



Transportation Planning : Infrastructure Design

TRAFFIC & TRANSPORT STUDY

**Warburton Traffic & Transport Study,
Warburton, Lymm**

Warburton Parish Council

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1.0 INTRODUCTION

General

- 1.1 SCP have been commissioned by Warburton Parish Council to prepare a Traffic and Transport Study for the Warburton area, paying particular attention to accidents, traffic speeds and traffic volumes. The report provides a review of these and sets out potential mitigation/improvement measures as a result of the potential additional traffic which may arise as a result of significant committed development located to the north of the area in Partington and Carrington.
- 1.2 A site visit was carried out on 16th November 2023 in dry and fair conditions. Traffic surveys were undertaken in 6 locations for 7 days between Monday 13th November 2023 and Sunday 19th December 2023, with the exception of A6144 Warburton Lane which was re-surveyed between Sunday 26th November and Saturday 2nd December due to damage during the first survey and a delay as a result of road maintenance.

Structure of This Report

- 1.3 The structure of this report is as follows:-
 - Chapter 2 - describes in detail the site location and local highway network, including the walk, cycle and public transport opportunities in the area;
 - Chapter 3 – reviews the road safety record of the area over the last 10 years;
 - Chapter 4 – provides an overview of recent traffic volumes and speeds;
 - Chapter 5 – includes a review of locally committed developments;
 - Chapter 6 – sets out a summary of issues;
 - Chapter 7- sets out typical traffic calming and safety measures for rural areas;
 - Chapter 8- provides the summary and recommendations arising as a result of the report; and,
 - Chapter 9- includes a summary and conclusions

