

Throckmorton Settlement – Movement and Access

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1.	Introduction	3
2.	Movement and Access Key Principles.....	5
3.	Supporting Evidence.....	7
4.	Reducing the Need to Travel.....	11
5.	Active Travel (Walking and Cycling)	13
6.	Pershore Rail Station	21
7.	Bus and Community Transport.....	24
8.	Car Sharing	27
9.	Street and Place Design Principles	28
10.	Freight (HGVs)	30
11.	Highways (General Traffic).....	31

1. Introduction

- 1.1 This document presents the guiding principles of transport planning that will be needed to provide for sustainable movement within and around the Throckmorton Airfield development, as well as between the new settlement and existing infrastructure. As the overall vision of the South Worcestershire authorities and Worcestershire County Council develops for this settlement, this high-level Movement Strategy will provide supporting information and guidance but will also need to develop.
- 1.2 The new settlement at Throckmorton will be centred on Throckmorton Airfield and will deliver 2,000 dwellings and 20 ha of employment by the end of the plan period (2041), after which, the ambition is to deliver a further 3,000 dwellings and 40 ha of employment land. Critical transport infrastructure, such as a new link to the A44 and a 500-space car park at Pershore Railway Station, will have been provided by 2030. Therefore, it is anticipated that development of Throckmorton Airfield will only commence once these essential infrastructure improvements are in operation.
- 1.3 As outlined in the South Worcestershire Development Plan Review (SWDPR), in addition to the significant residential and employment space, the site is proposed to have the following supporting land uses: -
- Local centre comprised of retail, office, medical and community uses, including leisure facilities (expanding to a town centre beyond 2041);
 - Education; secondary school and two primary schools (possibly adding a second secondary school and two-three more primary schools beyond 2041);
 - At least 40% Green Infrastructure and sufficient renewable energy capacity to power the whole development; and
 - A Traveller site for around 10 pitches
- 1.4 Given the location of the development area, being some distance from existing trip attractors and services, there is a considerable risk that car use will be locked in as the mode of choice if suitable alternatives are not provided from the outset. Awaiting Section 106 funds or other later finance will not be sufficient. From a transport perspective, it is critical that this settlement is planned with adequate employment, town centre development, high quality active travel infrastructure, a network of e- charging points, and attractive public transport.
- 1.5 Pershore Station is to be enhanced, with provision of a second platform, an access bridge and new car park. The car park is anticipated to be relocated slightly further east (nearer the Throckmorton site) as the North Cotswold Line improvement scheme comes forward. Given the lack of other key transport nodes within easy reach of the Throckmorton development, Pershore Station must be treated as a key sustainable transport hub if this development is to be truly sustainable. As most of the Throckmorton site is beyond walkable distance to Pershore Station, bus and cycling infrastructure between the development and the station must be the first transport priority and provided from an early stage.

1.6

The following sections will assess, mode by mode, the preferred principles for development. This will include a brief assessment of the current transport provision of the site but focus on opportunities for designing in benefits at the planning stage.

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2. Movement and Access Key Principles

2.1 The following key principles in relation to movement and access apply: -

- Sustainable movement will be prioritised, both within the new settlement, and by attractive, functional connections to nearby trip attractors and urban areas;
- For this site specifically, providing enough employment, leisure and other trip attractors within the development will be crucial. This must be a mostly self-contained development, due to its relative distance from existing infrastructure, towns and employment. Commercial development, town centre-style development and leisure opportunities must be designed within the development site, within walking and cycling distance of all homes;
- There is a high level of internal commuting in South Worcestershire, which the provision of new employment within the new settlement will help serve to retain. However, the need to travel for employment can also be minimised. A recent shift in attitudes towards mobility, particularly in relation to an increased desire to work from home, exacerbated by COVID-19, has encouraged the use of technology to reduce the need to make journeys;
- The planning and design of walking and cycling (active travel) infrastructure shall be prioritised before other modes, with routes provided from the earliest stages of development. Active travel is the preferred method of travel within the settlement and to local trip attractors and high-quality active travel routes are essential. Connectivity to longer distance cycling routes are also to be provided, along with filtered permeability of roads and the use of the public right of way (PROW) network for leisure and accessibility;
- Passenger transport (rail, bus and demand responsive transport) shall be the next modes considered for medium and longer journeys. New scheduled bus/community transport routes, more direct than equivalent vehicle routes, shall be specifically provided, as well as improved service on existing connections. A key focus shall be on Pershore Station, improving rail services (anticipated with North Cotswold Line improvements), accessibility, and bus services to the station;
- Town centre and residential streets will have filtered permeability: direct access for active travel/bus, while private vehicles are not allowed through. Private vehicles should only have access to limited, longer routes for key access;
- Existing and new freight/HGV connections into the area will be a key part of driving the local economy and will be supported by key infrastructure where required. This will also accommodate the increasing need for consolidated 'last mile' delivery within the settlement as part of the continuing growth of the online economy; and

- Private motorised vehicle travel to/from and within the settlement will be given least priority, while recognising this mode will still have a limited role. The design of the settlement will minimise its impacts on the existing highway network by preferentially supporting sustainable modes, while retaining private vehicle access, but it being more indirect.

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3. Supporting Evidence

3.1 This section summarises the policy context and research that has influenced this movement strategy.

National Planning Policy Framework (NPPF) (2019)

3.2 Sustainable development is a core aim on the NPPF. This guidance requires transport issues to be considered at the very beginning of the development and planning process. This means that active travel shall be given priority from the earliest stage. It is advised that opportunities from existing or proposed transport infrastructure are maximised, while, at the same time, promoting public transport use and active travel. It also encourages avoidance and mitigation of adverse environmental impacts of traffic and transport infrastructure, as well as identifying opportunities to make a positive environmental impact.

3.3 NPPF emphasises that significant development shall focus upon sites which are or can be made sustainable, achieved by reducing the need to travel and offering a variety of sustainable transport modes.

3.4 Development sites under consideration shall ensure they provide opportunities to promote sustainable transport modes, safe and suitable access for all users, and any network capacity or safety impacts can be cost effectively mitigated to an adequate degree.

3.5 It requires that sustainable modes of transport shall be promoted in order to mitigate against and avoid the negative effects of transport such as congestion and environmental impact. As a key example, Paragraph 110 a) requires that developments shall:

“give priority **first to pedestrian and cycle movements**, both within the scheme and with neighbouring areas; and **second** – so far as possible – to facilitating access **to high quality public transport**, with layouts that maximise the catchment area for bus or other public transport services, and appropriate facilities that encourage public transport use” [emphasis added]¹.

3.6 Additional key matters that applications shall address include (i) the needs of people with disabilities and reduced mobility; (ii) creating safe, secure and attractive spaces, allowing for efficient delivery of goods and access by service and emergency vehicles; and (iii) providing the ability for charging of plug-in and other ultra-low emission vehicles in safe, accessible and convenient locations.

Department for Transport's Transport Investment Strategy

3.7 A priority of the DfT's Transport Investment Strategy (July 2017) is that investment can positively impact health and environment, for example, by providing cycle-ways and road networks that encourage a shift from car use to more sustainable and healthy modes of travel.

