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**Economy and
Infrastructure**
Development Control
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Date: 17 April 2024
Your ref: W/23/02112/OUT
Our ref: Karen Hanchett

Dear Gillian,

**TOWN AND COUNTRY PLANNING ACT 1990
(DEVELOPMENT MANAGEMENT PROCEDURE) (ENGLAND) ORDER 2015
ARTICLE 18 CONSULTATION WITH HIGHWAY AUTHORITY**

PROPOSAL: Planning application for the demolition of existing farmhouse, agricultural buildings and structures, the erection of a phased development of up to 300 residential dwellings (Use Class C3) and associated public open space, drainage, infrastructure and engineering works with all matters reserved except access.

LOCATION: Orchard Farm Defford Road Pershore WR10 3BX

APPLICANT: Formula Land Ltd

Worcestershire County Council (WCC), acting in its role as Highway Authority, has undertaken a full assessment of this planning application. Based on the appraisal of the development proposals and the additional information submitted, the Transport Planning and Development Management Team Leader, on behalf of the County Council, under Article 18 of the Town and Country Planning (Development Management Procedure) (England) Order, 2015 and recommends **DEFERRAL** on the grounds that insufficient information has been provided to demonstrate that the proposals would not result in a severe congestion or unacceptable highway safety impact on the surrounding local highway network, contrary to NPPF paragraph 115 or that the proposals would be served by safe and suitable access for all users, contrary to NPPF paragraph 114.

The justification for this decision is provided below. Requests for further information to overcome the Highway Authority's recommendation are provided in **bold-type** and summarised at the Conclusion.

WCC Highways is in receipt of a Transport Assessment (TA), prepared by Vectos (September 2023) and a number of plans and technical drawings submitted in support of the application.

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Application Site

The proposed site currently comprises agricultural land, which is located to the immediate south-west of the market town of Pershore and immediately south of planning application site reference 24/00270/FUL. The site is bound to the south by Defford Road (A4104), to the west by Tiddesley Wood, to the north by arable land, and to the east by residential properties accessed from Desjardins Way.

To the south of the site, Defford Road (A4104) is a two-lane single carriageway, which runs between Pinvin to the north and Defford, Upton-upon-Severn and Little Malvern to the south-west. Within the immediate vicinity of the site, Defford Road (A4104) is a two-lane single carriageway subject to a 50mph speed limit along the full extent of the site's southern frontage. The speed limit of the A4104 reduces to 30mph approximately 225m north of the south-eastern corner of the site (just south of the Three Springs Road/ B4536 Defford Road junction). At Three Springs Road, Defford Road continues east, where it forms a section of the B4536, to Pershore town centre.

There are currently no footways on Defford Road along the site frontage. However, there is an existing footway located along the northern side of Defford Road (A4104), beginning approximately 150m north of the south-eastern corner of the site. This footway is approximately <1m wide at its southern extent with a further <1m of grass verge between the footway and the carriageway. This footway widens to approximately 2m at the Defford Road/ Three Springs Road junction.

To the north of the site, the B4536 Defford Road is a two-lane single carriageway forming a section of the B4536, which runs from Defford Road (A4104) in the south-west and the junction at Broad Street (B4536)/ Church Walk, where it merges into Broad Street (B4536). The speed limit on Defford Road (B4536) is 30mph at the junction of Defford Road (A4104)/ Defford Road (B4536).

There are continuous footways on the northern side of Defford Road (B4536) from its junction with Three Springs Road which connect the site to the Pershore town centre.

Development Proposal

The Applicant seeks outline consent (except for access) for a residential development of up to 300 dwellings, together with associated infrastructure, landscaping, and access. All other matters are reserved.

Pre-application Query

The Highway Authority received a pre-application query for the site in May 2023. A TA Scoping Note was submitted, together with an illustrative masterplan drawing. The Highway Authority reviewed the submitted information and provided comments in a response, dated 12 June 2023.

WCC Highways outlined in its preapplication response that there was an in-principle concern with the suitability of the site to provide a sustainable residential development in highways and transport terms and the potential for an over-reliance on the private car. The response requested any future TA include further evidence to show improvements to

sustainable transport provision and that the site layout and its accesses are designed in accordance with the WCC Streetscape Design Guide, if it is intended to offer the internal street network for adoption.

