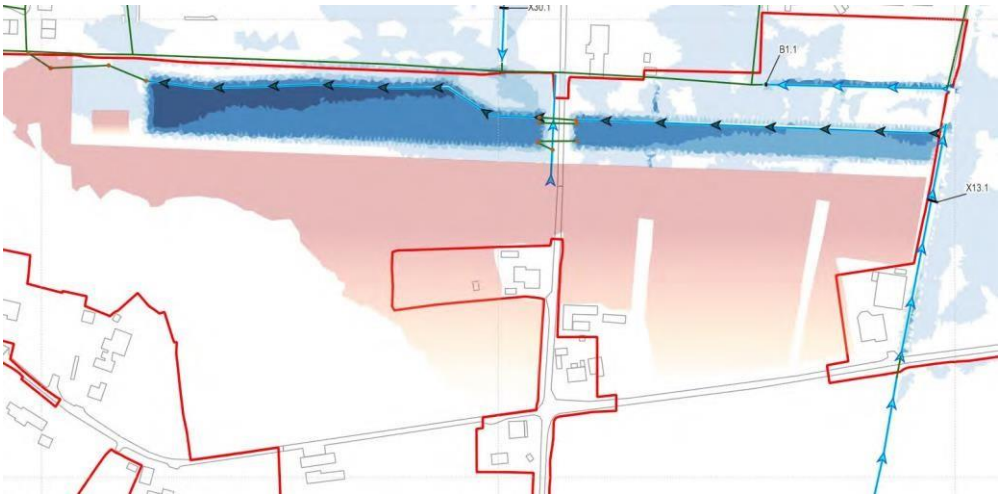
McCloy drawing titled “Proposed Daylighting and Reprofiling” Fig No M01852-01.

The flood basin as shown on the Illustrative Master Plan (marked as feature 4)

2.6 The drawing shows a flood basin with a capacity of 16,205 m3 Appendix 11.1 table 4.5. The estimated area of the flood basin is 400 x 20m. What is concerning is that water is channelled into the flood basin by employing raised earthworks to the south of the flood basin which are raised to a *minimum level of 0.63 m above the predicted 100-year event water level. Ref page 40 of appendix 11.1.* It is noted that no earthworks maximum height is given again demonstrating extreme design uncertainty. This statement leaves the developers with the freedom to raise earthworks significantly higher e.g. 1m+, with significant environmental detriment to the existing properties. This does not appear a credible solution given the impact the earthworks will have on existing property owners.

2.7 This artificial earth “berm” is not shown on the masterplan illustration. However, a number of existing properties at the North end of the site are shown in the referenced McCloy drawing at the back of Appendix 11.1 partially or completely surrounded by raised earthworks. This is a wholly unacceptable proposal. The authors of the report only state a minimum elevation. The actual height of these earthworks could be far higher (1 m+). This will place these properties at significantly elevated risk of flooding and will adversely impact visual amenity.

2.8 The proposed arrangement is shown below extracted from the McCloy drawing.



Catchment B Flood Basin. The area shown in red is the raised earthworks. Note the existing properties that are totally or partially surrounded by the raised earthworks.

2.9 The design of the flood basin is such that it cannot gravity drain to Mill Brook via the Northern Culvert. What is proposed is a flow controlled pumping station. There is very little design information on the pumping station other than it will incorporate a duty and standby pump. If electrically powered it is critical that the sub-station providing the power is also flood protected. This requirement is not mentioned in the Masterplan documents. The Welsh Government Standard for the design construction and operation of surface water drainage systems 2018 states wrt pumped systems "*Because of the ongoing energy and maintenance requirements of pumping water and the risks associated with failure, pumping should be avoided where possible*"

2.10 The standard also states "*Where the drainage system is to be adopted the developer should ensure that the adopting organisation has agreed in principle to adopt the pumping station before putting in the planning application*" The appendix 11.1 section 5.5.1 simply states "It is *proposed* that the main piped system and pumping station will be adopted by United Utilities". It is not clear if any agreement is in place with United Utilities. Clarification on this matter is the subject of an EIR with united Utilities.