¹ Ministry of Housing, Communities and Local Government, February 2019, National Planning Policy Framework

3.8 It also outlines the ambition to encourage a shift to greener vehicles with lower emissions that improve air quality, supported by grant funding to offset the upfront costs of ultra-low emission vehicle charge points.

Worcestershire's Local Transport Plan (LTP 4) (2018-2030)

3.9 The Worcestershire Local Transport Plan (LTP) sets out the region's three target areas for investment in transport infrastructure: -

- Transport Technology – including developing ultra-low emission vehicle technology, especially for buses and Heavy Goods Vehicles, to tackle poor air quality and reduce noise levels;
- Travel Choice – prioritising investments in alternative modes, including high quality, continuous corridors for active travel modes, and encouraging alternative travel choices for shorter trips; and
- Capacity Enhancement – particularly to support development growth, tackle congestion and improve road safety and air quality.

3.10 The LTP highlights increasing access to high speed broadband as a method to reduce the need to travel and facilitate home (or remote) working, when services can be accessed digitally. Superfast Broadband is included in the range of schemes that will be supported by the region's Local Growth Deal funding.

South Worcestershire Development Plan Review

3.11 The South Worcestershire Development Plan Review (SWDPR) transport policy outlines requirements for transport related infrastructure. It advises that developments shall be designed in a way that minimises the need to travel by car by offering alternative, sustainable travel choices, and enhances highway safety for all users. Travel Plans for major development proposals shall include approaches to managing and limiting single occupancy private car use and encourage active travel and public transport use.

3.12 Following changes to national legislation and planning policy, the South Worcestershire Development Plan Review (SWDPR) is being developed as the adopted document which would be considered potentially out of date when it is older than five years. The current adopted SWDP covers the period up until 2030, however the SWDPR will extend the plan period to 2041.

3.13 Reducing the environmental impacts of travel shall be a priority of development proposals, providing or contributing financially to sustainable transport infrastructure. This includes Electric Vehicle charging infrastructure at domestic, employment and commercial developments.

3.14 The SWDPR emphasises that housing growth must be accompanied by increased investment in local services, employment opportunities and improvements to walking, cycling and public transport infrastructure, services and information services as an effort to offset the economic and environmental costs of increased traffic congestion.

Worcestershire Network Management Plan

3.15 The adopted Worcestershire Network Management Plan requires the use of modal hierarchies to inform the approach to the treatment of route networks, to support safe and expeditious movement on the highway network. This is in part based upon national guidance document Manual for Streets 2, which provides a more detailed, national context for transport in new developments that Worcestershire follows.

3.16 The modal hierarchy in Table 3.1 shows that for both urban and rural areas, excluding all A-roads and freight priority routes, pedestrians and cyclists must be considered first, before public transport. General traffic should only be considered last, or second to last in rural areas. Therefore, development at the Throckmorton settlement shall begin with this as a key aspect of the plans and shall follow the necessary local advice provided in Worcestershire County Council's Streetscape Design Guide document.

3.17 Given the lack of A or B roads within the vicinity of the Throckmorton initial development site, this shows that streets should be designed and managed for the benefit of pedestrians first, followed by cyclists and finally bus modes. General traffic and then freight are the lowest priority according to adopted Worcestershire County Council policy. The importance of freight traffic, particularly HGVs serving the Vale of Evesham agricultural industry, is noted. However, it is anticipated that these vehicles will continue to use existing links such as Throckmorton Road, rather than any new roads within the development.

MAIN ROUTES (Defined as all A-Class Roads and Trunk Roads, certain B-Roads which have been prioritised for freight use, but excludes Motorways)	URBAN AREAS (Defined as all roads and streets which do not fall under the Main Routes category in urban areas)	RURAL AREAS (Defined as all roads and streets which do not fall under the Main Routes category in rural areas)
Commercial Vehicles	Pedestrians	Pedestrians
Passenger Transport and Motorcycles	Cyclists	Cyclists
Drivers with Disabilities	Passenger Transport and Motorcycles	Passenger Transport and Motorcycles
General Traffic	Drivers with Disabilities	Drivers with Disabilities
Pedestrians	Commercial Vehicles	General Traffic
Cyclists	General Traffic	Commercial Vehicles

TABLE 3.1: NETWORK HIERARCHIES FROM WORCESTERSHIRE NETWORK MANAGEMENT PLAN

Transport for New Homes research

3.18 Transport for New Homes² is an independent organisation funded by the registered charity, the Foundation for Integrated Transport. A 2020 report from the group has provided their vision and suggestions to Government appropriate for building a new settlement in previously open countryside (Garden Villages and Garden Towns: Visions and Reality – Transport for New Homes, 2020). This makes clear that even Garden Towns/Villages, which are supposed to be built to modern standards with sustainable transport and containment via jobs and facilities, are in fact failing to provide even basic means to avoid car dominance.

² Transport for New Homes, 2020, <https://www.transportfornewhomes.org.uk/the-project/garden-villages-and-garden-towns/>

- 3.19 In an in-depth study of 20 new settlements, they found most were planned far from town centre facilities and rail stations. They highlight the fact that developments such as these shall not prioritise streets designed for car use or highways capacity improvements, and public transport and active travel shall be considered first when improving the transport network, required by the NPPF and other policy to be considered first.
- 3.20 This is particularly important for a settlement like Throckmorton, built remotely from key facilities such as town centres, shops or existing transport infrastructure. Car dependence shall be avoided, and the development shall be designed to minimise car traffic. Unless homes are built at the same time as local amenities and employment sites, residents would have no local option for shopping, visiting a café or accessing public transport, and would, therefore, be compelled to drive.
- 3.21 National and local adopted policy and guidance clearly supports and drives the transport guidance provided in this document.

4. Reducing the Need to Travel

- 4.1 A truly sustainable settlement shall focus on reducing the need to travel as the bedrock of any access strategy. The ability to access work locally and work from home are essential to ensure a good quality of life, whilst minimising the impacts of new development on the local environment.
- 4.2 Attitudes to travel are changing rapidly and have been accelerated in response to COVID-19. Office workers, particularly those of younger generations, are more likely to want to spend part of their week working from home. The 'COVID-19 Remote Working Survey' of 1,000 UK workers found that 91% would like the option of working from home for at least one day a week³. This poses a potential permanent shift in working patterns that a sustainable settlement shall provide suitable facilities to enable and encourage.
- 4.3 According to 2011 Census Travel to Work Data, an overwhelming majority of commuting trips from existing residents of Throckmorton and the surrounding area are made by car. This is unsurprising in a rural area, where there is a lack of opportunities to use alternative modes. Therefore, to reduce reliance on cars, infrastructure shall be put in place in the new settlement to facilitate active travel and reduce the need to travel. This will not only reduce congestion but enhance public health by improving air quality and encouraging active travel and social cohesion through shared transport modes.
- 4.4 A comprehensive strategy for the provision of Super-fast fibre broadband to all dwellings and public buildings is essential. It will enable virtual mobility (the use of smart phones and the Internet) to support home working and provide access to services and facilities without needing to travel. In South Worcestershire, the percentage of working residents working from home is 19% in Malvern Hills and 15% in Wychavon⁴. Improving access to technology such as high-quality broadband may help to increase rural connectivity without increasing travel demand or worsening congestion.
- 4.5 Provision of Mobility Hubs should be a key consideration to offer local alternatives to home working and support collaborative working. These shall supply lockers, showers and changing facilities for the use of individuals cycling or walking to work. Mobility Hubs could provide local shared working spaces, as well as, for example, facilities to collect personal deliveries, administrate car-pooling, hire bikes, e-bikes, e-scooters and cargo bikes. Mobility Hubs can offer some businesses the option to reduce dedicated floorspace or individual office buildings, thereby helping to reduce overhead costs.
- 4.6 A strategy for catering sustainably for 'last mile' deliveries shall be identified, to ensure deliveries are efficiently provided within the new urban area. This will require buy-in from users, especially businesses, to understand the benefits of such a system, particularly environmental ones that seek to underpin the Throckmorton development.

