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**Economy and
Infrastructure**
Development Control
Engineer
County Hall
Spetchley Road
Worcester
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Date: 27 September 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 **no objections subject to planning conditions and obligations.**

The justification for this decision is provided below and the necessary conditions and obligations are detailed at the Conclusion.

WCC Highways has previously provided formal responses, dated 17 April 2024 and 1 July 2024 recommending deferral on the grounds that insufficient information had 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.

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The Highway Authority is now in receipt of a Technical Note (TN) prepared by SLR (May 2024), a Paramics Microsimulation model of the A4104 Three Springs Road/Worcester Road junction and Worcester Road/Station Road junction and updated standalone junction models.

On 8 July 2024, the Applicant lodged a planning appeal against non-determination of the application by the Local Planning Authority. Since that time, WCC Highways has been working with the Appellant to resolve the outstanding highway and transport matters. A Statement of Common Ground was agreed between WCC Highways and the Appellant and submitted to the Planning Inspectorate dated 29 August 2024.

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.

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 6.1m 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 227119 _PD14-4 Rev B _Proposed Site Access – Right Turn Facility General Arrangement & Visibility Assessment, 227119 _PD14 Rev A Overview Plan of Proposed Right Turn Facility, 06842-CI-D-0100-P07 Junction General Arrangement, 227119 _PD14-1 Rev A Proposed Footway Alignment 50mph. WCC Highways is satisfied that the proposed site access and spine road dimensions are suitable for the size and type of vehicles requiring access. The alignment of the internal street network will be further reviewed and agreed at reserved matters – Layout stage.

A central island has not been provided within the bellmouth, but instead dropped kerbs and tactile paving have been provided at a crossing point further into the site as shown in drawing 227119 _PD14-4 Rev B _Proposed Site Access – Right Turn Facility General Arrangement & Visibility Assessment.

In WCC Highways' previous response, it was suggested that the Applicant 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 Highway Authority accepts that given the topography and constraints of the application site, a spine road connection to application site 24/00270/FUL is not feasible or viable and would adversely impact on the layout of both proposed developments to the detriment of placemaking. WCC Highways is also satisfied that the spine road through the application site will provide a loop for any potential future bus service.

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 4.5m x 160m northwards and southwards are appropriate for the site access and submitted drawing 227119 _PD14-4 Rev B _Proposed Site Access – Right Turn Facility General Arrangement & Visibility Assessment shows these can be achieved.

The Worcestershire SDG outlines that the desirable gradient for all new roads is 1:20 (5%) but that gradients of 1:12 (8%), which do not exceed a length of 30m, may be considered. The TN explains that the proposed gradient of the site access road is 5% (1:20) from the junction give way line 20m into the site followed by a vertical curve with K value of 6, followed by a grade of 8% (1:12) as shown in drawing 06842-CI-D-0100-P07 Junction General Arrangement. WCC Highways is satisfied that the first 70m of the proposed access road/spine road is proposed in accordance with Worcestershire's SDG.

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 Mayville Close and Henderson Drive, 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.

Stage 1 Road Safety Audit (RSA1)

An RSA1 and Designer's Response has been provided within the TN for the proposed vehicular access and associated pedestrian provision at Defford Road. The following safety problems have been identified:

1. Proposed site access junction

Problem: Existing vegetation may obscure visibility splay to the left of the site access potentially leading to sideswipe type collisions. Onsite observations noted that the presence of existing vegetation may constitute an obstruction to the junction visibility. Obstruction to the junction visibility splays may lead to injudicious vehicle movements at the proposed junction, potentially leading to side swipe type collisions between vehicles.

Recommendation: The vegetation to the left of the site access junction be cut back and maintained such that it does not pose an obstruction to the visibility splays.

Designer's Response: Drawing No. 227119 – Proposed Footway 50mph has been updated to include a 4.5m x 160m visibility splay and confirmation that the vegetation which would be required to be cut back is entirely within land controlled by the applicant or the adopted highway boundary. The updated visibility splays are shown in Drawing No. 227119-PD12.4 – Proposed Site Access – Right Turn Facility – General Arrangement and Visibility Assessment. This drawing is included at Appendix B.

WCC Response: Accepted. A condition will be secured against any consent that may be granted, requiring the visibility splay to remain free of obstruction for the lifetime of the development.

