

Kirklees HDM Interim comments

2021/92206 - K3-49/7 - Land off Woodhead Road, Brockholes

Erection of 137 homes with open space, landscaping and associated infrastructure.

15/02/2022

RECOMMENDATION: Further information required

Further information is required regarding the following issues, which are detailed in the main body of the report:

- Collision analysis to be provided;
- Junction modelling of the site access to be provided;
- Queue count data used to validate traffic modelling to be provided;
- Clarification of on-site parking provision is required, with amendments required to address any shortfall in provision;
- Amendments to the site access and internal layout are required to address HDM and Highway Design comments;
- Updated Swept Path Analysis (SPA) is required of the amended site layout, which must be undertaken in accordance with local guidance, with amendments to site access and internal layout required to suit;
- Detailed plans are required to confirm how all highway adoption standards are being met, including all visibility requirements; and must clearly demonstrate the proposed highway adoption extents;
- Plans showing improvement works to the PROW network, and Road Safety/Active Travel Improvements to Smithy Place and Smithy Place Lane are required;
- Updated Travel Plan required.

These updated comments are provided on an interim basis, as the traffic signal modelling work is still to be reviewed by the Councils UTC Team. Further comments regarding traffic impact will be provided in due course.

Transport Assessment

An updated Transport Assessment report has been provided. However, there are still existing outstanding issues, which are as follows:

- In the previous HDM consultation response, it was requested that an up-to-date Personal Injury Accident (PIA) assessment was provided, and in the applicants rebuttal statement it is suggested that this has been provided in the revised TA. However, this is not the case, with para. 2.20 of the revised TA simply stating that PIA data has been assessed for previous applications and concludes that no further assessment is necessary. HDM do not accept this, as a Road Safety Assessment is a fundamental part of the Transport Assessment process and must be based on current data (minimum 5 years), otherwise it is not possible to make an informed assessment of the road safety implications of the development. Therefore, this matter remains outstanding and must be addressed. As part of this assessment, consideration should be given to providing improved signage and lining proposals along Smithy Place Lane, to address existing safety issues, particularly relating to pedestrian safety.
- No junction modelling has been provided for the site access junction. This must be provided to confirm that the junction design is adequate to serve the development and determine likely queuing levels. This is particularly important, as it appears from

the Swept Path Analysis (SPA) provided, that the inbound refuse vehicle movement would be blocked by vehicles waiting to exit the minor arm, which is not acceptable.

- Section 2 of the TA suggests that validated base models of the off-site junctions have been produced, which have been verified against the 2015 base count/queue data. However, no queuing data has been provided in the TA to support this assertion, and must be provided for review.
- The Councils UTC Team are still in the process of reviewing the signalised junction modelling that has been provided, and further comments will be provided in due course relating to traffic impact.

Swept Path Analysis

- Swept Path Analysis has been provided in the updated Transport Assessment, which includes two cars passing within the site, and also showing the Councils Design Refuse Vehicle. However, the information is unclear, with all of the refuse vehicle tracking movements included on a single diagram, making the information illegible. Notwithstanding the difficulty in interpreting the SPA information, it is clear that the SPA has not been undertaken in accordance with Council standards that do not permit the use of stationary steering, as this results in wheel scrub and damage to the highway. The SPA also confirms that a number of the turning heads are inadequate based on the current SPA (using stationary steering) showing kerb overrunning, conflict with highway boundaries and conflict with visitor parking bays. Therefore, updated SPA is required without the use of stationary steering, overrunning of kerbs and with adequate clearance from other highway features, with the turning heads enlarged to suit. Specific issues relating to the SPA are confirmed in the following bullet points.
- Whilst the SPA is unclear, it appears that the inbound refuse vehicle movements at the main site access cross the centre line on the site access minor arm. Therefore, should vehicles be queuing to exit the site, these would block the inbound refuse vehicle. This would create a significant safety risk for southbound traffic on Woodhead Road who may then collide with the waiting refuse vehicle. The access should be widened and/or an entry taper provided on the minor arm to ensure that unobstructed access for the refuse vehicle is available at all times.
- On the section of road between Plots 35 and 104, the SPA of the refuse vehicle is shown to use more than the full width of the carriageway to turn, with some overhanging of the footways, which is not acceptable. Should cars be parked near to the junctions at either end of the road, the refuse vehicle would be unable to pass without driving on the footways, which is unacceptable. The road layout should be amended as necessary to ensure that no footway overhanging is required, and additional parking laybys or carriageway widening is provided near to the junctions to reduce the risk of blocking.
- The turning head adjacent to Plots 64 - 71 clearly requires 'lock to lock' stationary steering to function, which is unacceptable. The refuse vehicle is shown overrunning the hard margins and the visitor parking bay, and must be amended.
- The turning head adjacent to No. 11 also clearly requires stationary steering to function and is unacceptable. This could be addressed by extending the turning head and setting back the parking bays for Plot 11.
- The turning head adjacent to Plot 17-19 requires stationary steering to function and is unacceptable, with the refuse vehicle shown impacting on the visitor parking bay. This could be addressed by extending the turning head and setting back the parking bays for Plot 17-19.
- The turning head adjacent to Plot 121-125 requires stationary steering to function and is unacceptable, with the refuse vehicle shown overrunning kerbs, and must be amended.