³ Eskenzi PR, May 2020, Available at: <https://www.eskenzipr.com/2020/05/12/eskenzi-survey-finds-9-out-of-10-respondents-would-prefer-working-from-home-at-least-once-a-week/>

⁴ Worcestershire County Council, Worcestershire's Local Transport Plan (LTP) 2018 - 2030.

4.7 As it is expected that more residents will transition to working from home, provision of multifunctional spaces will be in greater demand. Therefore, residential property design shall provide suitable layouts that offer work-space options and quality broadband and power connections, for example.

4.8 Travel Plans for major development proposals are essential and shall be actively managed and adequately funded. While individual travel plans are required to support planning applications for separate developments, an area-wide travel plan shall be created, which shares measures between multiple developments that sit within the wider Strategic Growth Area to collectively deliver sustainable growth. This could highlight examples of transport measures and developments that could support one another. Businesses can work together to provide measures, such as car-sharing, car clubs, benefit and loyalty schemes and facilities services.

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5. Active Travel (Walking and Cycling)

- 5.1 As required by national and county adopted policy, active travel should be planned and designed for before other modes, with routes provided from the earliest stages of development. These are the preferred methods of travel within the settlement and to local trip attractors, which must include cycle routes to Pershore Station. For destinations further afield, connectivity for longer distance, attractive cycling routes (both existing and new) shall be provided. Access to high quality active travel corridors will create opportunities to increase levels of physical activity, which is important for improving physical and mental health.
- 5.2 Given overlaps in subject matter, this section must be considered alongside chapters on design and health, as well as the other sections of this chapter.
- 5.3 A core network of segregated cycle routes shall be designed, separating cyclists from pedestrians. High quality cycleways shall be of sufficient width to accommodate cyclists of different abilities and speeds; incorporating quality surfacing and lighting, and shall be secure, direct routes that are as barrier-free as possible. As walking shall be prioritised above other modes of travel, the footway network shall also be of high- quality and will include wide footpaths to accommodate greater footfall.
- 5.4 Quality secure cycle parking, as standard, shall be designed in both residential buildings and at destinations. Sufficient space for households of different sizes would be necessary to deliver ease of access and convenient storage (either in the home, within the building or in the vicinity). Cycle parking at destinations will provide secure, sheltered locations for long-term solutions for employees, for example, as well as short-term provision at building entrances giving convenience of access and passive surveillance for visitors. Accessible cycle parking for three-wheel cycles shall be available as well as those that accommodate the length of cargo bikes.
- 5.5 The fast-growing popularity of micromobility (e-bikes and e-scooters and similar) presents the need to adapt footways or cycle paths so that they are suitably wide to accommodate micromobility modes alongside cycles. Whilst the use of e-scooters is presently not permitted on public highways, this is under review and legislation is likely to be changed. It is sensible, therefore, to design future developments to include micromobility travel. (Note – in July 2020, the UK Government commenced trials of hire e-scooters, to test their viability. Use is restricted to road carriageways and cycle lanes and are illegal on footways/footpaths. Use of private e-scooters currently remains illegal).
- 5.6 The design of active travel infrastructure for the new settlement and its connections to the wider local area shall follow the same key principles. This infrastructure includes the routes themselves, but also cycle storage and cycle hire opportunities.

Key Principles:

- Active travel links must be **planned, designed and installed first**, so that private vehicle travel is not cemented in as the normal mode.
- Neighbourhoods shall be built to be **walkable**, with most properties within 800m of a neighbourhood centre (retail, play areas and other community

facilities). Public realm must be attractive to those on foot/cycle, with permeability (as discussed elsewhere).

- Active travel links must be **direct** and along desire lines. This means they shall be the most obvious, shortest route from residential areas to trip attractors, and between trip attractors. This is particularly important between key sites such as Pershore Station, schools, the town/local centre and areas of employment. This also means that private vehicle routes shall be more circuitous and less attractive for trips of distances which are within the reach of most cyclists. Although likely to be a distance too long for walking, the key piece of infrastructure required is a **direct active travel corridor** from the main Throckmorton site to **Pershore Station** (see below).
- The network shall be **joined up**, with no routes that terminate on busy roads, and provide a viable network such that walkers and cyclists have minimal crossings with busy roads. The network must also join all sections of the development, not favouring some areas.
- **Uninterrupted** routes are crucial – there shall be no gates or other obstacles that make cycling or walking unattractive, particularly for those with mobility issues or children in buggies.
- The active travel routes must be **highly visible** and **feel safe**. Development must face the walking and cycling links, providing a feeling of security by locating the links near frontages that feel busy and overseen. Routes shall be well signed and easily followed by even novice cyclists.
- Facilities must also be **comfortable** to use, with easy access to **cycle storage** and hire schemes. Hire schemes may only be required near the largest trip attractors, so shall be considered first at town centre and station locations.
- The network should link employment to residential and commercial zones, as well as to schools and other community buildings. Places of work shall provide lockers, showers and changing facilities for the use of individuals cycling or walking to work.
- Routes shall be **integrated into greenways, natural areas and SUDS schemes** (drainage) where possible. This will make them more attractive to users and go some way towards multi-use planning.
- Where road and cycling/walking routes must cross each other, consideration should be given to safe, user friendly crossings for all modes. Within the town/local centre, there should be frequent formal and informal crossing points for pedestrians, and pedestrianised areas should be the norm.
- Outside the centre, the default shall not be at-grade crossings with vehicle priority, as is often the norm in historic urban areas. First, consideration should be given to following the mantra 'bikes under, roads over' (see Figure 5.1). This will be more viable when building new roads, particularly as construction often

leads to excavation/accumulation of material which can be used to form natural gradients. This can save on construction costs, makes gradients more achievable for all modes, and reduces the headroom needed above a road when building an active travel route across a bridge.