2. Ghost island at site access

Problem: The lead in taper appears too short for the recorded 85th percentile speeds leading to shunt type collisions. The lead in taper length at the ghost island appears too short and would not give drivers enough time to safely merge onto the right-hand turn lane and could lead to loss of control or rear end shunt type collisions.

Recommendation: It is recommended that a longer taper length is provided as this would allow drivers more time to adjust their speed and merge smoothly, reducing the risk of collisions.

Designer's Response: Drawing No. 227119 – Proposed Footway 50mph has been updated to include a longer taper length. The taper length has been increased to 87.5m north and south of the right turn facility in line with DMRB requirements. The updated taper is shown in Drawing No. 227119-PD12.4 – Proposed Site Access – Right Turn Facility – General Arrangement and Visibility Assessment. This drawing is included at Appendix B.

WCC Response: Accepted. Should a Departure from Standards application be required, this will need to be approved through the S278 process. Planning approval should not be misconstrued as approval for any Departure from Standards application that may be required.

3. Proposed footway along the Cemetery frontage

Problem: Trees are overhanging onto the footway reducing the effective width for pedestrians. The existing trees are overhanging, reducing the effective width and causing an obstruction on the footway. This could cause pedestrians to step into the carriageway to avoid obstacles/ other pedestrians, which could lead to pedestrians being struck by passing vehicles.

Recommendation: It is recommended that the existing trees are regularly maintained/ pruned to ensure the safety of the pedestrians walking along this footway.

Designer's Response: This is an existing maintenance issue, and it is expected that the Highway Authority will regularly inspect the adopted highway under their control and cut back any vegetation which is inhibiting movement around the network.

WCC Response: Not accepted. Whilst WCC Highways has an ongoing maintenance programme for vegetation, verges etc, it is not always possible to address issues as they occur, particularly during the peak growing season. As the proposals will increase pedestrian use of the footway, WCC Highways will seek to secure a condition requiring that the trees are pruned prior to the development being brought into use and maintained as such for the life of the development.

The Applicant has subsequently provided an RSA1 for the proposed Zebra Crossing on Three Springs Road. This identified one safety problem as a result of vegetation and trees overhanging the associated footway, potentially causing pedestrians to step into the carriageway. The RSA recommends that the vegetation is cutback and maintained thereafter to address the problem identified. This is accepted by the Designer and Highway Authority and can be further addressed at detailed design and implementation stage, should consent for the proposals be 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.

In WCC Highways previous response, it was requested that the Applicant confirm the gradient of the new pedestrian/ cycle access is proposed at the south-eastern corner of the site, connecting Defford Road (A4104) to the residential development. The TN confirms that gradient of the proposed shared-use path is 1:20, as shown on drawing 06842-CI-D-0101-P03 Path General Arrangement.

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.

In WCC Highways previous response, it was requested that the proposals include a pedestrian/cycle connection to Holloway Phase 2 (application reference 24/00270/FUL) and NCN 442. The TN outlines that:

The Land off Holloway Phase 2 development (application reference 24/00270/FUL) proposes a 3.0m shared footway/cycleway connection at the southern extent of the development. We assume that this is a potential desired connection point for a footway/cycle link into the Orchard Farm (this development). The proposed levels of the Land off Holloway Phase 2 development have been reviewed at the potential connectivity point (referenced to drawing 23506-RLL-24-XX-DR-C-0025 RevP03).

The proposed level of the footway/cycleway is approximately 36.100. Note that this is approximately 1.2m above the existing ground level of the existing hedgerow located 1.9m south.

The continuation of the 3.0m provision is to potentially connect into the proposed emergency access road presented on drawing 227119_PD14-2 Rev A_Proposed Emergency Access Route (included at Appendix B). The route would need to avoid the tree to the south (inclusive of its root protection zone) and require the removal of a section of the existing boundary treatment for a direct link to be established.

The emergency access road which also provides a footway/cycle link within the Orchard Farm development has proposed levels aligned to the existing ground topography. If a direct link between the Holloway shared route and emergency access route were proposed (as indicated by the redline within the extract below), the level difference would be approximately 2.29m (36.100 – 33.810) over a length of ~15m. The gradient of the route would be 1 in 6.5 which is not DDA compliant but is compliant with inclusive mobility as it remains within a 5% gradient.