Parking

- The rebuttal information provided suggests that the development fully accords with the Councils parking standards contained in the Highway Design Guide SPD. However, whilst it is difficult to ascertain the exact provision from the layout plan provided, as bedroom numbers are not annotated, this is clearly not the case as the two bed Rosamond units only have 1 space plus a shared visitor space, rather than the 2 space per 2 bed unit required. The parking provision should be amended in accordance with the Highway Design SPD, with full details of provision clearly identified on the layout plan for ease of review. Should there remain any shortfall in provision, clear justification for this must be provided for consideration. It is also noted that contrary to the applicants rebuttal statement, the updated TA still refers to the superseded UDP standards.
- In accordance with the Highway Design Guide SPD, visitor parking should be provided at 1 space per 4 dwellings. At present only 23 visitor parking laybys are provided, which represent a shortfall of 11 visitor spaces, compared to the 34 spaces required. Additional visitor parking should be provided, which should ideally be in laybys or alternatively with carriageway widening. In particular, additional visitor parking should be provided near to junctions, bends and adjacent to turning heads where on-street parking would block the refuse vehicle.

S278 Design

It is noted that only preliminary details of the S278 site access works have currently been submitted, which are shown on the amended 'Proposed Junction Arrangement' drawing 18001/P/003C, included in Appendix 5 of the revised TA. Therefore, full details will need to be secured by condition. However, there are a number of issues with the current preliminary design that need to be addressed at this stage, which are as follows:

- The double white lines on Woodhead road terminate prior to the ghost island markings, which is incorrect. These need to be extended through the junction in accordance with TSM Chapter 5 – Figure 5-7.
- The deflection arrows shown to the north of the junction on Woodhead Road are not located sufficiently in advance of the double white lines. These should be amended in accordance with TSM Chapter 5 – Table 3-1.
- As requested in the previous consultation response, the proposed bus shelter and realtime displays should be shown on the plan. The proposed shelter on the site side of Woodhead Road must be set back fully behind the proposed visibility splay, and include adequate space for maintenance around the shelter on all sides.
- The current drawing suggests that the hatching tapers are in full accordance with DMRB standard. However, the southern taper is only 54m long, compared to the 60m taper required. The northern taper is also sub-standard, as the taper starts at the end of the turning length, rather than at the northern tangent point of the minor arm as required by DMRB (See 6.1.5 of CD123).
- The TA suggests that both pedestrian islands are min. 2x5m. However, the southern refuge island is not in accordance with these dimensions. The plan should be updated and annotated accordingly.
- As previously stated in the SPA comments, the Council Design Refuse Vehicle must be able to turn into the site access unobstructed by vehicles waiting to exit the minor arm of the junction. Based on the SPA provided, this does not appear possible. Therefore, the access will need to be widened and/or a taper on the minor arm provided.

S38 Design

- As previously stated, revised SPA is required of the Council Design Refuse Vehicle that clearly shows separate vehicle movements, so that it is demonstrated that the refuse vehicle will be able to pass a car at the main site access, at all bends and when passed any on-street parking that may occur, particularly near junctions. Revised SPA is also required at all turning heads to ensure overrunning of kerbs and visitor parking bays does not occur, with any necessary amendments incorporated (See earlier specific points relating to SPA).
- From a review of the proposed long sections, it appears that a number of the proposed roads have gradients in excess of the desirable maximum gradient of 1:20 (generally there is a maximum gradient of 1:15, except on the initial section of Road 1, which is 1:12). As the gradients are in excess of 1:20, this will create amenity and safety problems for pedestrians, particularly those with a mobility impairment and wheelchair users. These gradients are of particular concern for the proposed shared surfaces, where pedestrians will be more vulnerable to collisions from passing traffic, particular during wet and icy conditions. Therefore, all shared surface streets need to be amended to include a maximum gradient of 1:20. Should this not be possible, a separate 2m wide footway/designated pedestrian route will be required along the shared surface streets.
- Forward visibility information is provided in Appendix 7 of the revised TA. However, there are a number of locations where these sight lines cross property boundaries, which is not acceptable, with all sight lines needing to be contained within the adopted highway. This is of particular concern adjacent to Plot 9 where significant encroachment occurs and must be addressed.
- No junction visibility splay plan has been provided for the internal layout. A plan should be provided showing 2.4x25m visibility splays at all junctions, with land within the splays being incorporated into the adopted highway. At present this is clearly not available at a number of the junctions on the shared surface streets.
- Whilst a Managed Area Plan (08A) has been provided, this does not include private drives, which should also be covered by suitable management arrangements and shown on the plan. A plan should also be provided that shows all highway areas that are proposed for adoption, which must include all visibility splays, forward visibility sight lines and the emergency link.
- Bin store locations have been added to the revised site layout plan. However, no bin presentation points have been shown, which are required adjacent to the highway for the presentation of bins on collection day. These need to be located so that they do not obstruct drives, footways or other pedestrian routes and are particularly important for the shared private drives. For further details of these requirements, see <https://www.kirklees.gov.uk/beta/planning-applications/pdf/waste-management-design-guide-new-developments.pdf>