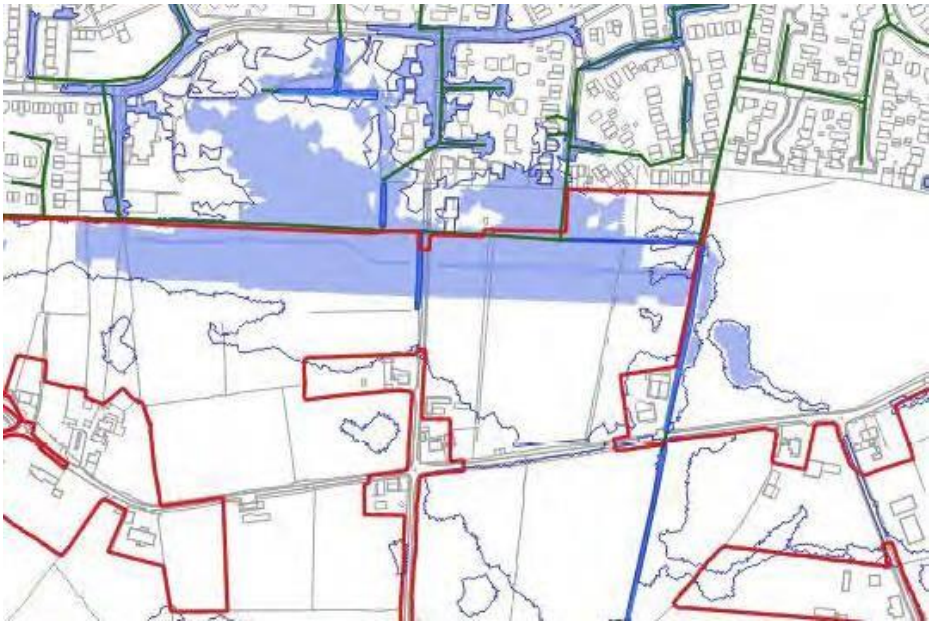
2.11 There is little evidence in the report of a proper analysis of the economic impact of pump system failure either through poor design or maintenance, and it is unclear who will be financially responsible. The impact of system failure will be profound effecting existing and development properties. The authors simply state there is a very low probability of both duty and standby pumps failing and in any case the capacity of the flood basin is sufficient to absorb all flood water runoff.
The paragraph below demonstrates that this is not true.

2.12 Assuming the current water runoff rate is 566 litres/sec for catchment B and the area when fully developed will consist of 50% impermeable structures such as houses, roads, parking, and gardens hydraulically isolated by road and housing foundations then the development run off rate for the 100 year event plus 40% global warming allowance is 566/0.5 = 1132 litres/sec = 4075 m3/hr. On this basis the flood basin has sufficient capacity to absorb runoff for 16205/4075 = 4 hours ~240 minutes. This is hardly sufficient as a one in 100-year flooding event is likely to last significantly longer than 4 hours. This capacity also appears insufficient to undertake emergency pump repairs should a common mode fault develop requiring either pump repairs, sump drainage or the installation of a diesel-powered pump back up pump. In any case the proposed pumped outflow of 100 litres/sec which is hydrobraked, will have little impact in arresting the impact of predicted runoff water rates.

2.13 A Defra report published in 2002 "Extreme Rainfall and Flood recognition" provides data on extreme rainfall event durations from the 1930's to 2000 shown in table 3 of the report. It lists 60 events of which 32 were of duration between 3 and 60 hours with the average being 20 hours. Should durations of this nature occur for the 1 in 100 storm the majority of catchment B would be flooded after a few hours as the flood basin will have insufficient capacity, and as the outfall pumps are constrained by a hydrobrake to 100 litres per second, which appears insufficient to make any impact on draining a flood basin capacity of 16,205,000 litres.

2.14 Appendix 11.1 section 3.8.1 outlines a “Critical Duration Analysis” which is an attempt to establish the duration of a flooding event (one in thirty and one in one hundred events plus 40% global warming allowance) over which flooding levels are at a maximum. The analysis results in table 3.2 show this to be 360 min (six hours). The authors do not state the duration of the rainfall event which was employed as the basis of this analysis. This result does not appear credible as it appears likely that most extreme rainfall events will occur over a much longer duration than 6 hours. Also, after four hours the flood basin protection will have failed rendering this analysis meaningless.

2.15 It is clear in the appendix 11.1 that the flood basin is designed to protect the site. What may not be apparent to the reader of the Masterplan documents is that the impact of the flood basin design is to considerably increase the risk of flooding to properties in Kingsfold to the north of the flood basin. The diagram below, next page, shows the impact of the proposed flood basin design on Kingsfold. It is unlikely that the residents of Kingsfold or the appropriate authorities are aware of this significantly enhanced flooding risk.



