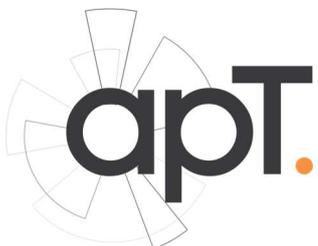




Residential Development at Land North of London Road, Shrewsbury

Transport Assessment



Notice

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Contents

1 - Introduction

2 – Policy Context

3 – The Development

4 – Sustainability

5- Accident Data

6 – Highways Impact

7 – Summary and Conclusions

1 Introduction

ApT have been commissioned by Cornovii to produce a Transport Assessment (TA) in reference to a residential development to the rear of existing properties on London Road, Shrewsbury utilising the spine road for the current Weir Hill development, as access to the site. The application relates to a site which is currently unused and is located on the edge of the urban area.

1.1 Site Information

The site is identified in Shropshire Council's Site Allocations and Management of Development (SAMDev) Plan as allocated housing land, Land north of London Road (SHREW001) for the provision of 50 dwellings. Overall, SAMDev supports the delivery of the planned 6,500 new homes for Shrewsbury and 27,500 homes for Shropshire to 2026.

The potential development site is located on undeveloped land and covers an area of circa. 7.5 ha. The proposed site will hold 142 mixed build dwellings. The access to the site will be from the Weir Hill spine road which has been developed as part of the Taylor Wimpey and Persimmon development to the north of the site. However, a small number of properties will be served by accesses directly to/from London Road. These access will not allow traffic to go beyond these dwellings into the rest of the site. The spine road joins London Road which connects Shrewsbury town centre to the A5 and onward destinations. From London Road, the A5 runs around the town heading to North Wales to the north-west and the M54 in an easterly direction.

This TA is to inform Highway Officers at Shropshire Council (SC) with regard to the impact upon the highway associated with this development.

1.2 Scope of the Report

In preparation of this TA, SC have been contacted in order to agree the scope of the Transport Assessment.

The TA will include information relating to:

- A description of the existing highway network around the site
- A summary of the development proposal for the site
- Details surrounding the access to the site
- Impact on the adjacent highway network
- A review and consideration of the relevant local and national transport planning policies
- A review of accessibility of local amenities and travel by sustainable modes of travel

1.3 Purpose of this Report

The purpose of this Transport Assessment is to evaluate a range of highway factors which will have a bearing on the development and the surrounding highway network.

1.4 Structure of the Report

Following on from this introduction, Section 2 of the report will summarise the relevant transport planning policy at a national and local level and assess how the development proposals relate to this.

Section 3 of the report will provide a detailed analysis of the highway network surrounding the site and the opportunities that are in place to promote sustainable methods of travel

Section 4 will demonstrate and analyse the methods of sustainable travel within the vicinity of the development

Section 5 reviews the relevant accident data that is relevant to the site and the locale

Section 6 will provide oversight on vehicular impact as a result of the proposal

Section 7 will summarise the report and provide a conclusion based on the information that has been gathered.

2 Policy Context

2.1 Introduction

The relevant national and local planning policy has been assessed in relation to the development proposals to ensure that they strategically fit within the wider planning policy context. Firstly, national planning policy has been assessed to provide an overview on the national planning ambitions. Secondly, local planning policy has been reviewed to ensure that the development proposals are to have a positive impact upon the local community.

2.2 National Planning Policy

2.2.1 - National Planning Policy Framework

The revised National Planning Policy Framework (NPPF) was published in June 2019. The NPPF's main mission statement is to encourage sustainable development whilst also encouraging economic growth. Furthermore, there is a call for innovation in new building and community design to achieve these goals. Guidance is also provided on how future growth can exist in harmony with the UK's historic landscape and buildings.

The NPPF relays a number of transport related objectives that must be considered to safeguard that developments are sustainable and contribute to economic growth whilst protecting the environment.

Chapter 9 of the NPPF underlines the guidelines for promoting sustainable transport. The chapter makes reference that transport assessments and travel plans should be as a method of determining the impact of new developments that generate significant amounts of movement. Transport Assessments should demonstrate the following:

- The opportunity for sustainable transport modes has been taken up to reduce the need for major transport infrastructure
- The TA should show there is safe and suitable access to the site for all people
- Improvements can be undertaken with the transport network that are cost effective and limits the significant impacts of the development
- Development should only be prevented or refused on highways or transport grounds where the residual cumulative impact of the development are severe and impact on the safety of the highway network

Additionally, the NPPF recommends that developments which are likely to generate substantial volumes of traffic should be located in an area where options for sustainable travel are widely available in order to minimise the need to travel by car.

Planning obligations should exploit sustainable travel modes for the delivery of goods. Thus, the development should:

- Give priority to pedestrians and cyclists
- Create a safe layout to reduce conflicts between vehicles, pedestrians and cyclists
- Consider the disabled and less able
- Incorporate electric vehicle charging facilities to ensure low emission vehicles are provided for.

Local Planning Policy

2.3 Shropshire Core Strategy

The Core Strategy developed within Shropshire was adopted on 24th February 2011. The Strategy underscores the Council's spatial vision and strategy for Shropshire alongside the policies for achieving these goals. This will enable the guidance in relation to the location, design, form and use of land and buildings across the county to 2026.