PROW and Active/Sustainable Travel

Improvements to the PROW network are required for the footpaths that pass through the site and along Smithy Place. Improvements to Smithy Place are considered to be particularly important and a necessary feature of the development, given that this is the main pedestrian route to/from Brockholes, which is likely to be the primary destination for development users accessing public transport, schools and other local amenities. To provide good quality active travel connections through the site and on the adjacent highway network, the following improvements are requested as a minimum:

- PROW HOL/31/40 that passes through the site should be provided with a crushed sandstone stone surface and timber edging along the line of the definitive rights of way as a minimum. However, along the section of PROW that leads to the play area and trim trail, including the additional route that does not following the existing

PROW, this should be provided with a flexi-pave type construction to allow ease of access for pedestrians with pushchairs or in wheelchairs.

- PROW HOL/31/60 and the section of HOL/31/30 along Smithy Lane (also known as Robinson Lane) between Woodhead Road and the internal access road, should be improved with a crushed sandstone stone surface, to remove existing pot holes and troughs, and rectify and damage caused during construction. No retractable bollards are considered necessary on this section of PROW and it is recommended that these are removed from the site layout plan. These works will need to be secured by S278 agreement.
- PROW HOL/31/30 along Smithy Lane, between the internal access road and Smithy Place Lane should be upgraded, so that an improved bitmac surface is provided for the full width of the track. This needs to provide a suitable surface for all pedestrians (including pushchairs and wheelchair users) and cyclists, as well as continuing to accommodate light vehicle traffic to the existing dwellings. Street lighting should also be provided along this link. These works will need to be secured by S278 agreement.
- The retractable bollard shown to prevent vehicle access to/from Smithy Place to the internal estate roads is considered acceptable in principle. However, a light van turning head is required on Smithy Lane immediately to the east of the bollard, to ensure that delivery vehicles that enter Smithy Lane can turn and exit in forward gear (SPA should be provided to demonstrate this). A 1.0-1.5m gap is also required between bollards to allow pedestrian movement, but prevent motor vehicle access, which may result in only a single retractable bollard being required. Should there be any objections to the retractable bollard(s) from anyone who may have private vehicle access rights along Smithy Place/Robinson Lane that prevent their installation, it will be necessary for a 'no motorvehicle - except for access' TRO to be installed instead, which would need to be funded by the development and secured alongside the S278 agreement.

The above improvements should be shown indicatively on plan, so that the extent and scope of works is agreed. These works would then be secured by condition, and implemented by a S278 agreement.

In addition to the above PROW improvements, the applicant should investigate further active travel and pedestrian safety improvements from the site towards Brockholes, via Smithy Place Lane, to facilitate sustainable travel, including walking to schools, shops, bus stops and the railway station. As discussed at our recent site meeting, this may include signing and lining improvements on Smithy Place Lane to highlight the presence of pedestrians in the carriageway and encourage slower traffic speeds, as well as improvements to the pedestrian landing area at the base of the steps from PROW HOL/31/30.

In the rebuttal information provided, it is suggested that the footway width on the west side of Woodhead Road is not of sufficient width to accommodate a new shelter. HDM have checked this on site and can confirm that as the footway is only 1.5m wide, it is agreed that a new shelter cannot be accommodated.

Therefore, HDM advises that a bus shelter and real time information screen should be provided on the southbound stop of Woodhead Road (Stop ID 27870), and a real time information screen only on the northbound stop (Stop ID 19149). This would equate to a total bus stop contribution of **£33,000** (2 x £10,000 for realtime and 1 x £13,000 for bus shelter).

The applicant has requested that rather than fund Residential MCards for the development, that a Sustainable Travel Fund be provided instead, which would be to the same value as the MCard scheme and would be used to fund '*provision of travel plan measures for the Dwellings and / or other sustainable travel measures to encourage the use of sustainable*

travel modes by the residents of the Dwellings as set out in the Travel Plan and including MetroCards and / or bike vouchers and / or bike shelters...

The above approach is acceptable in principle to HDM. However, it is noted that the Sustainable Travel Fund cannot be used to fund measures that are considered necessary to accommodate the development (e.g. the PROW improvements, bus stop improvements, or other active travel improvements that are considered necessary and yet to be fully agreed). The Sustainable Travel Fund or MCard scheme contribution will need to be secured via S106 agreement, with any measures agreed in advance with the LPA.

Based on the reduced scale of development now proposed, the Sustainable Travel Fund or MCard Scheme (based on the cost of the bus only Residential MCard scheme) is **£70,075.50** (137 x £511.50).

As the current Travel Plan states that the MCard scheme will be provided, the Travel Plan will need to be amended to reflect the above change in approach should a Sustainable Travel Fund approach be pursued, with the proposed allocation of funds identified in the revised Travel Plan for consideration.