Vehicular Access

Vehicular access is proposed to be taken from Defford Road (A4104) via a priority junction. This site access is proposed to comprise a ghost island right-turn arrangement, designed to retain the existing 50mph speed limit. The main spine road/access road would include a 6.0m carriageway, a 2.0m wide footway on the east side and 15.0m radii kerbing. The proposed vehicular access layout is shown on SLR Drawing No. 227119_PD02/N 'Proposed 50mph Ghost Island Arrangement'. Worcestershire Streetscape Design guide requires that a minimum carriageway width of 6.1m is provided where a primary residential street will also serve as a bus route. **The Applicant is therefore requested to widen the spine road to 6.1m. In addition, the Highway Authority requests that a central island is provided in the middle of the bell-mouth junction.**

The Applicant should be advised that the main spine road may be required to connect to the northern-most application site boundary, such that a connection through to application site 24/00270/FUL can be made.

The recorded 85th percentile speeds at the proposed site access location are 49.8mph northbound and 51.8mph southbound, which is consistent with the existing 50mph speed limit at this location.

To comply with DMRB design standards, visibility splays of 2.4m x 145.7m northwards and 2.4m x 136m southwards are appropriate for the site access and submitted Drawing No. 227119_PD02/N shows these can be achieved.

The Worcestershire Streetscape Design Guide (SDG) outlines that the desirable gradient for all new roads is 1in20 (5%) but that steeper gradients may be considered for short distances. **The Applicant is requested to confirm the proposed gradient of the site access road.**

Access junction swept path analysis has been provided for a standard design vehicle only, as shown on drawing 227_119_AT_A02 D. The Highway Authority requests that once the junction arrangement and geometry has been agreed, swept path analysis is provided for the following vehicles:

- 11.3m length (with tailgate raised) refuse vehicle;
- Appropriate bus vehicle (dimensions tbc);
- Pantehnicon (large furniture removals wagon); and
- 8.7m length Hereford and Worcester standard fire appliance.

Once WCC Highways has confirmed agreement-in-principle to the proposed site access arrangements, **the Applicant is requested to undertake a Stage 1/2 Road Safety Audit (RSA) compliant with DMRB GG119 Road Safety Audit at planning application stage. The Applicant must submit the RSA brief to WCC Highways for agreement in advance**

of the audit being undertaken. The RSA brief should include the full access proposals for vehicles and active travel modes, and any other proposed highway modifications associated with the development proposals.

The Applicant should be advised that construction of the proposed 'ghost island' junction will require alterations to the existing public highway. This will require the Applicant to enter into a separate S278 Agreement with the Highway Authority if planning consent were granted.

The Applicant also intends to provide a combined pedestrian, cycle and emergency access at the north-eastern corner of the site, at the junction of Fleury Close and Henderson Close, offering an alternative highway connection for emergency services and a public access point to the site. This emergency access will only be used as such in the unlikely event that access via the main spine road is blocked. The Highway Authority has no objection to the proposed emergency access. If it is the Applicant's intention to put this access forward for adoption then it must (a) connect to the public highway and (b) be subject to a TRO to restrict vehicular access to emergency vehicles only. The TRO would require the Applicant to fund the processing fees, which can be covered by a financial contribution if planning consent were subsequently granted.

Pedestrian and Cycle Access

The TA states that the overarching strategy for the site will be to reduce the overall need to travel, maximise the opportunity to travel by sustainable modes, and reduce the effect of new car trips from the proposed development. Hence, there is a focus on enhancing connectivity to existing pedestrian, cycle and public transport networks in the vicinity of the site.

Drawing No. P22-2506_DE_0008/G is an illustrative masterplan drawing and shows four pedestrian/cycle routes serving the development site, which are discussed in the TA. Pedestrians and cyclists will be able to use the proposed vehicular access at Defford Road (A4104) but as this is the most southern access point and would be circuitous for journeys between the site and Pershore Town Centre, it is unlikely to form the most attractive active travel route.

A new pedestrian/ cycle access is proposed at the south-eastern corner of the site, connecting Defford Road (A4104) to the residential development. The SDG outlines that cycleways and footways should not exceed a gradient of 1in20. **The Applicant is therefore requested to confirm the gradient of the proposed pedestrian/cycle access.**

An additional pedestrian/cycle access is proposed at the north-eastern corner of the site, linking to the junction of Fleury Close and Henderson Close. For residents who live towards the north of the site, this link would provide a shorter and more direct route to some facilities, notably to High Street and to Abbey Park School. **The Applicant is requested to provide a pedestrian/cycle connection to the proposed development site to the north, application reference 24/00270/FUL.**

The proposed site access drawing reference 227119_PD02/N shows pedestrian/cycle infrastructure improvements along Defford Road (A4104) and the TA discusses these improvements. The proposed design of the vehicular site access includes a new section of 2m footway adjacent to the east side of the site road carriageway. It is then proposed to construct a section of 2m wide footway along the north-western side of Defford Road (A4104) running eastwards. In addition, an alternative 'car free' active travel route has also been proposed which provides a shared footway/ cycleway within the site, exiting onto Defford Road (A4104) in the south-eastern corner of the site. At this point, it ties into the proposed 2m footway along the frontage of the site.