It is noted that further to the east of the southern turning head of the Holloway Phase 2 development, there appears to be a break in the boundary treatment and a more suitable location for a potential connection that avoids impact on the existing tree and requirement to remove existing vegetated boundary treatments. The alternative route outlined by the 'blue' line within Figure 3 increases the length of a potential footway/cycleway connection to ~33m and the level difference would be approximately 2.74m (35.8-33.06). The gradient of the route would be 1 in 12 and landings and resting places would need to be duly considered.

The Highway Authority is satisfied that a pedestrian/cycle connection to Holloway Phase 2 can be achieved, subject to changes to the Holloway Phase 2 layout plan at the southern extent of the site. As the Applicant is willing to accept the principle of the Holloway Phase 2 development connecting a shared use path to the Emergency Vehicle access, the safeguarding of land within the application site to enable this connection in future, should Holloway Phase 2 be granted consented, should be secured via S106 agreement.

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. The Highway Authority considers the Zebra Crossing to be necessary to ensure the development site is served by safe and suitable access for all and is served by a genuine choice of sustainable (and active) travel modes.

In WCC Highways previous response it was requested that the Applicant provides wayfinding signage to assist pedestrians and cyclists navigating between the site and Pershore town centre. The TN confirms that the Applicant would provide a contribution towards wayfinding signage, secured via a S106 agreement.

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.

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 to serve the site. In discussion with the service operator, it has been determined that it would be possible to divert the existing 566 service into the site four times per day. However, as

the diverted service would not meet typical commuter travel periods and would only route through the site every two hours, WCC Highways considers that it is necessary for the diverted bus service to be complemented by Demand Responsive Transport (DRT), to ensure that a genuine choice of sustainable transport modes is available to residents. The Applicant has agreed to provide the required contributions towards the diversion of the 566 service into the site and the extension of the existing DRT service area.

Transport Sustainability

The TA states that 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. However, WCC Highways is satisfied that the proposed active travel connections, in combination with the diversion of the 566 bus service and extension of the DRT service area, would offer future residents a genuine choice of travel by sustainable transport modes.

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).

In WCC Highways' previous response, it was outlined that for the post-covid TRICS trip rate analysis provided within the TA, many of the site surveys selected were for developments containing mixed houses and flats. Flats typically generate fewer person-trips and vehicle trips than houses, and so the Highway Authority requested 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 requested 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 Applicant has subsequently provided further analysis of the post-covid trip rates including TRICS outputs. WCC Highways remains concerned that the sites selected are not comparable to the application site in terms of proximity to key services/facilities and public transport provision and therefore, the post-covid trip rate analysis is not accepted.

The TA also advises that 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 noted 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 therefore requested confirmation from the Applicant that the proposed density and housing mix of the proposed development is comparable to the Desjardins Way development.

The Highway Authority notes the additional information provided in the TN regarding the Desjardins Way donor site and is satisfied that the surveys provide a robust basis to derive a sensitivity assessment vehicular trip rate for the development proposals. However, WCC Highways maintains that Desjardins Way is located within closer proximity to Pershore town centre and key facilities and services than the proposed development site, making active travel a more viable and attractive mode choice.

For the purposes of the highway impact and capacity assessments, the Applicant utilised the initial vehicular trip rates outlined in the TA, derived from TRICS (0.45 AM peak hour and 0.58 PM peak hour). Whilst the Highway Authority does not accept or endorse the vehicular trip rates, which are likely to underestimate the total traffic generation of the development proposals, it is WCC Highways own analysis concludes that an increase to a more typical trip rate for a proposed residential development in this location/level of accessibility is unlikely to materially change the conclusions drawn from the capacity assessments provided.

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;
- Priority Junction: A4104 Three Springs Road/ B4084 Worcester Road; and
- Signalised Junction: A4104/ High Street.

In the Highway Authority's previous response it was noted the traffic surveys were undertaken in January and February 2023, which historically have not been considered neutral months. However, it is noted that TAG Unit M1.2 was revised in May 2024 and no longer refers to neutral months. Nevertheless, it remains incumbent on the Applicant to demonstrate that traffic survey periods would reflect typical traffic conditions.