As stated in the previous HDM consultation response, Kirklees Council requires developers to contribute to the cost of monitoring Travel Plan progress. For this development the lower rate that applies to '*Small Scale Major Development*' (residential developments of between 50-199 units) is applicable, which is £2,000 per annum for the first five years from the development being brought into use. Therefore, the total Travel Plan Monitoring Fee is **£10,000** (5 x £2,000) and should be secured in the S106 agreement.

Conditions and S106 requirements

To be confirmed in full once all outstanding matter have been addressed.

Existing Highway Conditions

The A6024 Woodhead Road forms part of the primary highway network providing a link between Huddersfield, Honley and Holmfirth and continues towards Manchester.

In the vicinity of the development site it is a single carriageway two-way road with a carriageway width of c.6.5m with a footway present on the western side. Footways are provided on both sides of the A6024 closer to Honley Bridge.

The A6024 Woodhead Road is a bus route, street lighting is provided to main road standards and there are no controls on parking in the vicinity of the site.

Along the site frontage it is subject to a 40mph speed restriction, which drops to 30mph c.240m north of the site access.

Collision analysis

It is noted in the Transport Assessment that Personal Injury Accident (PIA) records were reviewed during previous applications on the site with the conclusion that there are no existing safety problems associated with the road network surrounding the development site.

It is stated that it is not anticipated that the traffic associated with the proposed development would result in any significant safety implications on the adjacent highway network. However, no collision analysis has been undertaken to verify this assumption.

Therefore, it is requested that up to date collision analysis is undertaken and submitted to HDM for review. The analysis should include the following as a minimum:

- A6024 Woodhead Road/ Station Road/ Eastgate - Signal Controlled Junction;
- A616 New Mill Road/ Station Road - Priority Cross-roads;
- A6024 Woodhead Road/ A616 New Mill Road - Signal Controlled Junction;
- A6024 Woodhead Road from above junctions, past the site access, up to and including the Smithy Place Lane/Hagg Wood Road/A6024 junction.

It is noted that the Smithy Place Lane/Hagg Wood Road/A6024 junction must be included in the collision analysis, as an initial review of this junction indicates that there have been a number of incidents that could be affected by development traffic, particularly traffic using Smithy Place Lane to travel to/via Brockholes.

Subject to the findings of the above collision analysis, mitigation works may be necessary to address safety issues on the local highway network.

Pedestrian and Cycle Facilities

Further detailed comments are awaited from the PROW Team and will need to be addressed once available.

However, initial comments have been provided that have identified concerns regarding the changes to the public footpath that runs through the site (HOL/31/40), which are as follows:

- There is a visitor parking bay location in the turning head opposite Plot 7 immediately adjacent to the existing PROW. The parking bay may affect the safety of users of the PROW and could result in the PROW becoming blocked if vehicles park badly. As such, it is requested that the visitor parking bay is relocated from the turning head.
- As the footpath crosses the site access road, a speed table is proposed. However, this is not well aligned to the footpath and should be removed. HDM agree with the

removal as the speed table, as it is considered to be an unnecessary feature in this location given the proximity of the adjacent bend. Dropped crossings with tactile paving should be provided instead.

- The plans do not clearly show the proposed treatment of the PROW as it passes through the site. However, it is considered that some improvements should be provided by the development, as the footpath will provide a valuable link to Woodhead Road, particularly as the footpath heads south linking to PROW HOL/31/60 that leads to the bus stops on Woodhead Road and to Smithy Place.

In addition to the above, concern is raised regarding the treatment of the access road north of plot 115 / 120, as it crosses PROW HOL/31/30 (Smithy Lane), as motor traffic could choose to use this new connection to access Smithy Lane from the site access road. Further consideration on how this situation can be safely managed is required, which must ensure that safe pedestrian access is provided to/from the PROW and that rat running along Smithy Place does not occur.

The applicant is requested to consider the above issues and any necessary improvements to the PROW network once formal comments from the PROW Team have been received.

Trip Generation, Distribution and Capacity Assessment Methodology

It is noted that due to the Covid-19 pandemic, it was previously agreed with KC Highways that it was not appropriate to undertake new traffic counts and as such TEMPRO growth factors for the Kirklees 053 MSOA (in which the site is situated) have been added to 2015 survey data in order to establish a 2021 baseline. This approach is still considered to be acceptable.

The trips rates that have been utilised (previously agreed by KC HDM of between 0.7-0.8) are acceptable and present a robust assessment of development traffic generation. The development proposals, based on the provision of 146 dwellings, are forecast to generate some 113 and 119 two-way vehicle trips during the AM and PM peak hours respectively. In the immediate vicinity of the site this equates to an increase in vehicular trips of approximately two vehicles per minute.

The weekday peak hour traffic distribution for the development has been based on method of travel to work data obtained from local census information (MSOA Kirklees 053). This approach is considered acceptable for junction capacity assessment purposes. However, it is considered that in practice more development related traffic may use Smithy Place Lane than suggested, relating to non-commuter based trips (e.g. to access school and other local facilities in Brockholes).