The proposed pedestrian/cycle access connecting to Defford Road will route north to the existing pedestrian infrastructure which begins at the Bridleway 522(B). Dropped kerbs and tactile paving will be provided at this location, as shown on drawing. 227119_SK02/N. The existing footway north of the Bridleway is proposed to be widened to accommodate a 3m shared route, initially with a 0.5m verge between the shared route and carriageway, which tapers to no verge once the speed limit becomes 30mph, as shown on drawing. 227119_SK07/C. Immediately north of the Three Springs Road / Defford Road junction, a new Zebra Crossing is proposed, as shown on drawing. 227119_SK09. **WCC Highways requests that all proposed pedestrian and cycle provision is included within the RSA1/2 Brief for audit. Speed surveys should also be undertaken proximate to the proposed Zebra crossing location and included within the Brief.**

Section 7 of the TA provides the conclusions of an active travel environment audit undertaken by the Applicant. The audit considered four walking routes from the site to various key destinations in Pershore and proposes installing uncontrolled dropped-kerb pedestrian crossing points with tactile paving at two locations along Farleigh Road. WCC Highways agrees that the proposed uncontrolled pedestrian crossings would facilitate safe active travel journeys between the site and Pershore town centre.

WCC Highways also requests that the Applicant provides wayfinding signage to assist pedestrians and cyclists navigating between the site and Pershore town centre.

Cycle Access

The TA notes, in terms of signed or formal cycle routes within the vicinity of the site, National Cycle Network (NCN) Route 442 runs through the centre of Pershore via New Road and Holloway. This is approximately 1km north of the site (four minutes by bike). NCN Route 442 provides a continuous signed cycling route between Worcester and Elmley Castle via Pershore, and also connects with a number of other NCN routes. Alternatively, a series of bridleways and footpaths connect the site and Defford Road with Holloway and NCN 442, namely 516(C), 517(B) and 522(B).

The Applicant is requested to provide a pedestrian/cycle link to application site reference 24/00270/FUL, to connect to Holloway and NCN 442.

Public Transport

The TA states there are existing bus stops within a 5-10-minute walk from the centre of both the north-east development area (Development Area 1) and the southern development area (Development Area 3). The “Cornmore” and “Abbots Grange” bus stops are the nearest stops to the site and are both located on Defford Road (B4536). The “Cornmore” bus stops are located approximately 500m (6-minute walk) north of the south-eastern corner of the site. The centre of the site is within a 600-700m walk from the “Cornmore” bus stops.

The “Abbots Grange” bus stops are located approximately 500m (6-minute walk) north of the north-east corner of the site. These bus stops are served by a number of bus routes, offering a choice of destinations to users.

The TA discusses walking distances to bus stops and refers to an article published by the Chartered Institute of Logistics and Transport (CILT), 2015. The CILT research suggests that the current guidance on how far people walk to access public transport is too rigid for the practicalities of bus service operation. The distance people walk has significant impact in transport planning, particularly in urban redevelopment projects and large-scale residential developments, with urban areas having a mean walking distance of approximately 600m and an 85th percentile walking distance of approximately 800m.

The Highway Authority does not accept that the CILT research is relevant to the consideration of the proposed development and that total journey time for public transport (including travel to the bus stop or station) must be competitive to travel by car to the destinations served, in order for bus travel to be considered as a viable and attractive alternative.

Bus Services

The Highway Authority notes that paragraph 5.21 of the TA states that the site will be designed in such a way that if there proves sufficient demand, and the local bus operator diverts buses into the site, a bus will be able to comfortably enter the site, loop around and exit, all in forward gear.

WCC officers are currently in discussions with the bus operator about how best to serve the proposed development by bus, and the adjacent application site to the north, reference 24/00270/FUL. It may be the case that a ‘loop’ is not considered to be appropriate and that the development proposals should provide for a ‘through’ service between Defford Road and Holloway.

Given the scale of the proposed development, the Highway Authority considers it reasonable and appropriate to request a financial contribution to provide a bus service, potentially by diverting the existing LMS 566 service into the site. However, to ensure at least an hourly service, this will require there to be two vehicles operating the service instead of the current single service. WCC Highways considers that for a site of the proposed scale, and cumulative proposals in this location, the bus service should operate on a half-hourly basis.