FIGURE 5.1 : A BEST PRACTICE EXAMPLE OF QUALITY TRANSPORT MODAL SEPARATION

Indicative Active Travel Network

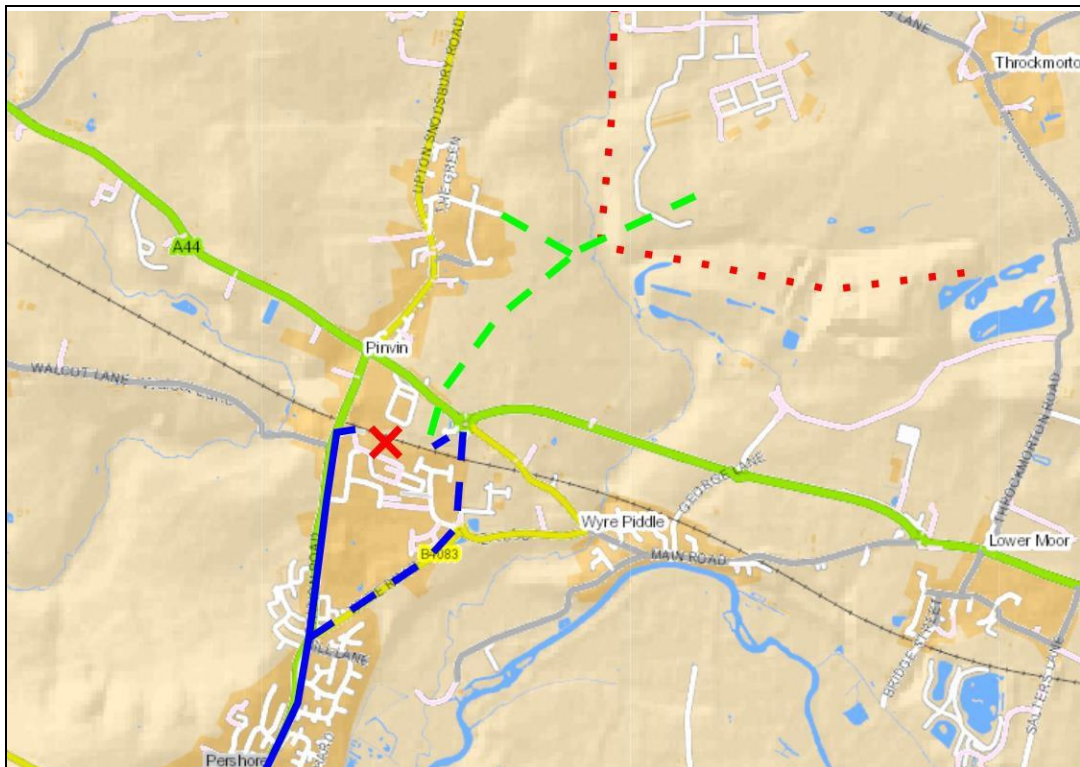
- 5.7 A network of 'greenway' active travel routes shall be implemented within the development, which would complement the rural nature of the surroundings and provide significant leisure and local commuting opportunities that are particularly attractive to modern homebuyers. It is suggested that the existing Airfield runways be repurposed as substantial green highways.
- 5.8 Figure 5.2 shows the location of the new indicative centre of the proposed new Throckmorton settlement growth area. The plan shows the extents of reasonable short-distance walking and cycling catchment areas from the centre of the development area, providing an indicative boundary for both the enhanced active travel networks that shall be implemented with the new settlement. The indicative location of vehicular access to the site is also shown in the south of the growth area.



FIGURE 5.2: STRATEGIC GROWTH AREA - THROCKMORTON AIRFIELD NEW SETTLEMENT

National Cycle Network connectivity

- 5.9 The nearest access to the National Cycle Network (NCN) of long distance, low traffic or off-carriageway routes, is on the A4104 on the southern side of Persnore Station. This is a spur from NCN route 442 and is an indirect route between Worcester and South Evesham. A segregated cycle route has been provided roughly halfway into Persnore from the station as part of a recent housing development. This is, however, quite inaccessible from the Throckmorton site, with barriers including the railway itself, the busy A44 and several commercial units.
- 5.10 Shown in Figure 5.3 , an offline footway and cycleway is being developed between the Wyre Road roundabout and the junction with Station Road, where an existing link of NCN route 442 continues north to the station. The new active travel link is part of the Persnore Infrastructure Improvement scheme, the next phase of which is due to begin in January 2021. This could then connect at Persnore Station forecourt with the planned bus interchange, the station car park, once it has been relocated, as well as the active travel routes into Throckmorton (discussed below).
- 5.11 The Pinvin junction realignment, also delivered as part of the Persnore Infrastructure Scheme, includes online and offline active travel facilities to assist cyclists and pedestrians to cross the A44.



Legend	
Red Cross	Pershore Station
Blue Solid Line	NCN442
Blue Dashed Line	Potential NCN spur to new station location/connection to Throckmorton cycle route. (Utilising Keytech Bridge)
Green Dashed Line	Suggested route of Pershore Station – Throckmorton cycle route, with local connection for Pinvin village residents to access Throckmorton facilities.
Red Dotted Line	South-West boundary of settlement site.

FIGURE 5.3: PERSHORE TO THROCKMORTON CYCLE ROUTE

Key Connectivity Challenges

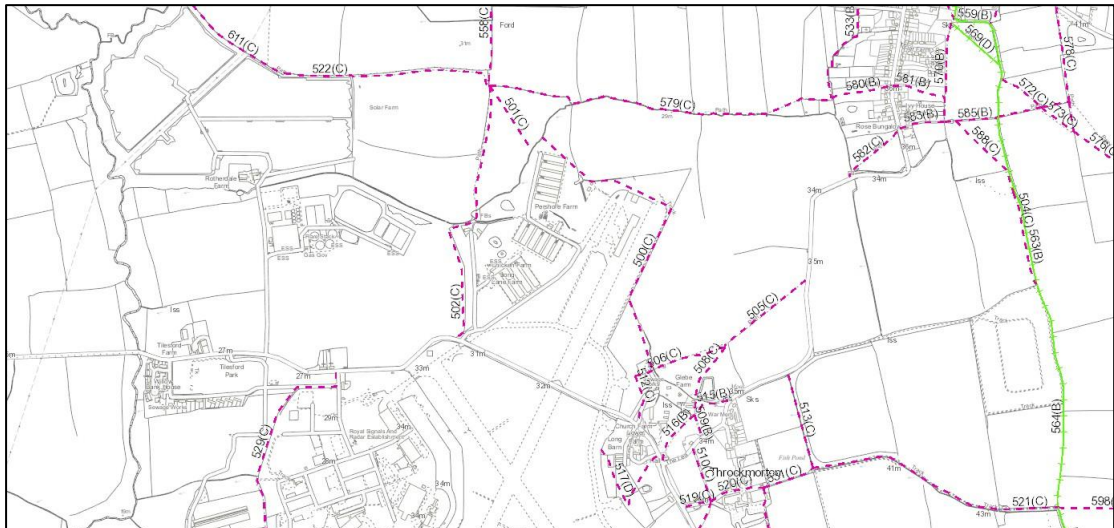
- 5.12 The Movement Analysis initial planning document shows several ‘Potential Vital Connections over Severance’, which will need to be considered in turn. This will be more feasible as the vision for the development grows, therefore this assessment should be considered as only an initial selection of key connectivity locations.
- 5.13 Given the distance of the site from existing towns or facilities, a large proportion of the movement assessment will need to be undertaken once it is clear what facilities will be provided from the outset at the development. These facilities will need to be extensive from opening, including retail and employment sites, as well as public transport and active travel infrastructure. This will provide for suitable transport, encourage sustainable travel early, and prevent reliance on car use.
- 5.14 There are several sites on the southern boundary of the site that border onto the gradient into the existing household recycling facility. It is unclear whether these connectivity sites will be viable in the short term as the recycling facility continues to operate. However, the west and south eastern opportunities for connectivity can be used to eventually provide active travel to the south.