The impacts of the development proposals have been based upon a comparison of the future year baseline conditions on the network (assessed using the 2026 base traffic flows) against the future year with development conditions on the network (assessed using the 2026 predicted traffic flows). To estimate 2026 base flows, TEMPRO growth factors for MSOA Kirklees 053 have been utilised. The growth factors and assessment year are acceptable.

Junction Assessment.

The extents of the junctions to be assessed within this TA were agreed with KC Highways and are as follows:

- A6024 Woodhead Road/ Station Road/ Eastgate - Signal Controlled Junction;
- A616 New Mill Road/ Station Road - Priority Cross-roads;
- A6024 Woodhead Road/ A616 New Mill Road - Signal Controlled Junction;

- A635 Holmfirth Road/ A616 Sheffield Road/ A616 Huddersfield Road/ Penistone Road - Priority Cross-roads; and
- A6024 Huddersfield Road/ Victoria Street - Signal Controlled Junction.

The Transport Assessment concludes that:

‘with the addition of the development generated trips the impact on the capacity and queue lengths at the junctions on the study area are minimal and are not forecast to result in a significant detrimental impact upon the network.’

To enable HDM to consider whether the above statements are correct, it is requested that the LINSIG and Junction 9 input model files are provided to HDM, so that the junction operation can be reviewed in detail. In particular, this includes the LINSIG files of the signalised junctions that are within the study area, which are understood to experience capacity issues during network peak periods.

Subject to the findings of the above review, mitigation works may be necessary to address capacity issues on the local highway network.

Internal Layout

The principle spine roads within the site will be 5.5m wide with 2.0m wide footways located on both sides of the carriageway, which is welcomed/acceptable and accords with Kirklees Highways Design Guide. However, please see further comments from the Councils S38 / Highway Design Team relating to specific design issues that should be addressed, to ensure that the roads are suitable for adoption.

The internal layout has been designed with principal spine roads running into the site from the A6024 Woodhead Road with a hierarchy of roads branching off the main spine road, providing access to properties across the site. Beyond the principal network of roads there are a number of private drives that facilitate access to individual properties.

It is noted that the internal access roads have been designed to achieve low vehicle speeds within the site, incorporating changes in the road alignment which assist in providing a safe environment for pedestrians and cyclists within the site. The site layout proposals include a network of footways and footpaths across the site and an emergency vehicle link is proposed through the centre of the site.

The S38 / Highway Design Team have identified a number of issues with the site layout, which have been identified later in this response. These issues should be addressed and amended information provided for further consideration. Any amended plans should clearly identify the areas that are proposed for adoption, which should include the emergency link.

It is noted the highway layout plans do not show the existing / proposed trees within the site. These should be shown on the amended highway plans, to ensure that the layout is in accordance with the NPPF and the Councils Highway Design Guide SPD & Housebuilders Design SPD, which require streets to be tree lined, and to ensure that any trees do not have any adverse impact on road safety and amenity.

Refuse & Recycling

Bin collection points should be provided for all dwellings and presented on a drawing for consideration. These arrangements should be in full accordance with the latest KC Guidance Document *‘Waste Management Design Guide for New Developments’*. Careful consideration needs to be given to the facilities for the proposed private drives, as communal presentation

points will be required adjacent to the proposed adopted highway, and need to comply with the maximum carry distances set out within the above guidance document.

All turning heads within the site should be of a size to accommodate the Kirklees Design Refuse Collection Vehicle (11.85m long), demonstrated via swept path analysis (SPA). It is noted that the swept path analysis currently provided in the Transport Assessment does not utilise the correct refuse vehicle size, and does not assess the latest site layout. It also appears that stationary steering has been used at the turning heads, which is not in accordance with KC guidance.

Parking.

The Transport Assessment states:

“Parking for the residential units will be provided in line with the guidance set within the Kirklees Unitary Development Plan Appendix 2 which requires two spaces per dwelling for sizes below 140sqm and three spaces per dwelling for sizes in excess of 140sqm.”

The UDP is not the correct/up-to-date document with respect to parking provision and the applicant is asked to clarify/correct this.

Parking for the development should accord with the Kirklees Council (adopted SPD) Highway Design Guidance, with visitor spaces provided at a rate of one per four dwellings. At present it appears that there is a shortfall in visitor parking laybys and provision for the larger 4-5 bedroom units.

Further clarification should be provided of the proposed parking provision, with additional spaces provided where necessary, so that the development accords with the KC guidance.

Sustainable Transport

Bus

The nearest bus stops to the site are located on both sides of the A6024 Woodhead Road, south of the proposed site access and north of Smithy Place Lane, both within the recommended 400m walking distance of the site.

There are also bus stops present on both sides on the A616 New Mill Road c.550m north of the proposed site access junction for north bound services and c.600m for southbound services, which are served by additional bus services.

The 2.0m wide footway along the site frontage and pedestrian refuges proposed as part of the site access proposals will aid safe use of the bus stops located on the A6024 Woodhead Road.

The views of WYCA have been sought and are as follows:

“The site is located within the recommended 400m from the nearest bus routes that operate on Woodhead Road. We generally take a pragmatic approach to walk distances to take the size and location of development sites into account. When doing so, we also have to consider the development type and the level and quality of service (frequency and destinations served) at the destination bus stop. Bus services which operate on Woodhead Road include the 310 which operates between Huddersfield and Hepworth at a 30 minute frequency. The bus availability for the site is therefore considered to be acceptable.