Notwithstanding the above ongoing discussions regarding a bus service to serve the development proposals, WCC Highways requests that new bus stops are provided in the vicinity of the new vehicle access on Defford Road (A4104), with an associated uncontrolled pedestrian crossing point. The northbound bus stop can be incorporated into the proposed 2.0m footway. The southbound bus stop could be an area of new hardstanding/waiting area and a short length of footway.

Community Transport

Under the 1985 Transport Act, WCC has a duty to consider the transport needs of elderly and disabled residents. A Community Transport service must be provided for all elderly and disabled residents where no suitable bus service exists for those unable to access a bus due to disability. WCC analyses this using historic trip need, DfT mileage rates and census data (for population per dwelling, disabled population statistics and age data) based on five years calculated cost. The service provides access to vital services, particularly acute health where it is no longer policy to offer appointments at the nearest facility to the resident's home address. On this basis, WCC would request a contribution towards community transport for this site of £4,573.00.

School Transport

In terms of School Transport, the site is located in the First School catchment for Abbey Park First, 0.7 miles away. However, it is understood the school does not have the capacity for the additional pupils generated by this site and, therefore, financial contributions will be required to transport students qualifying for free school transport to alternative schools.

The site is located in the Middle School catchment for Abbey Park Middle, 0.7 miles away, and it is understood there are no capacity issues. The site is located in the High School catchment for Pershore High, 1.6 miles away, which also has no capacity issues. For both schools, it is considered the existing walking routes are reasonable for students to use safely.

Based on the above, the Highway Authority will require School Transport contributions of £444,981.00 (First - £444,981.00, Middle - £0, High - £0) should the application be minded for approval.

Rail

The nearest railway station to the site is Pershore Railway Station, which is located approximately 3.8km (approximately 13-minute cycling distance, 19-minute bus ride from the "Commore" bus stop) north of the site and is accessible from the site by bicycle and via the 566-bus service, although it is noted that this is a circular service. Pershore Railway Station is typically served by hourly services, operated by the Great Western Railway (GWR), running between Oxford Railway Station and Hereford Railway Station on the Cotswold Line. Pershore Railway Station therefore offers direct connections to major cities and key employment destinations including Birmingham, Worcester, London, and Oxford.

Transport Sustainability

The TA states the application site benefits from being in proximity to a number of services, amenities and facilities that are predominantly located to the north and west of the site.

Tables 2.1, 2.2 and 2.3 of the TA provides walking and cycling distances to typical services, amenities, and facilities within Pershore along existing walking and cycling routes.

For Development Area 1, Table 2.1 indicates there is a range of facilities, including Pershore town centre, located within 2km (approximately a 25-minute walk or a 7-minute cycle). The two key destinations more than 2km are Pershore High School and Pershore College.

For Development Area 2, Table 2.2 indicates the majority of the facilities, including Pershore town centre, are located within 2km (approximately a 25-minute walk or a 7-minute cycle). Four of the facilities (excluding the High School and College) are within 2.2km.

For Development Area 3, Table 2.3 shows approximately half of the key services and facilities identified are still within 2km, with ten others (excluding the High School and College) now within 2.2km.

The Highway Authority notes convenience shop goods can be purchased from the petrol filling station on Three Springs Road and this facility is approximately 1.2km from the centre of the site. Whilst WCC Highways accepts that some prospective residents have the option to walk or cycle to surrounding services and facilities, most of the proposed development area requires residents to walk the maximum generally acceptable distance of 2km (rather than the desirable maximum of 800m), with some having to walk further. The location and proximity of the site in relation to key services and facilities within Pershore and the distances for some prospective residents will not be conducive to maximising travel by active modes, and travel by car may be perceived to be more attractive and viable. WCC Highways therefore considers that improved bus connectivity to Pershore town centre is necessary to maximise access by sustainable transport modes and reduce car dependency.

Highway Safety – Personal Injury Collisions

The TA provides analysis of Personal Injury Collision (PIC) data, which was obtained from WCC for the five-year period of 2018-2022. The review indicates there were ten PICs within the study area, comprising seven slight and three serious injuries. Seven of the PICs were located on Three Springs Road, Worcester Road or the High Street. Three PICs occurred on Defford Road (A4104), one at the site frontage and two to the south of the site. The frontage PIC involved a rear shunt collision when a moving vehicle failed to stop in time for a stationary vehicle waiting to turn right into the farm access. The two other Defford Road PICs were also primarily caused by driver error.