2.3.1 - **SAMDev**

Concurrent with the Core Strategy, Shropshire Council has also adopted a Site Allocations and Management of Development (SAMDev) plan on 17th December 2015. Within the SAMDev, this site is allocated for the provision of up to 50 dwellings under the site SHREW001.

2.3.2 - **Allocation of SHREW001 states;**

“Development to be low density and be served by new accessed off London Road, to include a landscape buffer to the adjoining Crematorium site and to have a well landscaped eastern edge having regard to the sensitivity of the Severn valley and views to the site from the east.”

Rather than houses being served by an access on London Road, the access to the site shall be formed from the spine road that has been created in relation to the development taking place at allocation site SHREW027 – Land at Weir Hill.

2.3.3 - **Policy CS7**

Policy CS7 (Communication and Transport) of the Core Strategy also relates to transport and states:

“A sustainable pattern of development requires the maintenance and improvement of integrated, accessible, attractive, safe and reliable communication and transport infrastructure and services. These need to provide a range of opportunities for communication and transport which meet social, economic and environmental objectives by improving accessibility, managing the need to travel, offering options for different travel needs and reducing the impacts of transport.”

This policy, therefore, aims to encourage more informed choices about factors that impact the way people travel and communicate through the enhancement of services and infrastructure.

2.3.4 - **Shropshire Local Transport Plan (2011 – 2026)**

The Local Transport Plan (LTP) for Shropshire highlights how Shropshire Council and their partners intend to maintain, manage and improve cost effective and sustainable transport provisions within the County during the period of 2011 – 2026. Throughout this time, there are a number of key challenges that the LTP will face including:

- Improving connectivity and access through modes of sustainable transport
- Ensure that new housing/employment supports growth and encourages sustainable travel behaviour

The aims and objectives of the LTP are to:

- Improve connectivity and access, especially in relation to modes of sustainable travel
 - Ensure that new housing/employment developments support growth and encourage sustainable travel behaviour
 - Minimise the impact of transport on the local environment and reduce transport related carbon emissions
 - Ensure that there is no degradation of the current highway network conditions
 - Increase the attractiveness of active modes of travel and improve road safety
 - Enable people to be able to access services and facilities more easily
-

3 The Development

3.1 Site Location

The development site lies on the eastern edge of Shrewsbury, approximately 3km from the town centre and 1km to the west of Emstrey. The A5 runs circa 500m to the east of the development and provides access to the wider local highway network, allowing for access to the M54 approximately 12km to the east. The A5064 London Road is located to the south of the site and provides direct access to the A5.

The site is bound to the west by Emstrey Crematorium, to the south by London Road and dwellings that are already in existence located on London Road, and to the east by the Spine Road that provides access to the site and the River Severn beyond that.

Appendix A contains a site location plan and the latest iteration of the site layout for information.

3.2 Existing Site Access

The site is currently Greenfield that has been used for agricultural purposes. Access to the site is restricted as there is no vehicular access to the site either from London Road or the Weir Hill Spine Road that has been recently built. The site is visible from the corner of the junction of London Road and the access road to Weir Hill.

3.3 Proposed Site Access

A new vehicular access will be created from the Weir Hill Spine Road. This access point will be the only vehicular access to the main development. A small number of properties will be served by new accesses that will be created on London Road. However, there will be no through route from these accesses to the main development, they will solely provide access to the properties located from them.

The primary access off the Weir Hill Spine road conforms to the traditional geometric requirements specified by Shropshire Council to serve up to 200 dwellings. These being:

- 5.5m carriageway width
- 2 x 2m footways
- Junction radii onto Weir Hill of 10.5m
- Turning Heads at the end of all cul-de-sacs
- 20mph design speed
- 2.4m x 43m visibility onto the 30mph Weir Hill spine road
- 2.4m x 25m visibility splays at junctions within the internal layout

The minor accesses, serving the three pockets of grouped dwellings directly off London Road, will take the form of footway vehicular crossovers. These will be installed to Shropshire Council S.184 specification and with the requisite vegetation removal/maintenance across the application site frontage, visibility splays of 2.4m x 120m can be achieved. It is also to be noted that each of the private courts, served by these crossover accesses, have ample turning space to ensure forward gear exits onto London Road for vehicles exiting from these properties. These arrangement is consistent with the existing properties served off London Road in this location.

Appendix H provides an Autotrack assessment of a large refuse vehicle negotiating the main site access and turning heads within the site. The tightest 90 deg bend within the site has also been modelled to demonstrate a worst case and that there will be no issue in use elsewhere on the access roads for vehicles up to 11.3m in length. Therefore this accounts for emergency service vehicles also, such as a standard Rescue Pump type vehicle at a usual length of 8m.

As part of the access works that have been carried out for the Weir Hill development (SAMDevo27), a new ghost island right turn junction has been created on the A5064 that allows traffic wishing to access Weir Hill from the Emstrey Roundabout direction to wait outside of the east to west running lane when gap seeking for the turn. The junction is located approximately 230m away from Emstrey Roundabout and has a visibility splay of 2.4m x 120m in accordance with 40mph standards as set out in Design Manual for

Roads and Bridges. The junction works have received full technical approval from SC and were constructed by McPhillips Civil Engineering in 2019.

3.4 Highway Network

The surrounding local highway network can be considered as the following:

- Weir Hill Spine Road
- A5064 London Road
- Emstrey Roundabout

3.4.1 - Weir Hill Spine Road

Weir Hill Spine Road is a two way single carriageway road with a width of 6.1m that serves the housing development to the north of the proposed development site. The main purpose of this road is to act as a means of connecting the new development to London Road.