The TN provides that the surveys were undertaken during weekdays and did not fall within a public or school holiday and no roadworks were present on the surveyed roads. The TN also suggests that the surveys demonstrate that traffic flows are comparable to those derived from traffic surveys for planning application W/19/01718/FUL Land to the West of Station Road. However, the Highway Authority notes that surveys for Land to West of Station Road are 5 years old (4 years when compared to the 2023 surveys supporting the application) and pre-Covid 19. Notwithstanding, the Highway Authority is unlikely to be able to successfully sustain an objection on the basis of the traffic surveys provided and, as above, it is considered that new surveys would be unlikely to materially change the conclusions drawn from the capacity assessments provided.

Junction capacity assessments have been provided for the following locations:

- Site Access/Defford Road;
- Priority Junction: A4104 Three Springs Road/Defford Road;
- Roundabout: A4104 Three Springs Road/ Conningsby Drive/ Petrol Filling Station; and
- Priority Junction and signal controlled junction: A4104 Three Springs Road/ Worcester Road and High Street/Station Road (Paramics microsimulation model).

The Highway Authority accepts that for the standalone junction models (Site Access/Defford Road, Priority Junction: A4104 Three Springs Road/Defford Road and Roundabout: A4104 Three Springs Road/ Conningsby Drive/ Petrol Filling Station), the models calibrate and validate to an acceptable level and the junctions are forecast to operate within capacity in the forecast year 'with development' scenario.

A4104 Three Springs Road/ Worcester Road and High Street/Station Road (Paramics microsimulation model).

In WCC Highways' previous response it was noted that the modelled network is relatively sparse and does not enable the reassignment effects of the development proposals to be understood. In particular, traffic reassigning to other local routes to avoid delays on the

A4104 Three Springs Road (extending from the junction with Worcester Road) in future years will not be captured by the model. Any delays on the A4104 Three Springs Road side arms will also not be captured. The Applicant is currently in the process of undertaking a traffic reassignment assessment to identify the scale of traffic rerouting along Holloway and Rebecca Road as a result of the increased traffic demand generated by the development proposals on the A4104 Three Springs Road. However, due to roadworks, the required traffic surveys cannot be undertaken until October 2024.

Notwithstanding that the reassignment analysis is yet to be provided, WCC Highways accepts that in the absence of dynamic traffic reassignment, the Paramics modelling assessment provides a robust 'worst case' assessment of the development impact the A4104 Three Springs Road/Worcester Road junction. In addition, and as explored further below, the significant impacts of the development at the A4104 Three Springs Road/Worcester Road junction are cost-effectively and proportionately mitigated such that vehicle queues during network peak periods return to levels that would be experienced in 2030 without the development being brought forward. On this basis, the Highway Authority considers that the reassignment effects of the development proposals are unlikely to be significant or severe and that an objection could not be successfully sustained in this regard.

In WCC Highways' previous response it was noted that the model calibrates adequately to volumetric data. However, WCC Highways is concerned that there are some significant differences between modelled and observed journey times, particularly on the A4104 Three Springs Road. Typically, a 15% criteria would be used for a model of this size as the 60 second criteria is redundant given the short journey time routes. It is noted that the journey times on the A4104 Three Springs Road are around 30% too fast in both directions. As this difference is in both directions it could be that the model is overestimating link speeds rather than junction delay. This overestimation of link speeds could be important where route choice is available. However, the Highway Authority is satisfied that addressing the identified journey time difference in the Paramics base model is unlikely to materially change the conclusions drawn from the capacity assessment i.e. the scale of the development impact on vehicle queues on the A4104 Three Springs Road and the highway solution required to mitigate the development impact is unlikely to change.

In the forecast year 'with development' scenarios, vehicle queues on the A4104 Three Springs Road arm of the A4104 Three Springs Road/Worcester Road junction are shown to increase from 143m to 245m (+102m) during 0800-0900 and 20m to 148m (+128m) during 0900-1000. Vehicle queue increases are also shown to occur during the forecast year 'with development' scenario during the PM peak period, but to a lesser degree than the AM peak period. The increase in vehicle queue length on the A4104 Three Springs Road is primarily caused as vehicles are prevented from turning right onto Worcester Road by the vehicle queue extending from the A4104 Station Road/Worcester Road/High Street signals.

WCC Highways considers the increase in vehicle queue length on Three Springs Road generated by the proposed development to be significant and without mitigation, would result in severe and unacceptable highway safety impacts as vehicles block side road arms.