The TA states a review of the incidents on the local network indicates that the identified causation factors were predominantly driver error and are considered unrelated to the existing design or layout of the roadways. The TA also outlines that while there had been four collisions involving cyclists, the causation factor was a result of driver error as a result of failing to look properly for all cases. The TA concludes that there are no specific safety issues associated with the design of the existing highway network and junction arrangements in the vicinity of the site.

WCC Highways considers that the impact of proposed development on highway safety will be further considered by the requested Stage 1/2 RSA.

Traffic Generation and Distribution

The TA initially considers multi-modal trip generation and uses information derived using the TRICS database to calculate appropriate person trip rates. The TA then considers journey purpose, being (i) work commute, (ii) education and (iii) retail & leisure and forecasts total person trips for the 300 dwellings. The assessment suggests the proposed development would generate 135 two-way vehicle trips in the AM peak hour (equating to a two-way trip rate of 0.45) and 173 two-way vehicle trips in the PM peak hour (equating to a two-way trip rate of 0.58).

WCC Highways is concerned that for the post-covid TRICS trip rate analysis, many of the site surveys selected are for developments containing mixed houses and flats. Flats typically generate fewer person-trips and vehicle trips than houses, and so the Highway Authority requests further information regarding the proposed housing mix of the development. Furthermore, the site surveys selected include populations above 10,000 within a 1 mile radius, which is not comparable to the application site. In addition, WCC Highways requests that the site survey with a car ownership ratio of 0.6-1.0 is removed from the selection as this is not comparable to Pershore.

The TA advises a sensitivity test of the forecast trip generation has been undertaken utilising a nearby donor site. A vehicle trip survey was undertaken at the Desjardins Way development via an automatic traffic count (ATC) placed for one week during June 2023. The ATC recorded the movements of 150 dwellings and generated a vehicle trip rate per dwelling for the peak hours, using a 5-day average. The donor site survey/Sensitivity Test results in 23 fewer vehicle trips during the AM peak hour and 48 more trips during the PM peak hour than TRICS assessment. However, the Highway Authority notes that the Desjardins Way development is located in closer proximity to Pershore town centre and the convenience shop (petrol station) on Three Springs Road, as well as bus stops, than much of the developable area of the proposed development. **The Highway Authority also requests confirmation from the Applicant that the proposed density and housing mix of the proposed development is comparable to the Desjardins Way development.**

Trip Distribution

The TA states the distribution of vehicle trips has been undertaken using 2011 Census Journey to Work for the MSOA Wychavon 012. The distribution of trips is based on 2011 Census and main mode of travel to work. A proportion of education and leisure trips would likely route more locally. For the purpose of this assessment, this distribution is considered appropriate. The analysis suggests 21% of vehicles will route south and 79% will route north. Of the 79%, it is estimated 26% will then route west along the B4084, 23% will route north along the A4104 to the A44 and 29% will route east along Defford Road.

The Highway Authority is satisfied with the trip distribution analysis.

Highway Impact and Capacity Assessment

Traffic counts on Defford Road (A4104) were undertaken between Tuesday 31 January 2023 and Monday 6 February 2023. Further junction turning counts at the four town centre junctions to be assessed were undertaken on Tuesday 31 January 2023, to establish AM and PM peak hour periods. The junctions assessed are as follows:

- Priority Junction: B4536/ A4104 Defford Road/ Three Springs Road;
- Roundabout: Three Springs Road/ Conningsby Drive/ Petrol Filling Station; and
- Priority Junction: A4104 Three Springs Road/ B4084 Worcester Road; and
- Signalised Junction: A4104/ High Street.

The Highway Authority notes the traffic surveys were undertaken in January and February 2023. These are not neutral months, which are recommended for surveys, as set out in TAG Unit M1.2, which suggests March to November, excluding August, as more appropriate. January and February traffic flows are likely to be lower than during neutral months and will, therefore, underestimate the volumes of traffic that generally flows through the four junctions and along Defford Road (A4104) at the proposed site access. **The Applicant is requested to provide traffic surveys undertaken during neutral months or demonstrate to the Highway Authority that the surveys provided are generally comparable to typical traffic flows at the four identified junctions.**

The TA states those junctions on which the development will have an increase in total vehicle flow of 5% or more have been considered within the modelling assessment. This includes the following junctions:-

- Priority Junction: Defford Road/ Three Springs Road;
- Roundabout: Three Springs Road/ Conningsby Drive/ Petrol Filling Station; and
- Priority Junction: Three Springs Road/ Worcester Road;

In addition, the proposed site access at Defford Road has been modelled.

WCC Highways considers that the use of total percentage increases across the junction to identifying locations for further assessment is oversimplistic and may underestimate development traffic impacts, particularly where junctions experience high base flows or existing congestion. WCC Highways considers that development traffic impacts, using both percentage increases and actual flow increases, should be presented per junction arm for each junction.