2.0 EXISTING CONDITIONS

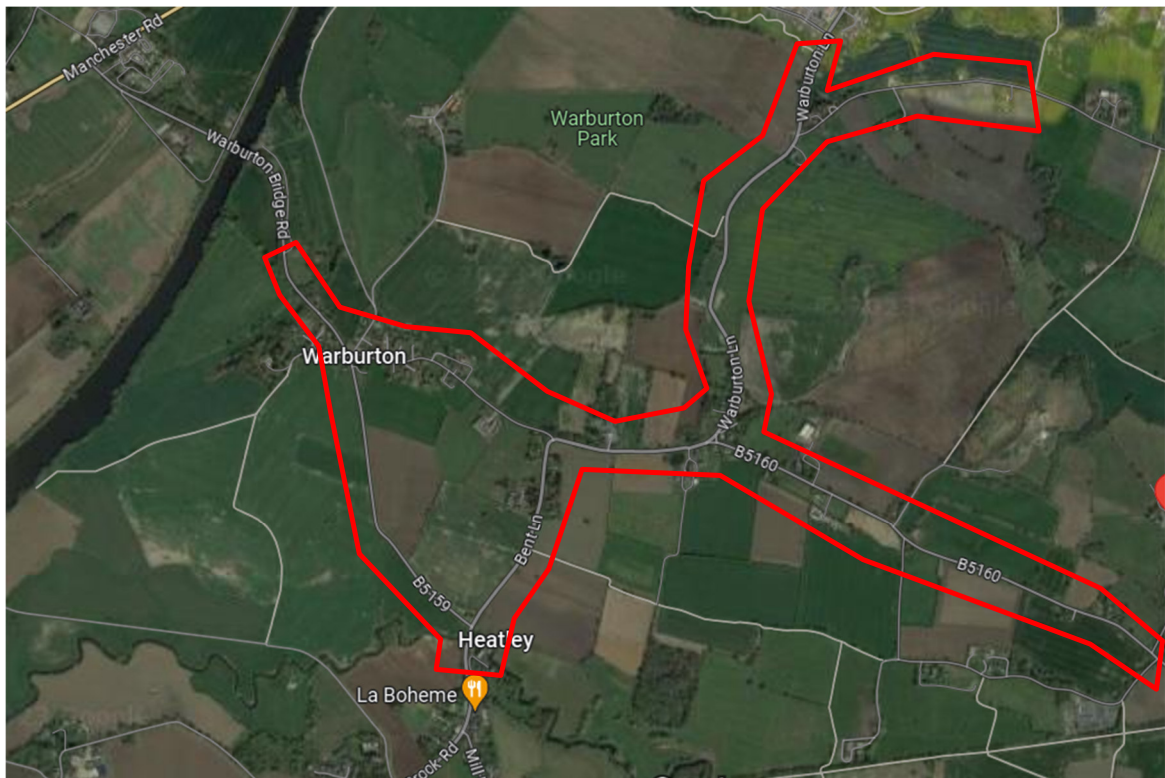
General

- 2.1 This Chapter provides a detailed description of the location of the site, the local highway network and the road safety record.

Site Location / Composition

- 2.2 It was agreed with Warburton Parish Council that the extent of the traffic and transport review would include Warburton as far as the toll booth on Bridge Road, as far as the Partington signage to the north on Warburton Lane, to include Moss Lane and Dunham Lane to the east and as far as the bridge and the Warburton boundary to the south.
- 2.3 **Figure 2.1** below shows the area reviewed.

Figure 2.1 – Site Location Plan – Wider View



Local Highway Network

A6144 Mill Lane / Bent Lane / Paddock Lane / Warburton Lane

- 2.4 A plan showing the existing road network including existing traffic calming is included at **Appendix 1**.
- 2.5 The A6144 Mill Lane is a single carriageway road subject to a 40mph speed limit effective north of Warburton bridge over the River Bollin which is located immediately south of the priority junction with the B5159 Townfield Lane. South of this point heading into Heatley, the A6144 is subject to a 30mph speed limit which is enforced by speed cameras.

Figure 2.2 – View northbound on A6144 entering Warburton



- 2.6 Within Heatley, Mill Lane benefits from regularly spaced street lighting columns and footways on either side of the road. The footway on the eastern side terminates at Old Mill Close and continues on the western side of Bent Lane and along the northern side of Paddock Lane for circa 1km before switching to the southern side of Paddock Lane 130 meters west of the junction between Paddock Lane and Dunham Road.

- 2.7 North of the B5159 Townfield Lane the A6144 Mill Lane becomes Bent Lane, subject to a 40mph speed limit and continuing north for 600m before becoming Paddock Lane. As outlined above footways are present along the western side of Bent Lane.
- 2.8 The Paddock Lane section of the A6144 section runs in a roughly east-west direction for 400m between Bent Lane and Warburton Lane in which the 40mph speed limit continues. Footway is present along the northern side of the A6144 Paddock Lane from the priority junction with Paddock Lane for around 300 meters after which dropped kerbing is provided for pedestrians to cross to the southern side of the road where the footway begins and continues albeit narrow, all the way into Partington. Parking Restrictions in the form of double yellow lines run along both sides of the road for 500 meters beginning outside the Saracens Head and continuing north along Warburton Lane.
- 2.9 At the junction with the B5160 Dunham Road, the A6144 Paddock Lane becomes Warburton Lane, the 40mph speed limit continues for circa 1.3km before reducing to 30mph upon entering the built-up area of Partington. At the bridge over Red Brook, footway begins on the western side of the A6144 meaning that footways are provided along both sides of the carriageway once again.
- 2.10 Overall, the A6144 within the study area has 4 different road names and extends for 2.4km between Heatley and Partington, during which it is subject to a 40mph speed restriction. Street lighting columns are present along the entirety of the road section reviewed and footways are provided, although narrow along at least one side of the carriageway for the majority of the route.

Moss Lane

- 2.11 Moss Lane is located approximately 260m south of the gateway to Partington. It meets Warburton Lane at a simple priority junction, within the 40mph limit. The access is located on the outside of a bend and visibility from the access is adequate. Forward visibility of right-turners for northbound traffic is slightly substandard.
- 2.12 Moss Lane itself has a speed limit of 60mph and is of variable width, with some sections being too narrow for two cars to pass. Moss Lane is also a bus route. There is a footway for short section as far as Top Park Close.