It is also considered that the associated increase in journey times and delay could potentially result in driver frustration and hazardous driver behaviours.

The Applicant has proposed mitigation at the A4104 Station Road/Worcester Road/High Street signals by allocating additional 'green' time to the Worcester Road approach. The signals currently operate under MOVA signal control, which is a dynamic signal control system that adapts green times to prioritise approaches experiencing heavy traffic demands and improve the operational efficiency of junctions. In the 'with mitigation' scenario vehicle queues on the A4104 Three Springs Road arm reduce to 124m during 0800-0900 and to 21m during 0900-1000.

The Highway Authority is satisfied that subject to a £15000 developer contribution, the MOVA signal control can be revalidated to ensure additional green time can be provided to the Worcester Road arm during network peak periods. In addition, an extra queue detection loop can be provided on Worcester Road, proximate to the Three Springs Road junction, so that extended vehicle queues on Worcester Road would be detected by the signal controller and the Worcester Road arm prioritised in terms of green times when vehicle queues would potentially block the Three Springs Road/Worcester Road junction.

Street Lighting

WCC Highways has advised the Applicant that at the proposed location of the Zebra Crossing, Three Springs Road is illuminated with more ecologically sensitive streetlighting than typical levels (lighting standards BS5489 and TR12) given the known environmental constraints. However, subject to an assessment by a competent lighting engineer at detailed design stage, the Highway Authority is reasonably confident that there would be a feasible and deliverable lighting solution to ensure the Zebra Crossing is appropriately lit.

The Highway Authority is satisfied that a Streetlighting Assessment for the proposed development's internal street network, undertaken in accordance with Worcestershire's Streetlighting Design Guide, could be undertaken prior to works commencing on site. This must be secured by an appropriately worded planning condition.

To protect ecology, residential amenity, minimise energy consumption and maintenance cost, all assessments should commence with the assumption that all internal streets are to remain unilluminated.

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 standards set out within the Streetscape Design Guide 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 TN provides an Interim Travel Plan at Appendix H. A Full Travel Plan will be secured by condition should consent be granted, to be submitted to and approved in writing by the LPA, subject to consultation with WCC Highways.

Targets

Section 6 the Travel Plan outlines the targets, indicating that travel surveys will be undertaken within three months of meaningful occupation to determine the baseline modal split. The targets will then be quantified and agreed with WCC in line with the results of these surveys. It is envisaged that this target would be focussed on a reduction in single occupancy vehicle use.

Whilst this approach is acknowledged, initially it is recommended that the modal split should be estimated using Census 2011 Journey to work data and targets should be set accordingly with adjustments made once baseline modal split from the travel survey is available. Targets should be aligned with WCC travel plan guidance, which quotes DfT guidance stating a reduction in commuter car usage between 11% and 21%. The Travel Plan must include a target for reducing single occupancy car use over 5 years, aiming to match this figure. WCC Highways expect the first-year monitoring report to include a table presenting baseline modal split numbers, with survey results submitted to the Travel Plan Officer at WCC within two months of the survey.

Travel Plan Measures and Initiatives

Section 8 of the Travel Plan outlines measures aimed at promoting and encouraging residents to travel via sustainable modes of travel, including walking and cycling, public transport, and car sharing. Whilst these are welcomed by WCC Highways, the Highway Authority expects to see further measures to encourage residents to travel by sustainable travel options and reduce car dependency. For example, offering residents taster tickets for bus/ rail services or providing bike service vouchers and maintenance workshops. It should also be ensured that these initiatives are in line with the targets.

Finance Plan

WCC guidance states that a budget should be included which covers the costs of implementing the travel plan and should include the cost of employing the Travel Plan Coordinator, cost of implementing the measures, marketing and cost of monitoring the travel plan. This budget should cover the time from first occupation of the development on a year-

by-year basis until five years after full occupation. This information should be included in the Travel Plan.

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 **no objections subject to planning conditions and obligations.**

Yours sincerely

Karen Hanchett

Transport Planning and Development Management Team Leader

Planning Conditions

1. Conformity with Submitted Details

The development hereby approved shall be carried out broadly in accordance with drawing Proposed Emergency Access Route (ref: 227119-PD14.2 Rev A).

Reason: To ensure an emergency vehicle access is provided to serve the development in the event that the primary vehicular access is blocked or obstructed.