WCC Highways is aware that there is interaction between the A4104/High Street signals and the A4104 Three Springs Road/B4084 Worcester Road junction, with queues extending along Worcester Road from the signals at peak times. Therefore, the Highway Authority also requests that capacity assessments of the A4104/ High Street signals are undertaken.

Furthermore, WCC Highways requests clarification regarding the committed developments that have been taken into account in the forecast year capacity

assessments and requests that planning application reference 24/00270/FUL is also included as a sensitivity assessment to determine potential cumulative development impacts.

Detailed comments regarding the junction capacity (modelling) assessments based on the information provided within the TA have been provided in Jacobs Technical Memorandum dated 8 February 2024, appended at Appendix A. WCC Highways requests that the base models for each junction are provided in order to confirm that these are suitably calibrated and validated, and provide an appropriate platform for development impact testing.

The Applicant should be advised that should the Highway Authority require the main spine road to connect to application site reference 24/00270/FUL, an assessment of the development impact at the Holloway junction will also be required.

Site Layout

The Applicant has submitted Drawing. No. P22-2506_DE_0008/G 'Illustrative Masterplan', which WCC Highways consider to be indicative of the way in which the development proposals are intended to be brought forward. Whilst it is acknowledged the plan is indicative only and will be subject to subsequent reserved matters approval, the Highway Authority offers the following comments to assist the preparation of a future reserved matters application:-

- The main spine road/primary residential street to be provided at a minimum width of 6.1m where it will also serve as a bus route;
- The main spine road may be required to connect to the northern-most application site boundary, such that a connection through to application site 24/00270/FUL can be made for buses;
- The proposed design speed of the internal street network is to be confirmed and would be expected to be 20mph, achieved through use of horizontal alignment and the Highway Authority discourages the use of vertical traffic management features;
- Suitable forward visibility splays and internal junction visibility splays must be provided in accordance with the design speed and not to traverse land that will be transferred to a third party;
- The Applicant's intention in respect of street lighting provision should be confirmed. The Highway Authority will not adopt shared surfaces or traffic calming features that are not lit. The Applicant shall employ a suitably qualified lighting engineer to carry out a lighting assessment, in line with the requirements of the WCC Street Lighting Design Guide;
- Swept path analysis should be provided, including all access and turning head areas for the following vehicles:
 - 11.3m length (with tailgate raised) refuse vehicle;
 - Appropriate bus vehicle (dimensions tbc);
 - Pantehnicon (large furniture removals wagon); and
 - 8.7m length Hereford and Worcester standard fire appliance.
- 2.0m wide footways should be considered on both sides of the internal access road;

- Crossing facilities, with tactile paving, should be provided to ensure a safe route for pedestrians within the site;
- Further information is requested to ensure cycle movements have been considered and appropriate infrastructure provided on-site;
- As per guidance contained within Building Regulations Part H, refuse collection workers should not be required to pull wheely bins greater than 25m. Residents must not be required to carry waste more than 30m to a refuse collection/ storage point;
- Fire engines should be able to access within 45m of every dwelling - in accordance with Building Regulations Part B;
- Fencing should be provided to prevent pedestrian ingress into any proposed attenuation basins;
- All structures within the highway or within 4 yards of the highway will need to achieve WCC/Jacobs structure approval and this includes noise bunds/mitigation and Severn Trent Water adoptable drainage structures. All structures design checking costs incurred are to be covered by the Applicant/Developer; and
- Details of highway surface water drainage must be submitted. WCC will usually only consider adopting new highways under a S38 Agreement if proposed highway drainage discharges directly into STW adopted sewers or if drainage structures and basins are adopted by a statutory body. The developer will need to have secured a S104 Agreement to adopt the proposed storm drainage system before WCC will consider adopting any highways.

Street Lighting

There is no confirmation that street lighting is to be provided, either at the new site access with Defford Road or within the site. **The Highway Authority would make the following comments in relation to streetlighting and request confirmation from the Applicant as to the intended streetlighting proposals:**

- Street lighting is limited in the area, assets are mainly Parish Council, which means the lighting is not to standard, not adopted and not suitable for major highways developments including new conflict areas and zebra crossings;
- Compliance of existing lighting with LTN1/20 is unknown but it is best to assume it is non-compliant until proven otherwise;
- There are records of completely light-averse bat species – lesser horseshoe bats – in the woods. Please note, there is no proven mitigation to reduce impact on this species;
- The bat surveys have only covered the internal of the development and not the external elements. The Highway Authority will need to understand if the changes will be lawful.;
- Full bat surveys of everywhere lighting will interact are required to confirm the project is lawful;
- Please note the gaps provided by the Parish lighting will enable protected species to move about mostly unhindered due to provision of dark corridors;
- Because of the gaps – dark corridors - this means typically all lighting will need upgrading, extending or enhancing to be to standard and suitable for development;