The size of the development is unlikely to change the bus route or frequency. The closest bus stop on this corridor 19149 does not have a shelter. As part of this scheme, a bus shelter could be provided at the above named stop at a cost of £13,000 to the developer to improve the public transport offer. In order to access this stop, safe and direct pedestrian links are required. To encourage the use of sustainable transport as a realistic alternative to the car, the developer needs to fund a package of sustainable travel measures.

We recommend that the developer contributes towards sustainable travel incentives to encourage the use of sustainable modes of transport. Leeds City Council have recently introduced a sustainable travel fund. The fund can be used to purchase a range of sustainable travel measures including discounted MetroCards (Residential MetroCard Scheme) for all or part of the site. This model could be used at this site. The payment schedule, mechanism and administration of the fund would have to be agreed with Kirklees Council and WYCA and detailed in a planning condition or S106 agreement. As an indication of the cost should the normal RMC scheme be applied based on a bus only ticket, the contribution appropriate for this development would be £74,679.00. This equates to bus only Residential MCards.”

Although Metro have only identified the requirement for 1 no. new shelter, HDM advises that bus shelter and real time information screens should be provided on both sides of Woodhead Road at the (2x) bus stops closest to the site (total contribution required is 2 x shelters at £13,000 per shelter and £10,000 per RTI screen for 2 x RTI screens. Forming a total of £46,000).

The above public transport improvement contribution should be secured under the Heads of Terms/s106, supporting any future planning consent for this proposal, in addition to the £74,679 for the Residential MetroCards or Sustainable Transport Fund.

Total public transport s106 contribution is therefore: **£120,679.**

Rail

The nearest railway station to the site is Brockholes Railway Station which is located on Riding Fields circa 1.3km from the site. Honley Railway Station is located on Station Road circa 1.4km from the site.

The applicant states that both are within a reasonable walking and cycling distance of the site and are on the Huddersfield to Sheffield Northern Line which has a service frequency of every 60 minutes throughout the day and in the evenings. HDM agrees that the proximity of local train stations is within walking distance from this site. However, due to local topography, it is considered that the station is only likely to be accessible to more able pedestrians and cyclists.

Electric Vehicle (EV) Charging.

EV charging points should be proposed throughout the development and clearly presented on EV charging plan drawing, as follows:

- Externally mounted to houses;
- Internally mounted;
- On mounting post adjacent to parking bays.

EV charging should be secured by a Planning Condition and cross-referenced to the submitted EV drawing submitted in support of this application.

Travel Plan

A Draft Travel Plan (TP) has been developed for the site and includes measures to promote the use of sustainable travel modes as well as reducing the need to travel. This has been submitted in support the planning application and the implementation of such should be secured by a planning condition, subject to future planning consent.

Kirklees Council requires developers to contribute to the cost of monitoring Travel Plan progress. The Council charges an annual fee for five years for this service, with two rates based on the size of the development.

For this development the lower rate that applies to '*Small Scale Major Development*' (residential developments of between 50-199 units) is applicable, which is £2,000 per annum for the first five years from the development being brought into use.

The above fee will cover assistance with the development of the Draft Travel Plan into a Full Travel Plan in discharging the Travel Plan condition, and assist the Travel Plan Co-Ordinator in implementing, maintaining, and monitoring the approved Travel Plan.

The total Travel Plan Monitoring Fee is **£10,000** (5 x £2,000) and should be secured in the S106 agreement.

Construction Access Strategy

During the construction of the development, a Construction Management Plan (CMP) should be implemented which will address any potential impacts arising from the development and ensure that the Site operates efficiently and safely.

A CMP should address construction hours of operation, treatment of delivery vehicles (wheel washing requirements, sheeting etc) and access routes to/from the site.

HDM advises that a CMP is secured by planning condition and that additionally, a specific planning condition is secured relating to:

- Wheel washing facilities;
- Carriageway, footway and PROW condition survey (pre and post construction).

S38 / Highways Design Comments

Site Access

i. The site access is to be served by a ghost island access. This must comply with DMRB, CD123 Geometric design of at-grade priority and signal-controlled junctions;

ii. The ghost island shall be subject to Section 278 technical approval;

iii. Pre-application consultation indicated the use of retaining structures along the southbound channel of the A6024 Woodhead Road, this seems to be eliminated on current proposals;

iv. At the location of the proposed access junction, A6024 Woodhead Road has a speed limit of 40mph;

v. The proposed earthworks modelled to form a site access should be assessed for site safety and a RRRAP assessment should be carried out to determine if any vehicle restraint barriers are necessary;

vi. The required visibility splays of $x=4.5\text{m}$ by $y=160\text{m}$ must be satisfied in accordance with DMRB Volume 6 Section 1 CD 109 Revision 1 Road layout Design, Highway Link Design;

vii. The sight stopping distance / forward distance of 160m from A6024 Woodhead Road (northbound/southbound) to where the proposed site access junction would be sited needs to be demonstrated and satisfied;

viii. The site access must have a corner radii of 10m minimum. Additional widening may also be required to ensure that the Kirklees Council refuse vehicle can turn into the site past a vehicle waiting to exit the site access junction;