2. Site Access

Before Development commences, a detailed schedule of works and design for the site access works at Defford Road, including pedestrian footway provision and shared-use access path, shall be submitted to and approved in writing by, the Local Planning Authority. The development shall not be first occupied until the submitted detailed scheme, which is broadly in accordance with SLR drawings 227119_PD14-4 Rev B_Proposed Site Access – Right Turn Facility General Arrangement & Visibility Assessment, 227119_PD14 Rev A

Overview Plan of Proposed Right Turn Facility, 06842-CI-D-0100-P07 Junction General Arrangement, 227119_PD14-1 Rev A Proposed Footway Alignment 50mph and 227119_PD14-3 Rev A Proposed Footway Alignment End of Shared Route, 06842-CI-D-0101-P03 Path General Arrangement subject to any minor modifications identified during the detailed design and Road Safety Audit processes, has been agreed in writing by the Local Planning Authority, in consultation with Worcestershire County Council Highways, and has been implemented in full.

Reason: In the interests of achieving safe and suitable highway access for all users.

3. Visibility Splays

The Development hereby approved shall not be occupied until visibility splays, as shown on SLR 227119_PD14-4 Rev B_Proposed Site Access – Right Turn Facility General Arrangement & Visibility Assessment, are provided from a vertical point 1.05m above carriageway level at the centre of the site vehicular access at Defford Road and 4.5m back from the near side edge of the adjoining carriageway, (measured perpendicularly), for 160m in both directions, measured along the nearside edge of the adjoining carriageway (vertical off set of 0.6m). Nothing shall be planted, erected and/or allowed to grow on the triangular areas of land so formed which would obstruct the visibility described above.

Reason: In the interests of highway safety, particularly that driver visibility splays and stopping sight distances at the vehicle access on Defford Road are commensurate with the legal speed limit.

4. A4104 Three Springs Road Zebra Crossing

The Development hereby approved shall not be occupied until a detailed design for the Zebra Crossing at the A4104 Three Springs Road (which is generally in accordance with SLR drawing 227119_SK09 Proposed Footway Alignment Zebra Crossing), including streetlighting design, has been submitted to and approved in writing by, the Local Planning Authority, and implemented in full accordance with the approved details.

Reason: To ensure the development site is provided with a genuine choice of sustainable travel modes, to maximise accessibility to Pershore Town Centre by active travel modes and in the interests of highway safety particularly vulnerable pedestrians.

5. Residential Travel Plan

The Development hereby approved shall not be first occupied until a Travel Plan prepared in accordance with Worcestershire County Council's prevailing guidelines for residential travel plans, has been submitted to and approved in writing by the Local Planning Authority. This Plan will thereafter be implemented, monitored for a minimum of 5 years and shall be updated in agreement with Worcestershire County Council's Travel Plan Officer and thereafter implemented as updated.

Reason: To ensure residents of the development site are offered a genuine choice of sustainable travel modes and to promote sustainable access to the development site.

6. Residential Travel Welcome Pack

The Development hereby approved shall not be occupied until the applicant has submitted to and had approval in writing from the Local Planning Authority a residential travel welcome pack promoting sustainable forms of access to the development, prepared in accordance with Worcestershire County Council's Guidelines for Travel Welcome Packs. The pack shall be made available for each dwelling hereby approved prior to first occupation.

Reason: To ensure the residents of the development site are offered a genuine choice of sustainable travel modes and to promote sustainable access to the development site.

7. Construction Traffic Management Plan

The Development hereby approved shall not commence until a Construction Traffic Management Plan has been submitted to and approved in writing by the Local Planning Authority. This shall include but not be limited to the following:

- Measures to ensure that vehicles leaving the site do not deposit mud or other detritus on the public highway;
- Details of site operative parking areas, material storage areas and the location of site operatives facilities (offices, toilets etc);
- The hours that delivery vehicles will be permitted to arrive and depart, and arrangements for unloading and manoeuvring.
- Details of any temporary construction accesses and their reinstatement.

The measures set out in the approved Plan shall be carried out and complied with in full during the construction of the development hereby approved. Site operatives' parking, material storage and the positioning of operatives' facilities shall only take place on the site in locations approved by in writing by the local planning authority.

Reason: To ensure the provision of adequate on-site facilities and in the interests of highway safety.