- As the lighting will be required to be to standard, this will create a uniform lit barrier which will restrict or stop existing bat movement across the site, not just between the woods and the river Avon;
- Any additional lighting will likely impact on any bats roosting within trees or properties (all buildings not just listed buildings) adjacent to the A4104, i.e., The Spinney and the cemetery so other areas must not be forgotten as roosts will be used to enable commuting to the woods and river;
- The proposed Zebra crossing is adjacent to the cemetery and it is likely bats are roosting in the area so the developer will need to confirm they are not roosting before this is conditioned as part of the development;
- Pedestrian crossings continue to be a challenge because of bats but also due to the significant increase in lighting levels and complaints from local residents; and
- Application of LTN120 from an urbanised point of view could lock bats into certain properties – properties adjacent to any cycle paths should be surveyed to ensure bats are not roosting and lighting is viable.

The site access and internal development will need a full strategic lighting proposal. A lighting report will need to be submitted, which must comply with the WCC Street Lighting Design Guide. The lighting report must be discussed with the WCC Ecology Officer.

To protect ecology, residential amenity, minimise energy consumption and maintenance cost, all applications should commence with the assumption that all works are to remain unilluminated. Applicants shall complete a Street Lighting Feasibility Assessment prior to commencing any form of discussion with WCC Street Lighting Officers to justify the use of adoptable Street Lighting within their proposals.

Failure to provide a Street Lighting Feasibility Assessment or to engage with WCC Street Lighting during the planning application process will lead to WCC to consider the development as unsuitable for the use of adoptable street lighting, which may prejudice the future adoption of the internal street network.

Refuse and Servicing Strategy

Details of a refuse and servicing strategy shall be provided as part of a future reserved matters application.

Parking

The TA states that on-site vehicle parking provision will comply with the standards set out in WCC SDG. As part of a future reserved matters application in regard to Layout, the Highway Authority will require details of the type of cycle storage, which shall be covered and secure, and the type and number of cycle parking spaces.

Details of electric charging facilities of ultra-low emissions vehicles (ULEV) must also be provided in future reserved matters applications. WCC Highways will not accept trailing cables across footways.

Highway Adoption/ S38 Agreement

The TA states that the main routes through the site, as well as all active travel routes adjacent to the highway, will be offered for adoption. This does not include footways divorced from the carriageway nor shared surface/ cul-de-sac/ courtyard arrangements. For any internal streets intended to be offered for adoption, the layout/ arrangement will need to conform to WCC SDG standards and the Applicant will be required to enter into a S38 Agreement with the Highway Authority. Appropriate drawings and details will need to be submitted and a suitable layout agreed.

S278 Agreement

As the proposals involve modifications to the existing public highway, there will be a requirement for the Applicant to enter into a S278 Agreement with WCC. The Agreement will require a detailed design of the proposed improvements to be submitted to and approved by the Highway Authority with all associated costs paid by the Applicant.

WCC Highways considers that contributions towards the proposed Farleigh Road dropped kerb pedestrian crossings and the requested wayfinding signage should be secured via S106 agreement.

Travel Plan

The Applicant has not submitted a draft Residential Travel Plan (TP) for the proposed development. However, the TA outlines measures, including personalised travel planning and the opportunity to offer residents incentives to encourage the use of sustainable modes of travel.

In the pre-application response, the Highway Authority did suggest WCC may be able to offer its TP service. The TA states the following:-

“WCC have proposed that their PTP service can be implemented in place of a Travel Plan (TP).”

However, upon review of this application, WCC is unable to deliver a PTP service to this development, at this time. **The Applicant is therefore required to submit a TP in support of the development proposals prepared in full accordance with the WCC ‘Guidelines for producing Residential Travel Plans’ document.**

The Applicant will also need to prepare Welcome Packs for each dwelling, which should be consistent with guidance set out in the WCC Guidelines for Travel Welcome Pack document. A draft must be sent to travelplans@worcestershire.gov.uk for approval before first occupation and can be secured by suitable conditions if planning consent were subsequently granted.

Construction Traffic Management

No details have been provided in respect of the construction stages of the development. A Construction Traffic Management Plan, setting out the proposed hours of operation, vehicle routing, access proposals and site details, will be required by condition attached to any planning consent that may be granted.