Dunham Road

- 2.13 The B5160 Dunham Road is a single carriageway road running northwest – southeast from the A6144 Paddock Lane / Warburton Lane simple priority junction to the junction with Barns Lane in Dunham Massey where the B5160 become Paddock Lane. The speed limit varies along Dunham Road. Starting at the junction with the A6144 heading east for around 160 metres the B5160 is subject to a 40mph speed limit. After which it increases to the national speed limit, 60mph. The national speed limit is in effect for roughly 1.3km before reducing to 40mph beyond the priority junctions with Gorse Lane and Carrgreen Lane for around 180 metres before reducing to 30mph upon entry to Dunham Massey.
- 2.14 A footway is provided infrequently on the southern side of Dunham Road, generally outside the residences at the western end of the road and also at the Gorse Lane bus stop. Footway is not provided along the northern side of the carriageway and street lighting is not present along Dunham Road.

Carrgreen Lane

- 2.15 Carrgreen Lane is a single-track road on the south side of Dunham Road connecting at both ends to Dunham Road. Neither footways or street lighting columns are provided along Carrgreen Lane. The road provides access to farms, dwellings and the National Grid Warburton site. The narrow lane is frequently used by large farming and Heavy Goods Vehicles.

Paddock Lane

- 2.16 Paddock Lane is the main road through the village of Warburton, extending for 700m between Bridge Road / B5159 Townfield Lane at a simple priority junction in the west and the A6144 Bent Lane / Paddock Lane (also a simple priority junction) in the east. Paddock Lane provides access to several residential roads. The entire road is subject to a 30mph speed limit and benefits from regularly spaced street lighting columns. Footways are provided on the northern side of the carriageway along its entirety. Double yellow lines are present on both sides of the road at the junction with the A6144 extending back up Paddock Lane for around 120 metres. There are bus stops with shelters located in the village on both sides of the road.

Townfield Lane

- 2.17 The B5159 Townfield Lane is a single carriageway road running from a priority junction with the A6144 Mill Lane/Bent Lane in the south, until it becomes Bridge Road at the junction with

Paddock Lane and Wigsey Lane. Townfield Lane has a 40mph speed limit which reduces to 30mph upon entry to the built-up area of Warburton, circa 60 metres south of the Paddock Lane junction. Street lighting columns are present along the distance of Townfield Lane, and footway is provided along the western side of the carriageway only.

Figure 2.3 – View north along Townfield Lane



Bridge Road

- 2.18 Bridge Road continues north from the terminus of Townfield Lane, across Warburton toll bridge to the A57 Manchester Road. Approximately 150m north of the junction with Paddock Lane there is a centrally located toll booth for access onto Warburton Bridge. The Speed limit is 30mph and footways run along the western side of the road up to the toll booth. No street lighting columns are present nor is a footway along the eastern carriageway.

Public Rights of Way

- 2.19 The figure below shows footpaths and bridleways that are present in and around Warburton. These routes provide connections into Partington to the north-east of Warburton, and Lymm to the south of Warburton.

Figure 2.4 – PROW Map



Source: FootPathMap.co.uk

- 2.20 There is a footpath present approximately 160m north-east from the Park Road/Paddock Lane junction. This footpath runs for approximately 300m north east along Park Road, before heading east along an unnamed path until it reaches Warburton Lane. The footpath emerges directly onto Warburton Lane and there is no pedestrian crossing present to reach the footway opposite.
- 2.21 Another footpath is present to the east of Bent Lane, located approximately 350m south of the Paddock Lane/Bent Lane junction. This emerges directly onto Bent Lane, with no footway

or crossing facility to reach the footway on the opposite side. The footpath is accessed via an accessible kissing gate off Bent Lane, and runs south east across a number of fields until it meets Carrgreen Lane. It then runs in a south west direction across the Trans Pennine Trail Cycle Route, continuing over the River Bollin, until it ends at a passing place off Wet Gate Lane in Lymm.