8. Surface Water Drainage

No works in connection with the site access, spine road, internal street network or site drainage shall commence until details of the provision for the sustainable disposal of surface water within the site so as to prevent its discharge onto the highway have been submitted to and approved in writing by the Local Planning Authority. The development shall not be occupied until the drainage scheme has been implemented in full accordance with the approved details.

Reason: In the interests of ensuring adequate surface water drainage and in the interests of highway safety.

9. Streetlighting

No works in connection with the site access, spine road or internal street network shall commence until a lighting assessment undertaken in accordance with Worcestershire County Council's Street Lighting Design Guide have been submitted to, and approved in writing by the Local Planning Authority. The development shall not be occupied until the streetlighting scheme has been implemented in full accordance with the approved details.

Reason: In the interests of highway safety.

Planning Obligations

Community Transport

Specific Purpose: There is a need for a Community Transport service to meet the transport needs of the elderly and disabled. The County Council has specific duties, under the 1985 Transport Act, to take account of the transport needs of elderly and disabled residents and further duties to residents' protected characteristics that include the elderly and disabled, under the Equalities Act 2010. There will be residents with mobility impairments who are unable to access conventional public transport, it is this group that will require access to a door-to-door transport service such as that provided by Community Transport.

Contribution: £4,573.00

Trigger: Prior to first occupation.

Retention period: 10 Years from receipt

566 Bus Service Diversion

Specific Purpose: To divert the existing 566 bus service into the site 4no. times per day so as to ensure the site is adequately served by a bus service and offers a genuine choice of sustainable travel modes to residents.

Contribution: £113,068.80

Trigger: Prior to first occupation.

Retention period: 5 Years from receipt

Demand Responsive Transport

Specific Purpose: To complement the extension of the 566 bus service and ensure a genuine choice of sustainable travel modes is available to residents, particularly during typical commuter periods, the existing Worcestershire Demand Responsive Transport service will be extended to cover the site area.

Contribution: £58,500.00

Trigger: Prior to first occupation.

Retention period: 5 Years from receipt

A4104 Station Road/Worcester Road/High Street Signals MOVA Revalidation and Worcester Road Vehicle Queue Detection Loop

Specific Purpose: To provide necessary mitigation to adequately address the significant and unacceptable impact on vehicle queues at the A4104 Three Springs Road/Worcester Road junction generated by the development, by revalidating the MOVA signal control and

providing an additional vehicle queue detection loop on Worcester Road proximate to the junction with Three Springs Road.

Contribution: £15,000

Trigger: Prior to first occupation.

Retention period: 10 Years from receipt

Farleigh Road Dropped Kerb and Tactile Paving

Specific Purpose: To provide an uncontrolled pedestrian crossing at Farleigh Road to safely facilitate pedestrian movements and active travel on the desire line between the development and Pershore Town Centre.

Contribution: £3,000.00

Trigger: Prior to first occupation.

Retention period: 10 Years from receipt

Pedestrian Wayfinding

Specific Purpose: To assist pedestrian navigation between the development and Pershore Town Centre to ensure the development is served by a genuine choice of sustainable travel modes and maximises opportunities to travel by foot.

Contribution: £5,000

Trigger: Prior to first occupation.

Retention period: 10 Years from receipt

Traffic Regulation Order – Emergency Access

Specific Purpose: To secure the prohibition of general vehicle access at the Emergency Vehicle Access connecting to Mayville Close and Henderson Drive.

Contribution: £4,500

Trigger: Prior to first occupation.

Retention period: 10 Years from receipt

Informatives

Alteration of Highway to Provide New or Amended Vehicle Crossover

This permission does not authorise the Applicant to carry out works within the publicly maintained highway since such works can only be carried out by the County Council's Approved Contractor, Ringway Infrastructure Service who can be contacted by email worcestershirevehicle.crossing@ringway.co.uk. The Applicant is solely responsible for all costs associated with construction of the access.