South-Eastern Connectivity – Towards Lower Moor/Fladbury

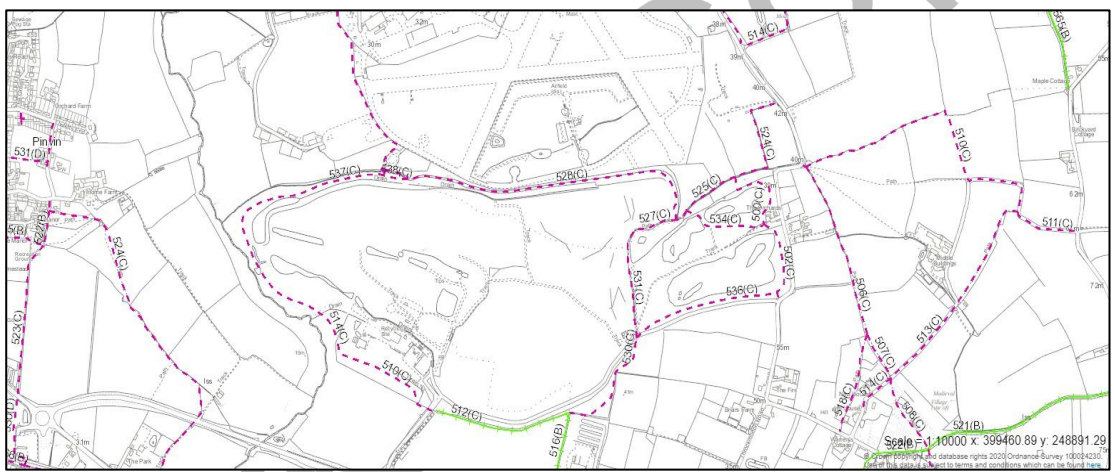
- 5.15 This could be a high-quality active travel route from the new settlement, running south then south-east, via Lower Moor and into Fladbury. This would be likely to be generally a leisure route, given the leisure nature of trip attractors in the villages (pubs, a golf course, countryside), so it could be designed as a greenway and kept as separate from trafficked carriageways as possible.
- 5.16 This would involve a crossing of the A44 to the west of Throckmorton Road into Lower Moor, which should be designed to the principles listed earlier. While Throckmorton Road is currently listed as a cycling friendly road, once developed as the main development access it is unlikely to remain so, unless designed with a segregated active travel link. This should be on the western side of Throckmorton Road in order to minimise road crossings and to facilitate the active travel route into the development to branch off the road. This will ensure the active travel route is more direct than the road route, which continues north.

Public Rights of Way

- 5.17 The network of Public Rights of Way (PROW) within the development area, as shown in Figure 5.4 and Figure 5.5, is not extensive, with only a few to the north and north-eastern portions near Throckmorton village itself. The settlement area is, however, surrounded by a dense network of PROWs, including ones that form part of the eastern and southern boundaries of the site.



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FIGURE 5.4: PUBLIC RIGHTS OF WAY NETWORK IN THE DEVELOPMENT AREA (NORTH)⁵



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FIGURE 5.5: PUBLIC RIGHTS OF WAY NETWORK IN THE DEVELOPMENT AREA (SOUTH)

- 5.18 Improving the existing PROWs within the development boundary, to upgrade them to active travel routes, shall be considered, alongside consideration for linking to the surrounding PROW network. There are a lack of PROWs extending westwards from the site: although this is assumed to be mostly due to the watercourses there, opportunities for improvement here shall be investigated, together with the assessment of active travel links into Pinvin.
- 5.19 However, to become active travel routes, legal status changes are also needed. For this reason and others, including rural PROWs often being non-direct and used by agriculture, it is likely to be more viable to include new active travel routes elsewhere, while keeping the PROW network as a key leisure asset.

⁵ Worcestershire County Council, 2020, 'Public Rights of Way'. Available at: <https://gis.worcestershire.gov.uk/website/Countryside/>

Local Centres

- 5.20 The local centres shall have wide footways and high-quality attractive public realm areas, including at the entrance to buildings. Design shall be inclusive, incorporating minimal gradients, removing barriers and providing seating and/or resting points.
- 5.21 The settlement's new town centre shall be directly accessible by active travel modes and by public transport to Pershore's various amenities, including the rail station, facilitated by the proposed single loop road surrounding the local centre. Suitable locations for the 500-space car park at the station are currently being explored. Measures shall be taken to discourage visitors and residents to drive between Pershore station and their destination within the settlement. This is a crucial factor in reducing traffic congestion, addressing air quality issues and in making the new settlement attractive to work, visit and live in a sustainable manner.
- 5.22 Specific measures shall be considered to discourage driving in the following ways: -
- Within the town centre;
 - From local neighbourhoods to the town centre; and
 - From local neighbourhoods to Pershore Station.
- 5.23 Detailed plans for these will be decided upon at a later stage but will tie in with the permeability and other methods noted as important in this chapter.

6. Pershore Rail Station

6.1 As mentioned earlier, access to Pershore Station is considered to be crucial for the viability of the new settlement. Worcestershire County Council, via the North Cotswold Line Task Force, is working on the business case for reinstating dual track sections of the railway line between Worcester and Oxford. This will facilitate improved services and allow for a faster journey time average of two hours from Worcester to London Paddington direct. In order to achieve this, and to allow improved accessibility and parking, it is anticipated that the Pershore section of track will be dualled.