Site Layout

i. Provision of visitor bays should be to a ratio of 1:4 to the total number of dwellings proposed. Hence, a minimum of 37 spaces are required;

ii. All visitor parking bays need to be parallel to the proposed internal roads that should be ideally created as lay-bys and staggered across the overall development area;

iii. The main internal road alignment into the site seems jagged in places and has very tight centreline alignment - this is unacceptable. A minimum 20m centreline radius on the internal road should be used to ensure refuse vehicle swept paths are not compromised. The following is noted with regards to your development: -

- o The radius seems too tight for contra-flow vehicular flow and is unacceptable just off the site access junction;

- o The radius seems too tight for contra-flow vehicular flow and is unacceptable near plot nos. 1 to 4;

iv. Note all footways are required to be 2.0m width. Current proposals need to be amended to suit;

v. The proposed main carriageway through the site should be a minimum of 5.5m width.

vi. Any bell mouths formed off this road should be staggered 25m apart and have visibility splays with a y distance of 25m and x distance of 2.4m. Current proposals may need to be amended to suit if they do not comply;

vii. All corner radii are required to be 6m minimum to assist with refuse swept path movements, this is to also to be required at all proposed turning head areas too;

viii. Vertical speed control features (e.g., speed tables) are discouraged. However, if proposed should be less than 60m apart for them to be effective;

ix. All roads are required to have forward visibility of 25m throughout and especially around bends. Visibility envelopes around bends are required to be illustrated to ensure any proposed plots do not interfere. Initially, a sight stopping distance of 25m is to be used but can be relaxed to 23m if it impacts a proposed plot location. Current proposals need to be amended to suit;

x. All areas required for visibility must be included in the adoptable carriageway. Any areas of visibility that fall within private driveways and gardens are not acceptable and proposals should be amended to suit;

xi. Any shared surfaces are required to be 5.5m with a 0.6m hard margin on either side. This should be amended on your current proposals;

xii. Where on-street parking is envisaged, swept path analysis is required to demonstrate if the Kirklees Refuse Vehicle can manoeuvre through;

xiii. The swept path analysis (SPA) needs to be updated to reflect the amended site layout and must be in accordance the Councils standards (see below). The current development proposal strongly indicate issues with refuse vehicle manoeuvrability;

xiv. SPA is required on all turning head areas and severe bends to optimise their size in relation to refuse vehicle movements;

xv. On all turning heads it is required to demonstrate using swept path analyses that when manoeuvring, Refuse Collection Vehicles, shall be able to travel at a minimum speed of 5 km/h. In other words, drivers shall not need to stop to adjust the steering while stationary before setting off again. The Kirklees vehicle parameters are set out in Table 1 of Emergency Access, Waste Management, Servicing & Deliveries - April 2020 (version 1): -

- o Length – 11.85 m
- o Width – 2.50 m (including wing mirrors)
- o Width when loading – 4.10 m
- o Working height – 6.00 m
- o Turning circle (wall to wall) – 22.07 m (diameter)
- o Turning circle (between kerbs) – 17.88 m (diameter)
- o Gross vehicle weight – 32 t.

xvi. Bin collection points need to be shown, as they are required to assess if the refuse vehicle can effectively access them within the adoptable Section 38 carriageway area;

xvii. Around tight bends in the carriageway consideration should be given to making provisions for overrun areas or localised carriageway widening where required following SPA checks;

xviii. To transition from the widened existing tarmacked road to the proposed Section 38 block paved road a ramp should be introduced that should be no steeper than 1:12;

xix. The footway around the turning head areas made of standard carriageway construction should be 2.0m wide. Where a turning head area is made of block paved construction, then a proposed 0.6m hard margin should be provided instead of a footway;

xx. Around bends SPA for two normal size vehicles being able to cross each other in the contraflow direction needs to be demonstrated too;

xxi. Around tight bends in the carriageway consideration should be given to making provisions for overrun areas or localised carriageway widening;

xxii. New 2-to-3-bedroom dwellings within Kirklees should provide 2 no. off-street car parking spaces, with 4+ bedroom dwellings providing 3 no. off-street car parking spaces. Any new 1–2-bedroom apartments must provide 1 space, where 3+ bed providing 2 no. spaces. One cycle space per unit is recommended;

xxiii. With regards to the vertical design of the proposed roads, the following needs to be