Note this figure given as Fig 4.15 in the Appendix 11.1 shows the flood basin filled and overflowing into Kingsfold in the case of a 1 in 100-year event plus a 40% global warming allowance. Note the raised earthworks to the immediate south of the flood basin “protect” the site at the expense of Kingsfold which has no protective earthworks. Note the diagram does not show the full extent of flooding in Kingsfold; and that the Penwortham Town Council Building appears to be impacted by flooding.

2.16 Not only has the flood basin been designed to flood Kingsfold in preference to the site it is also proposed to re-direct surface water that originates in Kingsfold and is currently managed via the Northern Culvert, to a more southerly culvert.
Para 6.5 of the Lees Roxborough report Appendix 11.1 states “it is proposed to redirect flows (from Kingsfold) currently entering the system from upstream outfall B (Northern Culvert) to downstream (outfall A) of the existing development (More southerly Culvert under Penwortham way) and hence reducing the volume of water reaching the most vulnerable area of site”. In other words, the proposal is to shift the current drainage route from Kingsfold to a more vulnerable upstream position on Mill Brook in order to reduce the volume of flow to the Northern Culvert and hence help protect the site, at the expense of Kingsfold. There is

also no mention of how this re-routing is to be achieved and whether the developers have the agreement of all landowners or the Utility company responsible.

3 The integrity of the hydrological model.

3.1 Appendix 11.1 section 3.10 deals with model validation. In this section the authors argue that pictures of “historic” flooding provided by “objectors” to the scheme in fact help validate the model. The authors imply that the two photos in question are from a one-off historic event. By comparing the photos with what is predicted in the model they claim the model then accurately predicts such a “historic” event and proves the model is sound.

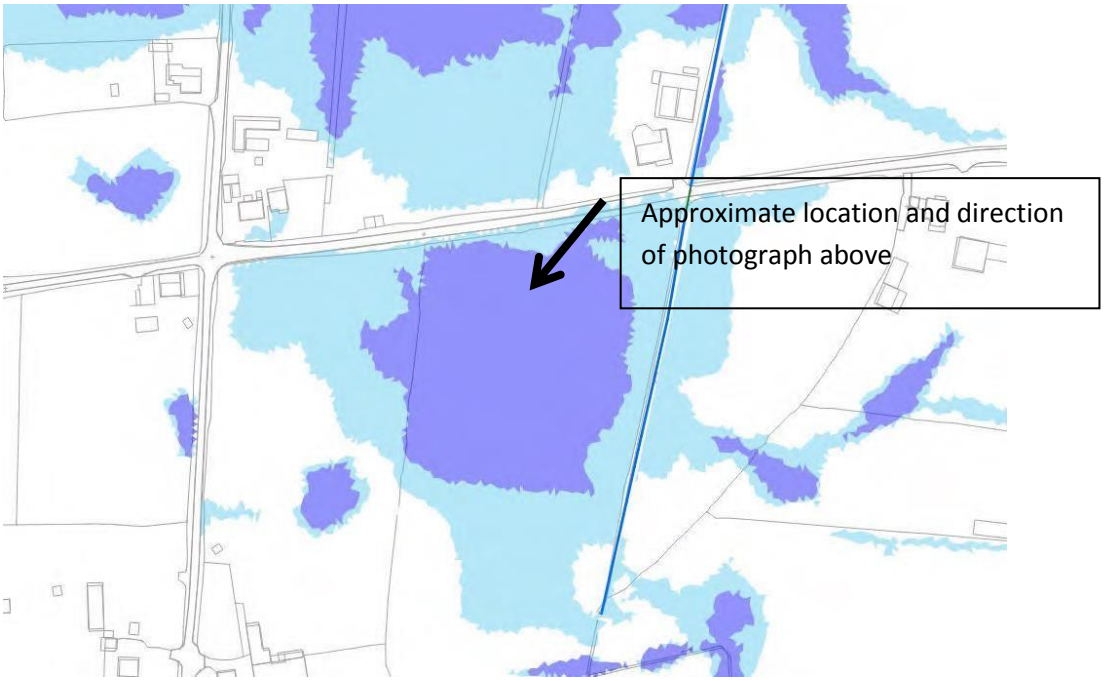


Figure 3-18: Predicted On-Site Flooding (3.3% & 1% AEP)

Light blue is the 1 in 100-year event (1% AEP) and the dark blue is the 1 in 30-year event (3.3% AEP)

They also use the second photo below to “validate” the model.