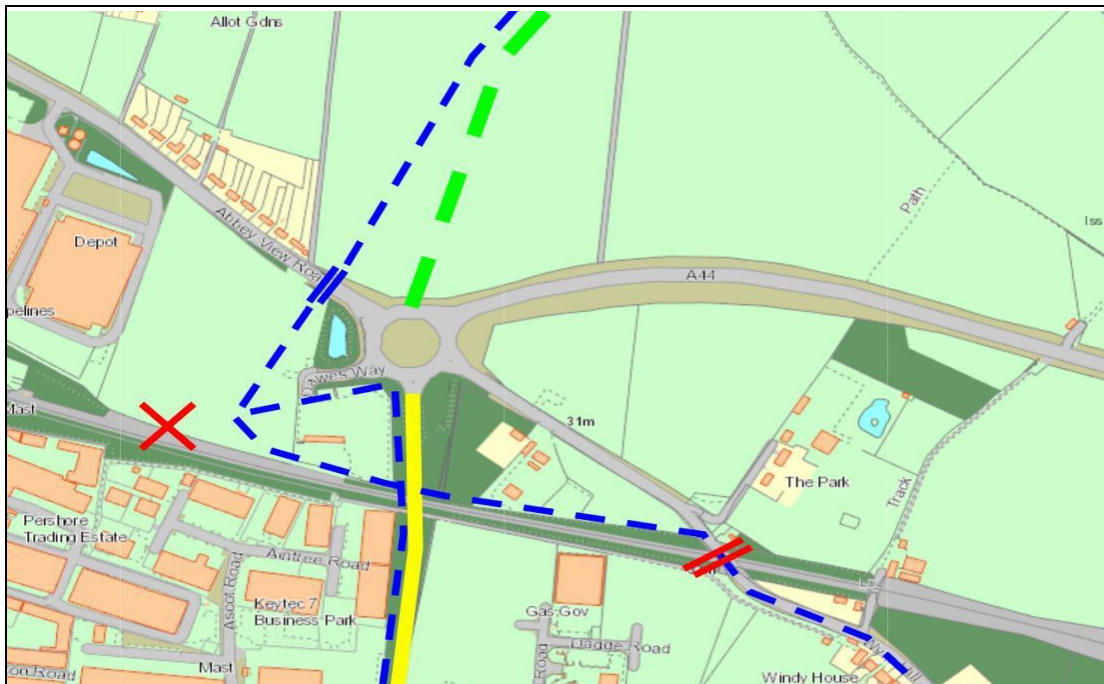
6.2 This process will produce a scheme that can be completed on a similar timeline to the Throckmorton development coming forward. With reference to the Department for Transport's (DfT) Rail Network Enhancement Pipeline, development of the North Cotswold Line is anticipated to commence in 2020/2021 and is currently programmed to be delivered in 2025.

6.3 Situated on the Cotswold Line, Pershore Station provides one direct train per hour to London Paddington via Oxford and Reading, and one direct train per hour to Hereford via Worcester Foregate Street. These services would provide suitable access for commuters from the Throckmorton settlement. The weekday departure times are shown in Table 6.1.

Journey	Departure Times
Pershore to London Paddington	Hourly (05:25 – 21:44)
London Paddington to Pershore	Hourly (05:50 – 21:50)
Pershore to Hereford (via Worcester)	06:01, Then hourly (07:58 – 21:44)
Hereford to Pershore (via Worcester)	05:23, 06:43, 07:09, then hourly (07:32 – 19:50)

TABLE 6.1: PERSHORE STATION DEPARTURE TIMES

6.4 A new link road scheme has recently been constructed running south from the Keytech roundabout on the A44, across the railway connecting to the roundabout on Wyre Road. The combination of schemes anticipated provide valuable opportunities for linking bus, active travel modes from Pershore and the Throckmorton settlement to the rail station, as shown in Figure 6.1.



Legend	
Yellow Line	New link road to Wyre Road roundabout
Blue Dashed Line	Indicative active travel network (including overbridge on A44, and underbridge at new link road).
Red Cross	Presumed new location of station.
Green Dashed Line	New link road to Throckmorton.
Red Bars	Option for active travel only permeability to Wyre Piddle.

FIGURE 6.1: WALKING, CYCLING AND BUS ACCESS TO RELOCATED PERSHORE STATION

Cycling and Walking Access to Pershore Station

- 6.5 Cycling and walking access into Pershore Station from the Throckmorton site, avoiding conflict with vehicle traffic on the A44, shall be the priority. This is likely to be best achieved by a bridge over the A44, to the west of the roundabout outside the new station entrance. This keeps the active travel modes separate from the proposed new link road to the north and makes it as direct as possible. The cycling route should be fully segregated from the bus route, direct and continuous, in light of LTN 1/20 Cycle Infrastructure Design.
- 6.6 The active travel route can then be linked to the Keytech bridge to provide onward travel towards Pershore town centre and its services, with a spur route travelling east from the station, underneath the new road bridge across the railway if there is clearance, into Wyre Piddle village via the closed road.
- 6.7 The station shall be provided with cycle storage designed to modern standards, accessible easily, in a highly visible location (not 'around the back'), with potential to add a cycle hire hub.

Passenger Transport Access

- 6.8 Further detailed assessment is required to clarify the realistic potential to serve the new settlement with scheduled passenger transport services. The demand for additional bus services connecting the settlement and Pershore station needs to be specifically considered. Comprehensive evaluation is needed to quantify and understand the viability of any new service provided by local bus operators.
- 6.9 Bus access to the station would be direct from the settlement via the new link road, the A44/ B4083 roundabout and into the presumed station forecourt. Dedicated bus stops should be planned with shelter facilities and real time journey updates. This newly located station forecourt would also provide more attractive facilities for bus users on existing routes to access the station.
- 6.10 The bus access shall not come into direct conflict with the active travel access from the Throckmorton site. This is likely to be possible only by a walking and cycling bridge over the A44 as shown in FIGURE 6.1.

7. Bus and Community Transport

Bus

- 7.1 Current bus services near the development site are very limited. Throckmorton village is served twice daily by the 564 service, a circular service taking in Pershore, Inkberrow and Evesham, plus villages in between. The 565 service also serves the village on average twice daily. In total, this provides one daytime opportunity to visit Pershore or Evesham for a few hours, suitable for leisure and service use though not for commuting.
- 7.2 There is also a Mondays-only bus between Pershore and Redditch, the R2, that provides one trip per day in each direction via Throckmorton. This allows village residents to travel to Redditch for a few hours.
- 7.3 The nearest buses on a regular schedule are some distance from the development, across the A44 in Wyre Piddle and Lower Moor. Shown in Figure 7.1, the 51 and 53 services operated by First runs from Worcester bus station to Evesham via Pershore station. The 54 also connects Pershore town centre to Worcester City Centre via neighbouring villages. However, these are school services only.

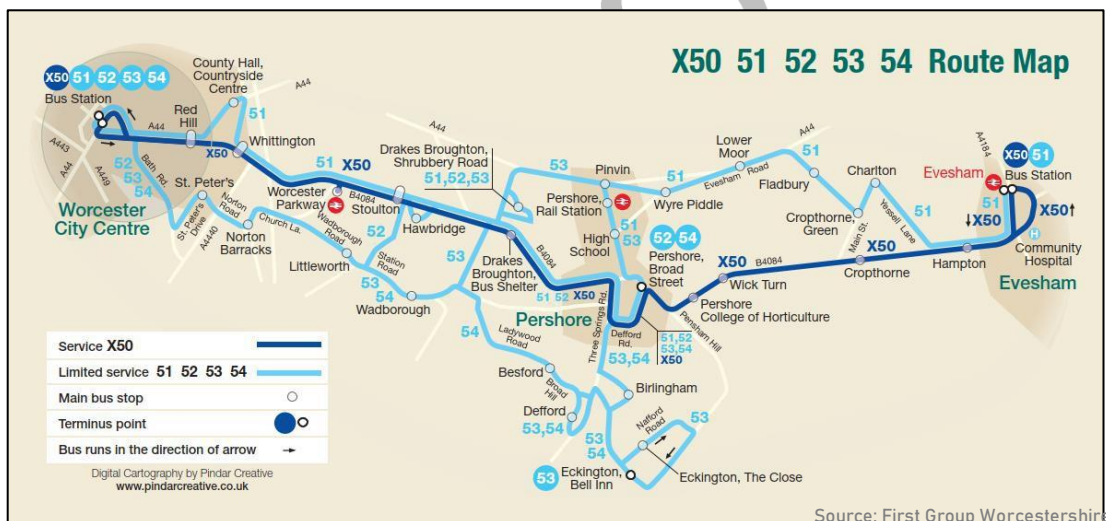


FIGURE 7.1: SOUTH EAST WORCESTERSHIRE BUS ROUTES

- 7.4 Also operated by First, the X50 service links Pershore town centre to Evesham and Worcester City Centre via the B4084 and Worcestershire Parkway Station. The timetable is summarised in Table 7.1.