complied with: -

- o Given the significant level differences, roads with intermittent 1:10 longitudinal gradients can be considered for adoption. A road with 1:10 gradient throughout would not be acceptable as it prejudices against disabled users.
- o At internal junctions 15m from the tie-in to the main road channel will have a maximum gradient of 1:25 to avoid grounding issues for vehicular users;
- o While proposing longitudinal gradients it must be noted that given the above gradients up to 5% (1 in 20) are generally considered acceptable for pedestrians, including wheelchair users, gradients over 2.5% (1 in 40) might be impassable for some manual wheelchair users. On Gradients of 8% (1 in 12.5) or above, the physical effort of getting up the slope would be too much for many wheelchair users and there would be a risk of some wheelchairs toppling over. Slopes exceeding 10% (1 in 10) might prove impassable to many nonwheelchair users;
- o It is advised that a minimum K value of 3 should be used. Minimum curve length of 20m should be used throughout;
- o On footpaths and cycle paths, crossfall should usually be 2.5% (1 in 40). This provides a good balance between the need to remove surface water and the needs of users. Crossfalls steeper than about 3% (1 in 33.3) can be uncomfortable to walk on and, where the slope runs towards a road, can be dangerous, as wheeled users tend to edge down the crossfall. Accordingly, 3% is the desirable maximum crossfall. However, it will generally be necessary to increase crossfalls at vehicle crossings and similar. In these situations, the crossfall may be increased to an absolute maximum of 5% (1 in 20) providing that the increase is minimized, the risks are adequately assessed, and any necessary mitigation measures are implemented;
- o Slopes of 10% or over, separate off-carriageway facilities for pedestrians should be provided. These shall be to an independent vertical alignment to the adjacent carriageway to reduce the maximum gradient required. Level 'landings' at spacing appropriate to the gradient and handrails shall be provided for pedestrians. Consideration shall be given to the provision of parallel, alternative routes utilising steps to reduce local gradients;
- o Shared spaces should have a gradient not steeper than 1:20. If this cannot be achieved then a separate footway along the shared space should be provided too.

Other Items for Consideration

- i. For a full application, site contours, plot finished floor levels and proposed road contours/road long sections are necessary for our full assessment. Not all of this information was made available. Therefore, updated and complete information should be made available for review.
- ii. Details of proposed surface finishes have not been provided for comment. From the block plan it is assumed that the main residential road will be block paved;
- iii. A Stage 1 Road Safety Audit with designers' comments is required. The Audit must comply with GG119 and an audit brief must be approved beforehand;
- iv. Landscaping plans must be provided to ensure proposed trees do not impact on necessary highway visibility. All proposed trees need to be assessed and located so that they do not adversely affect visibility splays/envelopes;
- v. Note highway drains over 900mm diameter within the proposed Section 38 corridor are not acceptable to Kirklees. Hence, culverts within the Section 38 highway corridor should be avoided, when trying to divert the existing stream;

vi. Any proposed combined cycle route will need to be a minimum of 3m wide. There seems to be no provision for cyclist within the development - proposals need to be reviewed to ensure the requirements of LTN 1/20 Cycle Infrastructure Design are met where appropriate.

Bridge & Structures

- 1) Before the development commences a scheme detailing the location and cross sectional information together with the proposed design and construction details for all new retaining walls/ building retaining walls adjacent to the existing/ proposed adoptable highways including any modifications to the existing retaining walls supporting the A6024 Woodhead Road and public footpath (HOL/31/30) shall be submitted to and approved by the Highway Authority in writing. The approved scheme shall be implemented prior to the commencement of the proposed development and thereafter retained during the life of the development.
- 2) No development shall take place until the design and construction details for all temporary and permanent retaining structures supporting the embankment within the site have been approved in writing by the Highway Authority. The details shall include a design statement, all necessary ground investigations on which design assumptions are based on, method statements for both temporary and permanent works, removal of any bulk excavations, a full slope stability analysis together with structural calculations and all associated safety measures for the protection of adjacent public highway. All highway retaining structures shall be designed and constructed in accordance with the approved details and shall be so maintained throughout the life of the development unless otherwise agreed in writing by the Highways Structures Section.
- 3) Before the development commences a scheme detailing the proposed design and construction details for the new culvert structure/s with a span or internal diameter greater than 0.9m including any wing walls, carrying the new access roads over the un-named watercourse shall be submitted to and approved in writing by the Highway Authority before any development commences. The approved bridge design shall be implemented prior to the commencement of the proposed development and thereafter retained during the life of the development.
- 4) Before the development commences a scheme detailing the location and cross sectional information together with the proposed design and construction details for all new surface water attenuation pipes/manholes located within the proposed highway footprint shall be submitted to and approved by the Highway Authority in writing. The approved scheme shall be implemented prior to the commencement of the proposed development and thereafter retained during the life of the development. See <https://www.kirklees.gov.uk/beta/regeneration-and-development/highways-guidance-and-standards.aspx> for further details.

Important Notes:

All new storm water attenuation tanks/pipes/culverts with internal diameter/ spans exceeding 0.9m must be located off the adoptable highway. Any decision to locate these facilities within the adoptable highway footprint must be accompanied with a full risk evaluation report with particular reference to their proposed inspection, structural assessment and maintenance regime in compliance with the CDM Regulations 2015 requirements.

The adopting authority (i.e. Yorkshire Water) will also be required to produce and submit a legally binding agreement to the Highway Authority explicitly stating that they will be fulfilling their obligations in relation to the systematic and cyclical inspection and structural assessment of any attenuation structure located within the highway footprint, in full compliance with CS450- Inspection of Highway structures.