Figure 3-20: Predicted On-Site Flooding (3.3% 1% AEP).

The authors state;

"Model predictions have been reviewed at the two locations to form a degree of model validation; however, no dates were provided for the photographs and therefore no historical rainfall data could be obtained to determine the performance of the model under the same rainfall conditions. **The model predicts a significant area of flooding at the locations of the photographs for the 30-year event that corresponds with the general outlines of flooding in the photographs** and in the absence of more detailed historical data upon which to carry out verification, the model is considered to be sufficiently accurate."

This statement beggar's belief, in effect the authors are claiming that the flooding shown in the two photographs is as a result of a 1 in 30-year rainfall event, and thus the model correlates with observed flooding.

It is abundantly clear to the local residents that the flooding shown in the photographs occurs routinely and regularly with major flood events such as those shown in the photographs occurring at least once every five years, so it is false to claim this as a one in thirty-year event as McCloy imply in their text.

This cynical misrepresentation of photographic evidence raises fundamental questions regarding the model accuracy and indeed the integrity of the whole report, as it appears to significantly underestimate the true extent of regular flooding that occurs in the development catchments.

3.2 Some additional observations regarding the assumptions underpinning the model

It appears that an assumption of 14% of the surface area of existing developments north of the site e.g. Kingsfold has been made to account for other impermeable surfaces e.g. driveways, footpaths, patios and parking. This appears to be a serious underestimation.

Extract from section 3.4.4 "The buildings are represented as porous polygons with a porosity of 0.1. This allows the building to impact the flow route whilst allowing a proportion of 'flow through' which would occur in the property via doorways and air bricks and venting etc.". In other words, the model assumes that houses will be flooded, and this beneficial impact has been accounted for in the model e.g. flooded houses increase the permeability of the development to water flow.

Extract from section 3.6

"<u>No particular investigation has been made on the effect of land drainage</u>, on the basis that the omission of field drainage provides conservative results."

"<u>All culverts and surface water drainage networks are modelled as free flowing</u> with no sedimentation or blockages modelled for purposes of the baseline assessment."

"<u>No detailed flood data is available for accurate validation or calibration of the</u> <u>model</u> (i.e. performance of the model prediction relative to a known rainfall magnitude and observed flood extent). The model is verified insofar as it ensures flooding is predicted in any areas where previous flooding has been recorded as discussed further in Section 3.10."

Regarding the last statement it is strange that this development has been proposed for many years yet in all that time there has been no effort to obtain metrological and flood data from the site.

Extract from section 3.7.3;

“In order to investigate the potential effect of the model downstream boundary, the downstream boundary level has been increased by 1.0 m. There was no measurable change to flood levels at the downstream site boundary.”

The data from climate central ref picture below shows that the annual flood level predicted for 2050 will have a significant impact on the Ribble and potential water levels in Mill Brook shown crossing the A59 South of John Horrocks Way. It is not clear if projected coastal flooding has been accounted for in the analysis described in Appendix 11.1.

Extract from Appendix 11.1 section 3.7.6

“The use of dry clay soil parameters may underestimate flood levels for some flood events with more saturated antecedent conditions, however it is not possible to account for all antecedent conditions. It is considered suitable to assume dry antecedent conditions for design simulations.”

Bizarrely the authors have employed a dry clay soil as the basis for their model which appears to contradict the statement given in section 3.4.7 “Ground conditions across the site were noted to be very wet and were typical of a poorly drained soil.”

4. Responsibilities for Design and Maintenance of the Flood Management System.

The financial consequences of system failure through poor design or poor maintenance are significant. In none of the documents covering flooding and flood prevention is there any attempt to quantify the impact of system failure.

At this stage there appears to be a complex chain of third-party contributors including

McCloy consulting, Lees Roxborough, LCC as Lead Local Flood Authority and Taylor Wimpey as developer. Each third party appears to incorporate a number of disclaimers into their reports. Responsibility for system failure appears deliberately opaque.

It is unclear who is financially accountable for errors and omissions should the design principles be proven to be flawed, as they appear to be.

The systems proposed require regular and thorough maintenance and it is not clear who will be directly accountable for maintenance errors and omissions and who will be responsible for the substantial costs.