Monday – Saturday	Hourly (06:10 – 18:10)
Sunday	Hourly (10:10 – 17:10) – Worcester to Pershore only

TABLE 7.1: X50 BUS SERVICE OPERATION

Suggested Options for Improved Services

- 7.5 Given the continued decline of the commercial bus network in South Worcestershire, and how far from existing bus routes the settlement will be, it is probably not possible to rely on redirection of existing routes. Hence, new bus routes will be needed from the outset of this development if this is to be a sustainable settlement. It is recommended

that planners work with supporting bus operators to determine the most suitable strategy to serve the settlement as soon as firm designs are created.

- 7.6 An assessment of potential passenger demand and suitable routes should be undertaken before considering options for a viable new service from the Throckmorton settlement to Pershore Station and beyond. Options also include (i) a potential circular loop service, (ii) a new passenger transport connection to Pershore town centre or to Worcester City Centre via Worcestershire Parkway (station and new settlement), and possible 'hail and ride' services. These opportunities for tying sustainable travel modes together shall be investigated as a priority.
- 7.7 It is strongly recommended that bus stops are provided within 200-300m walking distance of residential areas to encourage bus use, and stops shall be provided with shelters where possible, in highly visible, safe feeling locations. If bus stops are highly visible from a distance, they can be provided within a maximum 400m walking distance of residential areas, as a permitted exception to the 200-300m range.
- 7.8 There are a handful of infrequent services which run through villages south of the Throckmorton settlement such as Pinvin and Wyre Piddle (services 53 and 51). These could potentially be attractive to Throckmorton residents wanting to access Worcester City Centre or surrounding villages, providing a case to introduce more frequent services and integration with new routes.

Community Transport

- 7.9 Community transport provides a key 'in-between' service that complements scheduled bus services and individual travel. This is particularly useful for those individuals with mobility issues and can also provide equalities benefits by allowing those with less disposable income to access travel opportunities. However, it should not be seen as an alternative to well-planned scheduled bus services that shall be implemented in the early stages of operation, which is the priority for passenger transport for the new settlement.
- 7.10 Pershore Volunteer Centre operate a community transport service within Pershore and the surrounding area. The new settlement will be situated in the north-eastern zone, centred on Throckmorton, as illustrated in Figure 7.2.



FIGURE 7.2: PERSHORE COMMUNITY TRANSPORT ZONES⁶

7.11 Pershore Community Transport aims to reduce social isolation by offering the following services:

- Social Car Scheme – volunteers drive their own cars, taking clients on pre- booked journeys.
- Minibus journeys – minibuses adapted for wheelchair users are used to take clients for shopping trips or other social activities, and for community group hire.

⁶ Volunteer Centre Pershore, Available at: www.pershorevolunteers.org.uk/our-area

8. Car Sharing

- 8.1 Car sharing is an increasingly common form of shared travel⁷ (including public transport). It is particularly effective in large-scale employment facilities and provides local travel delivered by demand responsive networks. Although car sharing is an example of private car use, it does help to reduce the number of individual trips.
- 8.2 Growth is being seen in app-based 'buying of rides'; calling for the provision of quality IT infrastructure, as well as large-scale vehicle sharing car club schemes. This demand-responsive service, such as Liftshare or GoCarShare, enables the user to book through an online service whenever they need to travel, connecting car-owners with empty seats with individuals looking for drivers to share with. Car hire services, such as Zicpar, are also growing in popularity .
- 8.3 As well as the commercial schemes above, car sharing is also often an informal arrangement between neighbours or work colleagues, for example. Both car-pooling (private car sharing) and car sharing (where the car is not owned by the individual) networks can be administered from Mobility Hubs.
- 8.4 Car sharing or car clubs offer the service of effectively hiring a car for a short period of time, thereby allowing a person to consider not owning their own vehicle. This can be a cost-effective way to still have access to a car for some trips. The scheme is more attractive when vehicles are located throughout a development, allowing a person to book a vehicle that is local to them. Parking spaces for car sharing/club vehicles can be designed from an early stage and given priority over general car parking.
- 8.5 Car sharing networks also lend themselves to encouraging the use of electric vehicles, or autonomous vehicles, therefore e-charging points will be necessary in both public and residential spaces.

⁷ Autocar, September 2019, <https://www.autocar.co.uk/car-news/industry/analysis-will-car-sharing-replace-vehicle-ownership> and Future Mind, April 2020, <https://www.futuremind.com/blog/car-sharing-and-transportation-trends>

9. Street and Place Design Principles

- 9.1 There are several key principles that must be considered for transport within the settlement. Streets and active travel links should be designed to the principle that active travel links are direct, attractive, well-lit, overlooked by active frontages and feel safe. Corresponding private vehicle routes should be less direct and designed to be separate to the active travel links, connecting with the 'backs' of properties and businesses. This will create an attractive sense of place for people to access the front of buildings, spending more time, travelling in better comfort away from traffic, and spending more money in the town centre.
- 9.2 Where primary cycling routes are required to share highway space with vehicle routes, these should always be segregated/separated, unless there is a clear and specific reason why this may not be desirable.
- 9.3 Where permeability is required (access from one part of the development to another – e.g. from a residential sector to an employment sector), active travel modes should be prioritised. This might look like roads that are culs-de-sac for motor vehicles but open for walking and cycling.
- 9.4 The layout of housing developments can potentially affect how residents travel. Plot design that locates car parking away from dwellings could discourage the use of the private car, provide a filtered grid of non-car residential streets, and help limit the vehicle impact of the New Town on the surrounding road network. Such a plot design should be encouraged wherever possible.
- 9.5 Streets that are primarily residential should be laid out to discourage through traffic.
- Vehicle routes within the settlement that are not through roads should be designed for vehicle speeds of 20mph or less. If any traffic calming measures are proposed, they must not be detrimental to cyclists or buses/community transport vehicles.
- 9.6 A specific principle that will be key for the Throckmorton site is that primary vehicular access should be via **one** route only – a proposed new link road south from the settlement to the A44/B4083 roundabout. The new road will significantly help to manage traffic on the existing network, and will facilitate and promote sustainable modes as required.
- 9.7 Given the rural nature of the development site and the surroundings once built, there are opportunities for integrating this settlement well into nature, by careful design of parkland and SUDS drainage schemes. While this will mostly be discussed in the relevant document, active travel leisure routes could, for example, be integrated into drainage schemes, or use attractive routes near attenuation basins to create wildlife habitats.