Conclusion

The Highway Authority has undertaken a robust assessment of the planning application. Based on the analysis of the information submitted, and recommends **DEFERRAL** until further information has been submitted by the Applicant to address the following matters:

- **The Applicant is requested to widen the spine road to 6.1m.**
- **The Highway Authority requests that consideration is given to providing a central island in the middle of the site access bell-mouth junction.**
- **The Applicant is requested to confirm the proposed gradient of the site access road.**
- **The Applicant is requested to undertake a Stage 1/2 Road Safety Audit (RSA) compliant with DMRB GG119 Road Safety Audit at planning application stage. The Applicant must submit the RSA brief to WCC Highways for agreement in advance of the audit being undertaken. The RSA brief should include the full access proposals for vehicles and active travel modes, and any other proposed highway modifications associated with the development proposals.**
- **The Applicant is requested to confirm the gradient of the proposed pedestrian/cycle access.**
- **The Applicant is requested to provide a pedestrian/cycle connection to the proposed development site to the north, application reference 24/00270/FUL.**
- **WCC Highways requests that all proposed pedestrian and cycle provision is included within the RSA1/2 Brief for audit. Speed surveys should also be undertaken proximate to the proposed Zebra crossing location and included within the Brief.**
- **WCC Highways also requests that the Applicant provides wayfinding signage to assist pedestrians and cyclists navigating between the site and Pershore town centre.**
- **The Applicant is requested to provide of a pedestrian/cycle link to application site reference 24/00270/FUL, to connect to Holloway and NCN 442.**
- **Notwithstanding ongoing discussions regarding a bus service to serve the development proposals, WCC Highways requests that new bus stops are provided in the vicinity of the new vehicle access on Defford Road (A4104), with an associated uncontrolled pedestrian crossing point. The northbound bus stop can be incorporated into the proposed 2.0m footway. The southbound bus stop could be an area of new hardstanding/waiting area and a short length of footway.**
- **WCC Highways is concerned that for the post-covid TRICS trip rate analysis, many of the site surveys selected are for developments containing mixed houses and flats. Flats typically generate fewer person-trips and vehicle trips than houses, and so the Highway Authority requests further information regarding the proposed housing mix of the development. Furthermore, the site surveys selected include populations above 10,000 within a 1mile radius, which is not comparable to the application site. In addition, WCC Highways requests that the site survey with a car ownership ratio of 0.6-1.0 is removed from the selection as this is not comparable to Pershore.**

- The Highway Authority requests confirmation from the Applicant that the proposed density and housing mix of the proposed development is comparable to the Desjardins Way development.
- The Applicant is requested to provide traffic surveys undertaken during neutral months or demonstrate to the Highway Authority that the surveys provided are generally comparable to typical traffic flows at the four identified junctions.
- WCC Highways considers that the use of total percentage increases across the junction to identifying locations for further assessment is oversimplistic and may underestimate development traffic impacts, particularly where junctions experience high base flows or existing congestion. WCC Highways considers that development traffic impacts, using both percentage increases and actual flow increases, should be presented per junction arm for each junction.
- WCC Highways is aware that there is interaction between the A4104/High Street signals and the A4104 Three Springs Road/ B4084 Worcester Road junction, with queues extending along Worcester Road from the signals at peak times. Therefore, the Highway Authority also requests that capacity assessments of the A4104 /High Street signals are undertaken.
- WCC Highways requests clarification regarding the committed developments that have been taken into account in the forecast year capacity assessments and requests that planning application reference 24/00270/FUL is also included as a sensitivity assessment to determine potential cumulative development impacts.
- Detailed comments regarding the junction capacity (modelling) assessments based on the information provided within the TA have been provided in Jacobs Technical Memorandum dated 8 February 2024, appended at Appendix A. WCC Highways requests that the base models for each junction are provided in order to confirm that these are suitably calibrated and validated, and provide an appropriate platform for development impact testing.
- The Applicant should be advised that should the Highway Authority require the main spine road to connect to application site reference 24/00270/FUL, an assessment of the development impact at the Holloway junction will also be required.
- The site access and internal development will need a full strategic lighting proposal. A lighting report will need to be submitted, which must comply with the WCC Street Lighting Design Guide. The lighting report must be discussed with the WCC Ecology Officer.
- The Applicant is required to submit a TP in support of the development proposals prepared in full accordance with the WCC 'Guidelines for producing Residential Travel Plans' document.

Yours sincerely

Karen Hanchett

Transport Planning and Development Management Team Leader

Appendix A:

Modelling Audit Technical Memorandum