Weir Hill Spine Road is subject to a 30mph speed limit as traffic enters from London Road. The speed limit continues to be this for the length of the road. There are footways on both sides of the carriageway, a footway of 2m on one side and a shared pedestrian/cycle route of a 3m width on the other.

3.4.2 - London Road

London Road is a two way single carriageway that has a width of circa 7m. This road is one of the main routes into Shrewsbury town centre. It runs in a general northwest to southeast direction past the south of the site and connects to the strategic road network at Emstrey Roundabout to the east.

London Road is subject to a 40mph speed limit as traffic leaves Emstrey Roundabout, heading towards Shrewsbury Town Centre. The speed limit reduces to 30mph heading from Shrewsbury College of Arts and Technology. The road is street lit with a 1.2m wide footway along the north side of the road. To the south side of the carriageway, a 2.0m grass verge, at its widest, runs along the road that narrows until reaching the Emstrey Roundabout bus stop. From this point onwards, there is a split footpath/cycleway with a width of 2.4m that runs along the southern side of the carriageway to the far side of the bus stop. Beyond the bus stop, the footpath narrows to 1.2m. Where this pathway commences, there is tactile paving and dropped kerbs to allow for pedestrians to cross from the southern footpath to the northern side of the road.

3.4.3 - Emstrey Roundabout

Heading away from the site to the east, London Road joins the A5 at Emstrey Roundabout. This roundabout sits within 200m of the access to Weir Hill Spine Road and 400m from the access created from London Road to the site. The A5 runs west and then north towards North Wales or the A49 or east towards the M54, Telford, Wolverhampton and the M6 beyond. The A5 is a two-way dual carriageway road which is subject to the national speed limit.

The B4380 also has exit points from the roundabout, which allows for travel towards Attingham Park towards the east, a National Trust site and offers an alternative route to Telford instead of the A5 and M54. The B4380 is generally subject to the national speed limit heading in both east and west directions at 60mph; although there is a 40mph limit through the village of Atcham.

3.5 Connectivity

As well as the access onto the Weir Hill spine road, pedestrians will be able to access the site via three defined footpath links that will connect the south side of the site to London Road. The central one of these is opposite the footpath/cyclepath that leads directly through to Shrewsbury Business Park and the local facilities such as the Co-op on Anchorage Avenue.

London Road benefits from existing pedestrian infrastructure with a 1.2m footpath on the northern side and a footpath/cycleway of 2.4m on the southern side in the vicinity of Emstrey Roundabout bus stop. London Road is subject to a 40mph speed limit that has street lighting on the southern side of the road adjacent to Shrewsbury Business Park. However, heading towards Shrewsbury on London Road away from the business park, there is no street lighting on either side. Within the vicinity of the development, there is only one crossing where the kerb is dropped and there is tactile paving. This is where the bus stop is located adjacent to Shrewsbury Business Park. Cornovii could deliver improvements, as appropriate, to the lighting of this section of road, along with further crossing points for pedestrians as required by Shropshire Council. This matter is discussed further in 3.7.

Further details on the existing infrastructure and accessibility to services within the vicinity of the development and further in to the town of Shrewsbury is set out in Section 4 below.

3.6 Parking

The provision of off street parking in the development is generally consistent with all other recent residential developments in Shrewsbury. Shropshire Council currently has no adopted parking standards and works on the principle that sensible levels are provided. An under provision can result in indiscriminate parking and an over provision can result in little incentive to temper levels of car ownership. It is therefore all about balance.

This application is generally providing two parking space per dwelling but with some of the 4 bed units receiving the addition of an on plot garage and some of the apartments receiving less than two spaces but with some overflow for visitors. In total 288 off street spaces are being provided, which derives to just over two spaces per unit.

It is to be noted also that 5.5m wide carriageways are proposed through the site, which does allow for some on street parking, where necessary, without vehicles having to mount the footway to allow sufficient corridor for vehicles to pass. There is also a strong argument that on street parking is an effective form of traffic calming and helps achieve 20mph design speeds on residential streets.

3.7 Offsite Improvements

The development is generally well appointed in terms of its location and lies adjacent to established infrastructure, which has successfully provided service to this area of Shrewsbury for many years. Therefore no significant levels of offsite improvement are either required or justified in planning terms.

Notwithstanding this, local public engagement on the development proposals has generated a request to look at the implementation of a uniform 30mph zone from the exit off Emstrey Rounabout all the way up to the existing 30mph gateway, just to the north of the Crematorium on London Road.

Due to the increased levels of site frontage, as a result of the new development, this 30mph extension has merit but will be subject to opinion from Shropshire Council in terms of implementation logistics, consultation and wider strategic objectives in the area. However Cornovii does accept that the speed change implementation, and any associated infrastructure, could be funded by them as part of the development. It is suggested this would be under a contribution arrangement rather than conditioned works on any consent given.

Figure 3.1 – Possible extension of 30mph zone on London Road

Existing 30mph – Potential 30mph Extension



4 Sustainability

4.1 Introduction

National Government guidance dictates that new developments should encourage and promote accessibility and travel modes that are made by methods other than domestic vehicles. New proposals should influence the mode of travel and shift away from traditional car usage to methods that are more sustainable.