Section 278 Agreement Details

The granting of this planning permission does not remove any obligations on the applicant to undertake a technical design check of the proposed highway improvement works with the Highway Authority (Worcestershire County Council, WCC), nor does it confirm detailed design approval by the Highway Authority until the design check process has been concluded. Upon the satisfactory completion of the technical check the design would be suitable to allow relevant conditions imposed under this permission to be discharged but works to the public highway cannot take place until a legal agreement under Section 278 of

the Highways Act 1980 has been entered into to allow the works and the applicant has complied with the requirements of the New Roads and Streetworks Act 1991 (NRSWA) and Traffic Management Act 2004. The person or organisation shall follow the necessary procedure by applying to WCC Streetworks Team for road space for a period to be agreed.

WCC normally use Section 278 to allow the developer to employ a contractor and for that contractor to work on the existing public highway in the same way as if WCC were conducting the works.

When any work is undertaken by a party acting on behalf of a developer on the existing adopted highway it will also be necessary to electronically provide notices to WCC (start date, location, workspace area) to allow these works to take place in accordance with NRSWA. Also, details regarding temporary traffic management controls for works in the public highway are to be submitted to WCC for approval using the online application process.

The applicant is urged to engage with WCC as early as possible to ensure that the approval process is started in a timely manner to achieve delivery of the highway works in accordance with the above-mentioned conditions.

The term "highway improvement works" includes, but is not limited to, a proposed junction or access arrangement, highway drainage, street lighting, structures in or adjacent to highway, and any necessary traffic regulation orders or statutory notice.

Section 38 Agreement Details

If it is the Applicant's intention to request the County Council, as Highway Authority, to adopt the proposed roadworks as maintainable at the public expense, then details of the layout and alignment, widths and levels of the proposed roadworks, which shall comply with any plans approved under this planning consent unless otherwise agreed in writing, together with all necessary drainage arrangements and run off calculations shall be submitted to the County Council's Network Control Manager, Worcestershire County Council, County Hall, Spetchley Road, Worcester, WR5 2NP. No works on the site of the development shall be commenced until these details have been approved by the County Council as Highway Authority and an Agreement under Section 38 of the Highways Act, 1980, entered into.

Drainage Details for Section 38

It is not known if the proposed roadworks can be satisfactorily drained to an adequate outfall. Unless adequate storm water disposal arrangements can be provided, the County Council, as Highway Authority, will be unable to adopt the proposed roadworks as public highways.

The Applicant is, therefore, advised to submit the engineering details referred to in this conditional approval to the County Council's County Network Control Manager, Worcestershire County Council, County Hall, Spetchley Road, Worcester, WR5 2NP at an early date to enable surface water disposal arrangements to be assessed.

No Drainage to Discharge to Highway

Drainage arrangements shall be provided to ensure that surface water from the driveway and/or vehicular turning area does not discharge onto the public highway. No drainage or effluent from the proposed development shall be allowed to discharge into any highway drain or over any part of the public highway.

Protection of Visibility Splays

The Applicant's attention is drawn to the need to ensure that the provision of the visibility splay(s) required by this consent is safeguarded in any sale of the application site or part(s) thereof.

Works Adjoining Highway

Any work involving the removal or disturbance of ground or structures supporting or abutting the publicly maintained highway should be carried out in accordance with details to be submitted to and approved in writing by the Highway Authority.

Temporary Direction Signs to Housing Developments

This consent does not authorise the erection of temporary direction signs on the public highway. Should the Applicant wish to direct traffic to the development site they should seek the consent of the Highway Authority. All temporary directional sign proposals should be submitted to the Network Control Manager, Worcestershire County Council, County Hall, Spetchley Road, Worcester, WR5 2NP. No signs should be erected without the consent of the Highway Authority.

Construction Environmental Management Plan (CEMP)

It is expected that contractors are registered with the Considerate Constructors scheme and comply with the code of conduct in full, but particular reference is made to "respecting the community" this says:

Constructors should give utmost consideration to their impact on neighbours and the public

- Informing, respecting and showing courtesy to those affected by the work;
- Minimising the impact of deliveries, parking and work on the public highway;
- Contributing to and supporting the local community and economy; and
- Working to create a positive and enduring impression and promoting the Code.

The CEMP should clearly identify how the principal contractor will engage with the local community; this should be tailored to local circumstances. Contractors should also confirm how they will manage any local concerns and complaints and provide an agreed Service Level Agreement for responding to said issues.

Contractors should ensure that courtesy boards are provided, and information shared with the local community relating to the timing of operations and contact details for a site coordinator in the event of any difficulties.

This does not offer any relief to obligations under existing Legislation.