5. Spoil Disposal.

It is assumed that the flood basin spoil some 20,000 tonnes will be employed to construct the raised bank to the South.

It is unclear how the spoil generated from the excavation of the attenuation basins and swale system to the west of the site will be managed. It is estimated that approximately 50,000 tonnes of impermeable boulder clay will need to be disposed of by transporting offsite or to other parts of the site.

If it is transported for use on site this implies that parts of the site will be raised significantly, increasing the flood risk for existing dwellings

This spoil volume is equivalent to 2,000 truck trips that will occur during construction. It is unclear how this problem will be managed, however the potential environmental impact will be significant

6. Sewage treatment and dispersal.

Although this review focusses on the management of surface water run-off from site it is worth also reflecting on another key element of development infrastructure seldom given sufficient consideration when planning applications of this nature are submitted. This relates to the adequate provision of sewage treatment for the development.

We estimate that the population increase associated with the committed developments in South Ribble will be in the region of 6,400 people. The majority of this population increase is likely to come from outside the South Ribble region.

For this planning application development, the population of the site assuming 1100 dwellings is likely to be in the region of 3,600 people, again with the majority coming from outside the South Ribble region.

This is significant relative to the population of South Ribble measured as 110,527 in 2018.

The provider of the sewage treatment in the region is United Utilities. No doubt they will claim that there is adequate capacity to treat the arising sewage from the committed developments and this application in particular.

However, it is worth reflecting on the fact that United Utilities is the Company that discharges the most sewage to rivers and the sea in England, having amassed a total of 726,450 hours of routine discharges of raw sewage in a total of 113,940 events during 2020.

The sewage treatment infrastructure in NW England is in a shocking state and is wholly inadequate for the intended purpose.

The committed developments in South Ribble and the current planning applications for the Lanes will significantly increase the volume and frequency of such environmentally damaging discharges as the current sewage treatment systems have insufficient capacity as evidenced by United Utilities appalling record in 2020.

On the lack of adequate sewage treatment facilities alone, no new planning applications should be agreed until United Utilities can guarantee sufficient sewage treatment capacity in the region, as demonstrated by the absence of routine discharges to river and sea.

Appendix 3 - LCC Education statutory consultee response to the Lanes planning application 07/2021/00886/ORM

We have been reviewing the email response from the LCC Schools Planning group dated 8th October 2021 and the accompanying Education Contribution Assessment dated 17th September 2021.

We have a number of queries relating to the demand for primary school places arising from committed developments in the vicinity of the proposed site, and from the two planning applications 07/2021/00886/ORM and 07/2021/00887/ORM.

We have similar concerns regarding Secondary and Pre-school education provision.

- **Background information**

The committed developments considered to impact the proposed development are listed below. They were used in the transport assessment completed by Vectos

Committed developments employed in the Vectos TA

ID	Name	Dwellings	Employment space m2
1	Croston Road	174 (350)	N/A
2	Croston Road North	400	N/A
3	Penwortham Mills	385	N/A
4	Gas Works	248 (281)	N/A
5	Cuerden	210	205,600
6	Test track	950	28,000

Q1 Can LCC please confirm which of the committed developments listed above have been employed to predict the demand for primary and schools in the proposed development catchment?

Q2 under the section "Pupil Yield" there is reference made to a "detailed research project carried out during 2012" through which pupil yield is calculated for a bedroom mix within a development. Could LCC please provide a copy of this research paper?

- **Assessment of Primary School Pupil Yield**

LCC state that as the developer has not provided bedroom numbers for the development LCC apply a pupil yield appropriate for a four-bedroom development.

The yield data employed for the four-bedroom case is given below and extracted from the Education Contribution Assessment document.

Development details

Number of bedrooms	Yield applied per dwelling	Number of dwellings	Primary yield for this development
1	0.01		
2	0.07		
3	0.16		
4	0.38	920	349.6
5	0.44		
Totals		920	(349.6) 350 Places

As part of our research on the subject of new development population demographics we have found a number of useful references including this one;

“Population Forecasting Study; Cognisant research for Northamptonshire County Council 2014.”

This was a comprehensive survey-based research project with 2,985 addresses in new developments chosen at random using a mix of face to face interview and postal questionnaire to obtain the required information. The intent of the research was to establish robust Pupil Product Ratios (PPR’s) in order to yield accurate numbers of school age children generated by a new housing development.

As a result of that research data has been produced on how many school age children are resident in a new development dwelling as a function of bedroom number and also how the provision of social or affordable housing changes this metric.