Paragraph 110 of the NPPF states that priority must be given to pedestrian and cycle movements both within the scheme and with neighbouring areas and that this, as far as possible, should facilitate access to high quality public transport links. Not only this, it should address the needs of the people and create spaces that are safe and secure whilst also allowing for the efficient delivery of goods.

4.2 Pedestrian Network & Facilities

It is suggested that pedestrians are prepared to walk up to 2kms between home, the workplace and/or local amenities as long as routes are accessible, identified and benefit from a positive environment. Manual for Streets highlights that 'walkable neighbourhoods' have a range of facilities within 800m but this is not regarded as the upper limit for walking journeys. Walking journeys have the greatest potential to replace car trips for journeys that are under 2km.

There are a number of amenities, education providers and businesses that fall within a 2km radius of the proposed development, from the approximated centre, via the existing pedestrian network:

- Shrewsbury Business Park
- Shrewsbury Cricket Club - 400m
- Shrewsbury College - 650m
- Co-Op – 700m
- London Road Sports Centre – 850m
- Mereside Primary School – 1.0km
- Prestfelde Preparatory School – 1.3km
- Peacock Inn – 1.4km
- The Shire Fryer – 1.6km
- Rowlands Pharmacy – 1.7km
- Shire Hall (Shropshire Council) – 1.7km
- The Shrewsbury Fish Bar – 1.8km
- Sainsbury's Local – 1.8km
- Aldi – 1.9km
- Reabrook Reserve – 1.9km

The array and sheer number of facilities within a 2km radius of the site ensures that it is highly sustainable regarding facilities that are available via a walking journey.

The site benefits from the existing pedestrian infrastructure that has been developed as part of the Taylor Wimpey and Persimmon development on Weir Hill that will adjoin to London Road. The site will also benefit from the proposed pedestrian accesses that will be constructed at the south of the site, which allows for better thoroughfares to onwards walking destinations and will be served by tactile crossings with dropped kerbs in close proximity.

Appendix B highlights where pedestrians can travel to within set time frames from the site.

4.3 Cycle Network & Facilities

As a result of Covid-19, cycling has seen a big increase in the number of journeys that people make via this transport mode with 5 billion miles being cycled on British roads in 2020. The Department of Transport reported that cycling was 45.7% above 2019 levels in 2020 with their Road Traffic Estimates Great Britain 2020 paper.

The proposed development site is not served by any formal cycle routes as denoted by Sustrans, however, there are cycle ways within the vicinity of the development that allow for off road cycling to access the wider cycling network. From the bus stop on London Road, a cycleway heads south through Shrewsbury Business Park that then joins Anchorage Avenue heading in a westerly direction. At the end of Anchorage Avenue, the cycleway continues south on Wenlock Road to the roundabout with the B4380. From here, cyclists can follow the cycleway along the B4380 in a westerly direction for approximately 550m where the path then changes to a northerly direction.

Following this sign posted route, cyclists can reach Shrewsbury town centre, a route which is approximately 4km in length from the edge of the development site. Aside from this route, cycling is predominantly undertaken through on road journeys on London Road with broken white lines denoting a cycle lane. The pathway is well illuminated for a journey from Shrewsbury Business Park to the town centre.

Figure 4.1 – Cycling provision from London Road adjacent to Shrewsbury Business Park



Figure 4.2 – Cycling provision on Anchorage Avenue



Figure 4.3 – Cycling provision adjacent to Mere Pool



From the town centre, it is here that Shrewsbury is linked to the National Cycle Network. National Route 81 is a route that connects Aberystwyth and Shrewsbury with a combination of on road and off road sections. At Porthill, just to the south west of Shrewsbury, National Route 81 joins National Route 44. National Route 44 connects Shrewsbury with Cinderford, Gloucestershire and, again, is a mixture of on road and off road segments.

Shrewsbury town centre is within 5km of the development site making it accessible by bike in less than 20 minutes. Geographically, the route in to town is predominantly flat and the majority of the route can be rode on cycleways through the business park and adjoining routes.

To demonstrate the accessibility of the site by cycle, Appendix C illustrates the area that a 20 minute journey from the site could cover. This catchment area covers Shrewsbury town centre, Shrewsbury train station and a variety of employment and educational locations.

4.4 **Bus Network**

The Development site is located within a short walking distance, circa 150m, from the Emstrey Roundabout bus stop that heads towards Shrewsbury town centre. There is also a bus stop that heads away from Shrewsbury that is also called Emstrey Roundabout that is located approximately 200m from the site. These stops are located on London Road either side of the access road to Weir Hill.

There are a number of services that operate from these stops that run on a regular basis throughout the day. Heading towards Shrewsbury, a number of different services are operated by Arriva buses that run throughout the day with the route terminating at Shrewsbury Bus Station. Arriva buses also operate the services that head away from Shrewsbury towards Telford. Bus timetable information is outlined below in Table 4.1 & 4.2.

Table 4.1: Emstrey Roundabout to Shrewsbury

Services	Operating Days	AM Peak Operating Times	PM Peak Operating Times	Frequency of Service	Route
8A, 19, X4, X5	Mon – Fri 07:38 – 18:34	08:12, 08:28, 08:43, 09:23	16:39, 17:08, 17:14, 17:39, 17:48	Every 30 minutes with a number of additional services throughout the day	London Road – High Street – Shrewsbury Bus Station
8A, 19, X4, X5	Sat 08:12 – 18:34	08:12, 08:28	16:23, 17:08, 17:14, 17:48	Every 30 minutes with a number of additional services throughout the day	London Road – High Street – Shrewsbury Bus Station

Bus services that head east away from the development are scheduled to head to Telford town centre.