Town Centre

- 9.8 The Development Plan for Throckmorton proposes a local centre comprising of retail, office space, leisure, medical and community facilities that would serve the whole development. It is anticipated to be expanded to become a town centre beyond 2041.
- 9.9 There are currently few details available for the location and function of the town centre, therefore this section will be revised as the vision develops.

- 9.10 Careful consideration must be given to the location of the town centre – this development location provides challenges for travellers wishing to use sustainable modes for longer distance travel. Depending on the location of housing and the town centre, someone wishing to access Worcester, for example, may have to undertake a journey with a walking or cycling leg to a bus interchange, a bus trip to Pershore Station, then a train journey to Worcester. With waiting times at each change of mode, private vehicle travel will become much more attractive. Therefore, design must be considerably in favour of sustainable modes.
- 9.11 The town centre must be walkable and permeable for active travel modes, while at the same time providing access for passenger transport and deliveries. Private vehicle access to the town centre should be less direct, less attractive, and accommodated last, once the previous modes have been considered, in order to minimise the points of conflict. This will avoid car dominance.
- 9.12 From a transport perspective, to make the Throckmorton site sustainable, in terms of encouraging most internal trips to be undertaken by active travel, the town centre should be located in the centre, with surrounding development directly connected by high quality walking and cycling corridors. The town centre and housing must be well connected to Pershore Station, in order to facilitate access via cycling and even walking. This will be a crucial factor in reducing traffic congestion, air quality issues and in making the new settlement attractive to work, visit and live.
- 9.13 This can also be done with a reliable, useful bus service from Pershore Station to the new town centre, which will be especially important if the town centre is several miles away from the station. Planning this in from the very beginning would be of great benefit. Given the size of the growth area, this should be tied in with cycle storage, allowing residents to access the bus and the town centre without needing to use a car.
- 9.14 However, with an understanding that bus services will be difficult to make commercially viable, and the continued decline of the network in South Worcestershire, the existence of a functionally useful bus service may not be guaranteed. Therefore, a sustainable design should consider the town centre location carefully. A truly contained town centre with suitable employment for the settlement's residents will also address some of the issues regarding transport in the site, but some residents will still choose to travel out for employment and other services.

10. Freight (HGVs)

- 10.1 Commercial industry is key to the area's economy. Located close to the Vale of Evesham, it is an important location for the distribution of agricultural produce. Heavy Goods Vehicles (HGVs) frequently pass through the area, therefore any improvements made to highway infrastructure should take this into consideration. This will be done while recognising the hierarchy of streets noted earlier, which noted that HGVs and commercial vehicles shall be considered after the needs of walking, cycling and passenger transport modes.
- 10.2 It is important that new travel infrastructure takes account of the needs of HGVs, both at existing premises and potential new commercial development within the settlement, to maintain economic attractiveness for businesses. Commercial development within the growth area that could potentially increase freight traffic should be sited carefully to avoid conflict with other modes, particularly the network of active travel routes and PROWs.
- 10.3 Within the new Throckmorton settlement, facilities for consolidating 'last mile' deliveries onto sustainable, clean modes in the area must be strongly supported. This is required for the settlement to properly attempt to meet its climate change and air quality targets. A consolidation centre located on the edge of the development site but close to the external road network for arriving deliveries shall be considered. 'Last mile' deliveries have the potential to then be undertaken in a co-ordinated manner that reduces the number of individual vehicles that would otherwise service the development. Delivery vehicles could be a range of options, depending on scale of goods being delivered. This includes the use of electric vehicles, cargo cycles and, potentially, drones as a 21st century option. In addition, the centre should offer a 24/7 collection/drop-off service. Consolidation centres are successful when there is buy-in from businesses and other services/users. There are 'green' benefits in using such a facility that will enhance a company's corporate social responsibility obligations as long as there are no financial disbenefits.

11. Highways (General Traffic)

- 11.1 Included in the adopted SWDP (February 2016), highways improvements are under way at Pinvin (A44 junction capacity improvements) and east of Pershore Station (link road between the A44 and Wyre Road and 800m stretch of highway upgrade at Wyre Road). Although these improvements will help to minimise the impacts of the Throckmorton development on the existing strategic road network, they were not developed for this reason and will not entirely accommodate increased traffic from the new settlement.
- 11.2 The settlement at Throckmorton must be designed so that private vehicle access is the least direct, while still providing all the connectivity for those who need to drive. It is assumed that, for this reason and others, such as not overloading junctions/quieter roads such as at Pinvin, **the primary access into the development should be from the new link road connecting the settlement to the A44/ B4083 roundabout**. This provides the most logical access onto the Major Road Network of important local roads, the A44.
- 11.3 The new link road shall prove capable of handling the traffic created by the settlement, which shall be confirmed by modelling. The route shall be designed to an appropriate width to accommodate active travel and public transport modes, as well as car traffic.
- 11.4 The addition to the new link road from the Throckmorton settlement to the A44/ B4083 roundabout, and the new access to the south for all traffic, the roundabout may experience congestion due to excess demand. If modelling shows this to be the case, closing the B4083 linking the roundabout to Wyre Piddle to through car traffic could be considered, as the new bridge would create an alternative vehicle route that is not much longer. The B4083 to Wyre Piddle could then be repurposed as the active travel route from the village (and beyond) to Pershore Station and the new bus and active travel links to the Throckmorton settlement.
- 11.5 The route from the development site via Long Lane onto the B4082 towards Pinvin in the south and Upton Snodsbury further north should not be developed as a primary vehicular route. Pinvin already suffers from regular traffic congestion and prioritising this route for vehicles from the new development would essentially provide a 'rat run' opportunity via the B4082 for drivers to travel north or south towards Worcester and the M5. This would severely harm attempts at creating containment and sustainable transport for the new settlement.
- 11.6 The closure of Long Lane to through traffic from the new development and Throckmorton Road should be considered in order to keep the rural character of the area and provide leisure active travel routes for new and existing residents of the area.
- 11.7 In general, the new settlement shall be designed with minimal vehicular accesses – ideally, one main junction onto the new link road to the south of the development.
- 11.8 As detailed in the design section, other links from the housing areas of the new development onto the existing road network should show filtered permeability, being cul-de-sacs for vehicles while allowing active travel access. Existing local unclassified roads may be considered for changes to traffic management in order to protect them from 'rat-running' or higher traffic levels.

11.9 Given the scale of the development proposals, assessments will need to be undertaken to establish the scale of development traffic impact on the Highways England Network, particularly both M5 Junctions 6 and 7, which provide access between the site and Worcester and the North. The efficient operation of these junctions will extend to that of other nearby junctions. There may be a requirement to mitigate any detrimental impact or contribute towards larger improvement schemes.

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