Cognisant research study; Children by age distribution as a function of bedroom number

Number of bedrooms in dwelling	1	2	3	4
Pre School Children	0	0.30	0.32	0.34
Primary School Children	0	0.13	0.32	0.37
Secondary School Children	0	0.03	0.17	0.22
Post 16’s	0	0.03	0.07	0.09

Cognisant research study; Children by age distribution as a function of bedroom number for social housing

Number of bedrooms in dwelling	1	2	3	4
Pre School Children	0	0.52	0.63	0.92
Primary School Children	0	0.19	0.83	0.58
Secondary School Children	0	0.04	0.41	1.00
Post 16’s	0	0.05	0.19	0.58

As LCC are aware the application includes for the provision of 30% affordable homes. Using a suitably weighted “yield” to account for affordable homes given in the Cognisant research the following adjusted yield is apparent. 0.7 x 0.38 + 0.3 x 0.58 = 0.44.

As LCC are aware the total number of homes from the two planning applications is 1,100.

Therefore, the total yield of primary school children accounting for the provision of 30% affordable housing and assumption of 100% four-bedroom homes is 484 not 350.

It should also be noted that from the Cognisant research the maximum “yield” of primary school children actually occurs in three-bedroom homes. The assertion made in the LCC response that the choice of four bedrooms for the analysis presents a worst-case scenario is not true according to the Cognisant research.

In fact, if a more realistic assumption of 10 % two bedroom, 50% three bedroom and 40% four-bedroom split is made for the development, the population of primary school children for the 1100 home Lanes development increases to 523. This is significantly higher that the estimate made in your response.

Q3 In the light of our findings are LCC prepared to reconsider the response that appears to seriously underestimate primary school demand from the development by neglecting the impact of affordable housing.

- **Dependent Development; Impact on primary School places**

Your response identifies 26 primary school places taken by dependent developments. We are concerned that many of the primary schools listed in the response are in fact closer to a large 600+ home committed development being built off Flensburg Way/Croston Road and to a committed housing development at Penwortham Mills at 633 homes, than they are to the development site access road. It is also worth noting that the Test Track housing development at 950 homes is only located 2.5 miles from the proposed site entrance.

In addition, there are many small committed housing developments, 127 in total, in the area of Hutton, Hoole, Longton, New Longton and Howick parishes that will also be competing for primary school places. They do not appear to feature in the list of approved or pending housing developments given in the response the committed developments are identified in the SRBC Housing Position Statement 2020.

These committed developments provide the potential for (600 + 633 +127) x 0.38 primary school children = 517.

Of the fifteen listed primary schools at least five are closer to large committed developments than to the development site so to take a prudent position this dependent development demand is reduced to one third e.g. 172 primary places

It is difficult to reconcile your figure of 26 primary places from dependent developments with the figure of 172 calculated above.

Q4 Given the demand for primary school places from committed developments in the catchment area of many of the primary schools listed, are LCC prepared to reconsider the response that appears to seriously underestimate primary school demand from committed developments?

- **The impact of Population demographics in South Ribble and Preston**.

In your response it is argued that population data from the region indicates that for many of the primary schools listed pupil numbers decline in 2026 relative to the current roll.

We are struggling to reconcile this assumption with recent housing market assessments such as “Central Lancashire Strategic Market Assessment” by GL Hearn dated September 2017 which concludes that the population of South Ribble and Preston will grow by 2.9% and 3.1% respectively between 2014 and 2034. The Central Lancashire Housing study by Iceni dated October 2019 also indicates that household growth in South Ribble will increase by 3.3% from 2019 to 2029.

Q5 Given this data from two recent housing studies based on regional demographics are LCC prepared to reconsider the response that appears to contradict the findings of these studies by significantly reducing pupil numbers for many primary schools listed from current to 2026?

- ***Conclusion***

Our analysis indicates a serious shortfall in primary school places.

3985 places available as a result of school expansion

3698 roll number by assuming population of primary school children does not change (conservative)

Leaving a capacity of 287 places

Assume 172 primary places taken by local committed developments (conservative)

Leaves a total of 115 places available for the Lanes development

523 places required by the Lanes at 1100 homes and 30% affordable housing

Shortfall of 408 primary places.

This indicates that there may be a serious issue developing and we think this merits a thorough and comprehensive review, as the implications of getting this analysis wrong are profound.