Table 4.2 – Emstrey Roundabout – Telford Town Centre

Services	Operating Days	AM Peak Operating Times	PM Peak Operating Times	Frequency of Service	Route
8A, 19, X4, X5	Mon – Sat 06:55 – 17:56	07:54, 08:02, 08:14, 08:22	16:56, 17:04, 17:56	Every 30 minutes with a number of additional services throughout the day	London Road – Telford Town Centre

4.5 Rail Network

From the proposed development site, the closest train station is Shrewsbury Train Station which is located 3.5km to the west of the site. Shrewsbury Train Station is managed by Transport for Wales. The station operates throughout the week and provides parking for vehicles and cycles. There are 145 vehicle parking spaces available which are located off Howard Street while there is also 100 cycle storage spaces and a further 45 cycle hoops.

Shrewsbury, due to its location, acts as a rail hub and, therefore, offers a wide range of rail services branching off across the rest of the country. From Shrewsbury, commuters can travel to destinations including: Aberystwyth, Chester, Crewe, Wolverhampton, Birmingham and Cardiff. There is also a daily service that travels directly to London Euston.

Within the Shropshire Local Transport Plan, it is noted that train journeys are used less for commuting locally but are used more regularly for travel further afield due to poor facilities closer to home as a result of neighbouring towns in the county not being connected to the rail network.

Table 4.3 provides details on rail services that are available to various destinations from Shrewsbury Train Station

Table 4.3 – Summary of direct rail services that operate from Shrewsbury Train Station

Route	Frequency of Service during peak hours	Travel Time	AM Peak Departure Times	PM Peak Arrival Times
Shrewsbury to Telford Central	Approximately every 20 minutes	18 – 23 minutes	07:14, 07:31, 07:47, 08:13, 08:33	17:10, 17:22, 17:37, 18:10
Shrewsbury to Aberystwyth	Approximately every 120 minutes (only Mon – Fri)	115 minutes	07:27	19:21
Shrewsbury to Crewe	Approximately every 60 minutes	29 – 54 minutes	07:46, 08:36	16:49, 17:39, 18:14
Shrewsbury to Chester	Approximately every 50 minutes	53 – 59 minutes	07:32, 08:25	17:15, 18:28
Shrewsbury to London Euston	Once daily Monday to Saturday	Between 150 – 200 minutes	Mon – Fri 06:39 Sat – 08:19	Mon – Fri 20:55 Sat – 20:56
Shrewsbury to Birmingham New Street	Approximately every 15 – 20 minutes	60 – 75 minutes	07:14, 07:31, 07:47, 08:13	17:10, 17:22, 17:37, 18:10

4.6 Summary

Most of the amenities in Shrewsbury town centre are a relative walking distance from the development site. The town centre is approximately 3km from the site, there is a small supermarket/grocery store within 1km of the development with the nearest large supermarket being 3km away. The closest primary school to serve the site is located 1000m walking distance from the site with the nearest train station being a 3.7km walk. Shrewsbury has an extensive network of footpaths and cycleways that connect the town centre to various residential, commercial and industrial, thus promoting sustainable journeys whilst commuting or travelling in and around the town.

5 Accident Data

5.1 Introduction

Accident data has been gathered from Crashmap.co.uk in reference to the proposed development. A search area from the junction of New College Road up to and including Emstrey Roundabout and the immediate approaches to it, show that there has been 24 accidents over the past 5 years.

Emstrey Roundabout and its approaches have recorded 23 of the 24 incidents. In 2016, 4 accidents were recorded with a further 3 accidents in 2017, 6 accidents in 2018, 7 in 2019 and 3 incidents in 2020. As an average, this equates to 4.6 accidents a year or just over one every three months.

There has also been one incident recorded on London Road in the study area. The accident took place between New College Road and the entrance to Emstrey Crematorium. It is listed as a slight incident that took place in 2017.

Appendix D provides plot locations of these accidents from 2016 – 2020. Also shown are the accident details for the slight accident which occurred on London Road in 2017 and the 5 serious accidents which occurred on Emstrey Roundabout, between 2017-2019.

5.2 Analysis

5.2.1 – London Road

The slight accident that occurred in 2017 on London Road was attributed to a teenage pedestrian walking in the roadway with his back to oncoming traffic, when he was struck by a vehicle being driven by an OAP. The accident occurred in winter darkness. The incident is clearly the coming together of two factors, these being, a pedestrian walking in the live carriageway when there is a footway available and the possible lack of attention from the vehicle driver.

5.2.2 – Emstrey Roundabout

At a first principles level, at what is a large 5 arm roundabout on a major trunk road, which accommodates daily traffic flows in excess of 40,000 vehicles, it can be considered to be operating safely. The roundabout is traffic signalled on 4 of its 5 arms and has pedestrian crossing facilities incorporated. As a result give way decision making by drivers, when negotiating the roundabout, is minimised and therefore the conflict risk is reduced significantly, which combined with low vehicle circulation speeds is likely to explain the low number of accidents.

The five serious accidents that have occurred can fall into the following three categories:

- rear shunts at speed into stationary traffic
- lane change conflict
- loss of vehicle control

Unfortunate as these incidents are individually and to those involved in them, they are standard type events on the highway network and are typically due to driver error and/or lack of driver attention.

It is also to be noted that no fatal accidents have occurred in the analysis window.

5.3 Conclusion

The analysis of the accident data highlights no specific issues or safety deficiencies on the highway network adjacent to the site that would be exacerbated by the proposed development.

6 Highways Impact

As part of the transport assessment, a baseline assessment of the local links and traffic flows has been undertaken.

6.1 Base Traffic Count Data

6.1.1 – May 2021 Baseline

Due to the COVID 19 pandemic accurate traffic data collection since March 2020 has not been possible. Notwithstanding this however Manual Traffic Counts were undertaken on May 25th and May 26th to assess the junction of Kingston Drive with London Road. This junction was chosen due to its proximity with the development site, its entry and egress on to London Road which is where traffic from the development site shall join the highway network, and due to having a similar nature of dwellings.

The data collected was between Step 3 and Step 4 COVID lockdown restriction release and therefore cannot be considered to be 100% robust but it should provide an idea of movement patterns and distributions along London Road. In addition the original Weir Hill development TA will be reviewed to inform traffic volumes and distributions further for a more accurate appraisal.

The traffic counts on May 25th and 26th were undertaken by ApT. On May 25th, an AM peak hour (08:00 – 09:00 hours) assessment was undertaken that monitored the number of vehicles that left Kingston Drive and turned on to London Road. The number of vehicles that passed the junction on London Road was also surveyed as were the number of arrivals into Kingston Drive from London Road.

On May 26th, a PM peak hour assessment was carried out that monitored the number of vehicles that turned into Kingston Drive from London Road as well as the direction that these vehicles came from.

During both traffic counts, the number of non-turning vehicle movements along London Road were also counted.

The traffic flow diagrams for the data collected are presented in Appendix E.

Table 6.1 below shows the number of vehicle movements leaving the residential estate of Kingston Road and joining London Road as well as detailing the direction of travel on London Road.

Table 6.1: Arrivals and Departures at peak AM and PM times at the Kingston Road/London Road priority junction

Kingston Road	Arrivals from Town Centre direction	Arrivals from Emstrey Roundabout direction	Departures towards the Town Centre	Departures towards Emstrey Roundabout
AM Peak Trips (08:00 – 09:00)	7	3	33	17
PM Peak Trips (17:00 – 18:00)	16	6	10	5

Table 6.2 below shows the directional split in percentage terms for traffic entering and exiting Kingston Road. This information provides an idea of the directions the new development traffic may head as it departs onto London Road from the Weir Hill spine road.

Table 6.2: Arrivals and Departures at peak AM and PM times at the Kingston Road/London Road priority junction

Kingston Road	Arrivals from Town Centre direction	Arrivals from Emstrey Roundabout direction	Departures towards the Town Centre	Departures towards Emstrey Roundabout
AM % (08:00 – 09:00)	70%	30%	66%	34%
PM % (17:00 – 18:00)	73%	27%	67%	33%

Table 6.2 identifies the total number of vehicles that utilised London Road during peak times and the direction in which those vehicles were traveling.

Table 6.2: Traffic traveling along London Road

London Road	Traveling towards Shrewsbury town centre	Traveling towards Emstrey Roundabout	Total
AM Peak Trips (08:00 – 09:00)	590	478	1068
PM Peak Trips (17:00 – 18:00)	516	435	951

6.1.2 – Weir Hill development benchmarking

The Weir Hill development sits just to the north of this proposed development and consists of 600+ new build Taylor Wimpey and Persimmon houses. The transport assessment for that site was prepared in 2017 and undertakes a comprehensive analysis of the surrounding road network up to the year 2026. The assessment was fully audited and approved by Shropshire Council and is available to view in full on the Shropshire Council planning system under application number 17/01612/OUT.

A review has been made of the 2026 flow and distribution scenarios on London Road with all background growth and the proposed development of 600 units loaded. Table 6.3 below summaries the flows and distributions at the junction between the Weir Hill spine road and London Road.

Table 6.3: 2026 Weir Hill Spine Road/London Road junction predicted flows and distribution taken from Weir Hill TA 2017

Weir Hill Spine Road	Arrivals from Town Centre direction	Arrivals from Emstrey Roundabout direction	Departures towards the Town Centre	Departures towards Emstrey Roundabout	London Road traveling towards Shrewsbury town centre	London Road traveling towards Emstrey Roundabout
2026 AM Peak Trips (08:00 – 09:00)	0	47	0	145	640	634
2026 PM Peak Trips (17:00 – 18:00)	0	121	0	72	725	569

6.1.3 – Discussion

The London Road major arm flows, independent of the Weir Hill development flows, are circa 30% higher in the 2026 analysis than the May 2021 data collected. Although the May 2021 data was collected during the COVID pandemic, it was in a period where many restrictions had been lifted and DfT data suggests traffic levels were at 94-95% of what they were prior to March 2020. Accordingly, the flows from the 2026 assessment are assumed to be a robust position to consider this new development from.

The turning proportions however for the Weir Hill development onto London Road cannot be carried forward to this development as Weir Hill has dual access, where east and northbound trips are likely to enter and exit via Preston Street. Therefore the turning proportions derived from the May counts at Kingston Avenue would seem suitable for the movements split for out onto London Road for this development site.

6.2 Trip Generation

The proposed development will comprise of 142 dwellings. Given the location of the development, the greatest impact upon the highway network in accordance to transport use is likely to be of highest significance during the weekday AM and PM peak hours.

In order to obtain the expected trip rates that the proposed development will generate, the TRICS database has been utilised to obtain appropriate trip rates for a development of this size and nature. The TRICS database allows for comparable information to be drawn from a range of sites similar to that of this proposed development. Therefore, it is possible that an approximation can be made on how many additional trips will be created through the proposal and the impact this will have on the network and its capacity to cope.

The TRICS rates that have been generated for the proposed development are provided in Appendix F.

Table 6.4 analyses the output data from TRICs in reference to the number of journeys that would be expected to be made at peak times in the day.

Table 6.4: TRICs overview for peak travel times

Time Period	TRICs Trip Rate using weekday surveys		TRICs Derived trips for 142 Dwellings	
	Arrivals	Departures	Arrivals	Departures
AM Peak (08:00 – 09:00)	0.141	0.391	20	56
PM Peak (17:00 – 18:00)	0.348	0.154	50	22

The data derived from TRICs estimates that 76 two way trips, at the AM peak, and 72 two way trips, at the PM peak, will be made to and from the development site.

Table 6.5 below details the trip rates agreed for the Weir Hill site in 2017 and the corresponding vehicular movements if applied to this site.

Table 6.5: Trip rates agreed with SC from 2017 Weir Hill TA

Time Period	TRICs Trip Rate using weekday surveys (Weir Hill TA 2017)		TRICs Derived trips for 142 Dwellings	
	Arrivals	Departures	Arrivals	Departures
AM Peak (08:00 – 09:00)	0.141	0.434	20	62
PM Peak (17:00 – 18:00)	0.362	0.214	51	30

There is very little difference between the two trip rate scenarios above. The comparison exercise has been useful to establish a consistent approach. For robustness going forward the Weir Hill trip rates will be used as they are slightly higher.

6.3 Trip Distribution

It is expected that the majority of development traffic will vacate and enter the site from London Road via the Weir Hill spine road. There may be some movements to the north, to access the Weir Hill development itself, or progress through to Preston Street but this will be infrequent and have a non-material impact. For robustness it will be assumed that all traffic to and from the new site makes its way to and from London Road. For simplicity and to enhance robustness further it will be assumed that the 12 plots served directly off London Road come out at the Weir Hill spine road also.

Table 6.6 below extrapolates the vehicular trips and the turning proportions from the Kingston Road count to demonstrate the predicted vehicle loading this site will have onto the network.

Table 6.6: Expected vehicular trips and distributions onto London Road from the site

Weir Hill Spine Road	Arrivals from Town Centre direction	Arrivals from Emstrey Roundabout direction	Departures towards the Town Centre	Departures towards Emstrey Roundabout
AM Peak Trips (08:00 – 09:00)	14	6	41	21
PM Peak Trips (17:00 – 18:00)	37	14	20	10

6.4 Impact

Table 6.7 below shows the predicted vehicle movements at the Weir Hill/London Road junction in 2026. The figures now include growth to 2026, a completed Weir Hill development and a completed Cornovii site.

Table 6.7: Total predicted vehicle movements at the Weir Hill/London Road junction 2026

Weir Hill Spine Road	Arrivals from Town Centre direction	Arrivals from Emstrey Roundabout direction	Departures towards the Town Centre	Departures towards Emstrey Roundabout	London Road traveling towards Shrewsbury town centre	London Road traveling towards Emstrey Roundabout
2026 AM Peak Trips (08:00 – 09:00)	14	53	41	166	640	634
2026 PM Peak Trips (17:00 – 18:00)	37	135	20	82	725	569

For context the net quantum of new traffic onto London Road, as a result of the Cornovii development, can be demonstrated as follows.

Table 6.8: % impact of the Cornovii site on all traffic through the Weir Hill/London Road junction.

	Quantum of traffic on the London Road Junction at 2026	Quantum of Cornovii site specific generated traffic on the London Road Junction	Net % Increase on the junction
AM Peak Trips (08:00 – 09:00)	1466	82	5.6%
PM Peak Trips (17:00 – 18:00)	1487	81	5.4%

It is clear that in sheer quantum terms the impact is very small. However junction capacity can be sensitive to even minor increases in traffic and the distribution of the trips. It is therefore considered appropriate to review the theoretical capacity of the Weir Hill/London Road Junction.

6.4.1 – Capacity of the Weir Hill/London Road Junction

As discussed previously this junction currently takes the form of a priority ghost island and has recently been implemented as such to accommodate the Weir Hill traffic to and from the south in the future. The SC accepted Weir Hill TA from 2017 considered the capacity of this junction up to 2026, where all future traffic at that time was accounted for but not the Cornovii site at that time. That analysis concluded the following, which is a direct lift from the 2017 TA.

Table 52: Assessment of London Road Site Access 2026 Factored + Proposed Development (600) Flows

Approach	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
Site Access – Left Turn, Right Turn	0.32	0.46	0.15	0.18
London Road East – Ahead, Right Turn	0.09	0.10	0.22	0.28

On the face of it, it appears that RFC's are well below the 0.85 threshold and max queue lengths fail to muster just one waiting vehicle. This suggests the junction at 2026, without the Cornovii flows, is operating well below its theoretical capacity. Notwithstanding this however a Junctions 9 analysis has been run to include the predicted Cornovii flows. The report for this is included in Appendix G. It is to be noted that geometric parameters are in line with those used in the 2017 analysis for consistency.

Table 6.9 below summarises the 2026 plus Cornovii Junctions 9 analysis in the format presented in the 2017 TA for comparability.

Table 6.9: Assessment of Weir Hill/London Road Junction 2026 Factored + 600 Weir Hill dwellings + 142 Cornovii dwellings

Approach	AM Peak		PM Peak	
	Max. RFC	Max. Queue	Max. RFC	Max. Queue
Site Access – Left Turn, Right Turn	0.55	1.2	0.33	0.5
London Road East – Ahead, Right Turn	0.3	0.4	0.28	0.4

The updated Junctions 9 assessment indicates a minimal impact on the efficiency of the Weir Hill/London Road junction. The only notable change is the increase in max queues at the AM peak on the Weir Hill Road to just over one vehicle waiting.

6.4.2 – Impact on the Column Roundabout

The Column Roundabout lies circa 1.7km to the north of the development site and is where London Road terminates. It is here that the majority of the site generated traffic heading to and from the north will join the wider Shrewsbury highway network.

The trip rate and distribution exercise indicates that at the AM peak 14 new vehicular trips will negotiate the Column Roundabout, heading to the site, and 41 will negotiate it, while heading away. Across the peak hour this averages out at one new trip every 4.3 minutes heads to and one new trip every 1.5 minutes heads away from the site and through Column Roundabout.

Repeating this same methodology to the PM peak flows, this averages out at one new trip every 1.6 minutes heads to and one new trip every 3 minutes heads away from the site and through Column Roundabout.

In real terms this impact is likely to be unperceivable and dissipate into the local daily traffic fluctuations. It is also worth noting that the Weir Hill TA assessment of the roundabout for 2026 indicated that max queueing shouldn't exceed five waiting vehicles on any arm at peak hours.

6.4.3 – Impact on Emstrey Roundabout

The trip rate and distribution exercises for the site have indicated the majority of traffic generated will be to and from Shrewsbury town centre. However some traffic will enter and exit Emstrey Roundabout, which bookends the southern extent of London Road just 300m from the site. The exercises suggest that at the AM peak 6 new vehicular trips will negotiate the Emstrey Roundabout, heading to the site, and 21 will negotiate it, while heading away. Across the peak hour this averages out at one new trip every 10 minutes heads to and one new trip every 2.9 minutes heads away from the site and through Emstrey Roundabout.

Repeating this same methodology to the PM peak flows, this averages out at one new trip every 4.3 minutes heads to and one new trip every 6 minutes heads away from the site and through Emstrey Roundabout.

Again, as per the Column Roundabout, in real terms this impact is likely to be unperceivable and dissipate into the strategic networks daily traffic fluctuations. It is also worth noting that Emstrey Roundabout is predominantly signalled with an intelligent detection system in place to balance flows between arms and regulate queueing as necessary.

6.5 Summary

Robust exercises have been undertaken to establish the traffic impact of the development and have been carried out against the background assumptions made for the future year of 2026 in the Weir Hill TA from 2017.

The work undertaken does not in any way indicate a severe impact on any part of the local or strategic highway network and therefore accords with the NPPF test para 111.

7 Summary & Conclusions

apT has been instructed by Cornovii to produce a Transport Assessment in relation to their development proposals for SAMDev site 001 – Land north of London Road.

The development proposal is for 142 dwellings on land that has been used previously for agricultural purposes. The proposed development will be served through the creation of a new vehicular access from the spine road that has been built for SAMDev site 027, known as Weir Hill. There will also be a small number of dwellings that will have direct access to and from London Road. These access will not allow for any through travel to the wider site, minimising risk and the impact of additional access points on to London Road.

The site benefits from access to high quality existing transport infrastructure. There is easy access to the cycle network allowing for journeys to and from Shrewsbury Town Centre, the nearest bus stop is adjacent to a pedestrian link point on London Road with regular bus services to Shrewsbury and Telford town centres thus, promoting sustainable methods of travel for commuting and leisure purposes. The road network is also well catered for with the major route of the A5 being within 500m of the development site.

Many local amenities also fall within 2km of the site with a high level of accessibility for pedestrians and cyclists from the site. Shrewsbury town centre is approximately 3km from the site but, with the proximity of bus stops and regularity of buses, it is easily accessible.

Shrewsbury Train Station is approximately 3.7km to the west of the site with regular services to Telford, Birmingham and Wolverhampton.

Cornovii are happy to work with Shropshire Council to potentially deliver an extension to the London Road 30mph zone across the site frontage linking Emstrey to the Crematorium.

Accident data from the locale shows that there are no extant matters of particular concern and certainly not anything that could be exacerbated by this development.

The traffic impact analysis makes considerations up to 2026 and has fully accounted for the committed development at Weir Hill. The assessments are as robust as they can be considering the impact of the COVID pandemic has limited the opportunities for data collection. It has been demonstrated that the highway network adjacent to the site will not be impacted to any level that could be considered severe under the NPPF tests.

Based on the findings of this Transport Assessment, it can be concluded that the proposed development will not have an overall detrimental impact on the highway network in regards to road safety, traffic and highway terms. In accordance with the NPPF, sustainable modes of transport can be actively encouraged through the existing pedestrian and cycle network in partnership with a regular bus services. Residents would also be well served in regards to local amenities that can be reached through sustainable travel modes.



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