Figure 2.5 – Footpath off Bent Lane



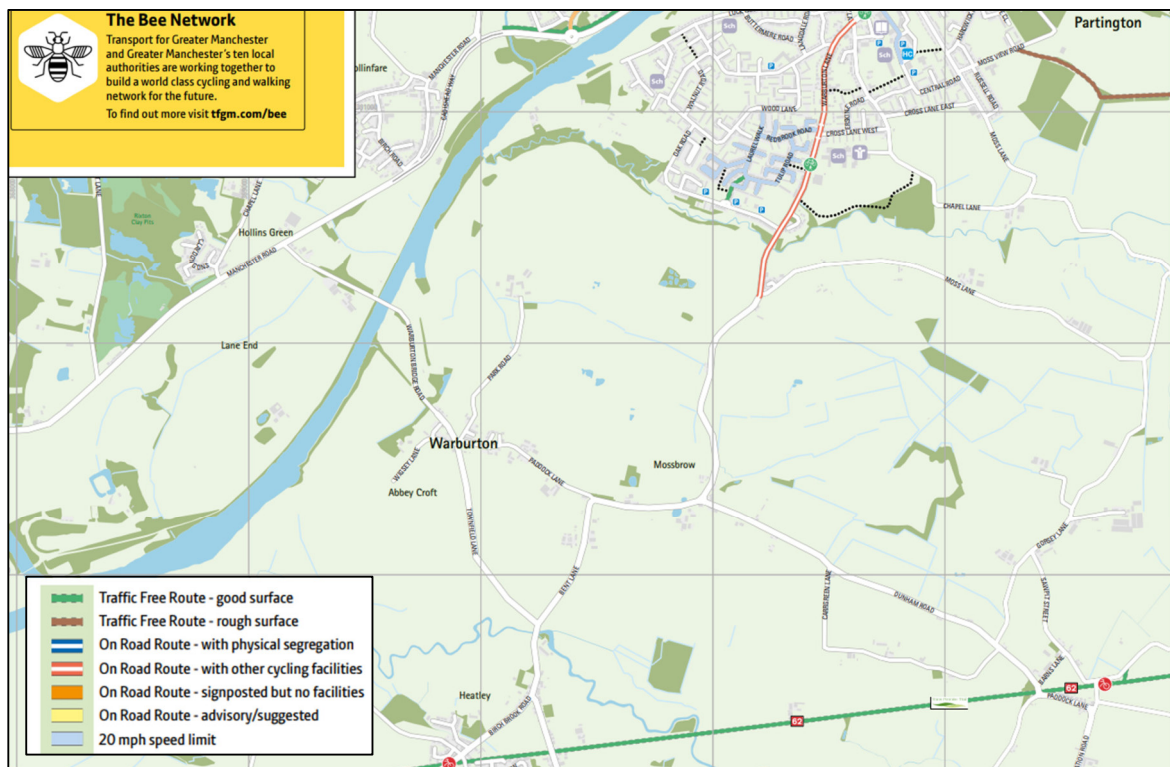
- 2.22 Another footpath is present off Carrgreen Lane, located opposite Higher Carrgreen Farm. This footpath runs across several fields in a south east direction for approximately 800m until it meets Barns Lane, where it ends at the edge of the road.
- 2.23 There is a footpath present off Dunham Road, located approximately 600m south east of the Paddock Lane/Dunham Road junction. The footpath is accessed via a road and runs for approximately 1.4km in a north east direction, until it meets Moss Lane emerging as a gated farm track. Approximately 800m along its route from the point of access off Dunham Road, another footpath can be accessed which runs south east to meet Moss Hall Farm, ending on Gorsey Lane. Another gate is present here.

- 2.24 To the north east of Warburton, there is a footpath located off Moss Lane approximately 750m east of the Warburton Lane/Moss Lane junction. the footpath is accessed from the edge of the road and runs north until it meets Chapel Lane, providing access into Partington.
- 2.25 There appear to be no pedestrian crossings present at any of the access points to the footpaths described above.
- 2.26 There is a public bridleway present along Bollin Valley Way, accessed via a gate to the west of Park Road. The bridleway runs for approximately 1.9km until it meets Lock Lane to the north east of Warburton, providing access into Partington.

Cycle Routes

- 2.27 The figure below shows local cycle routes in and around Warburton.

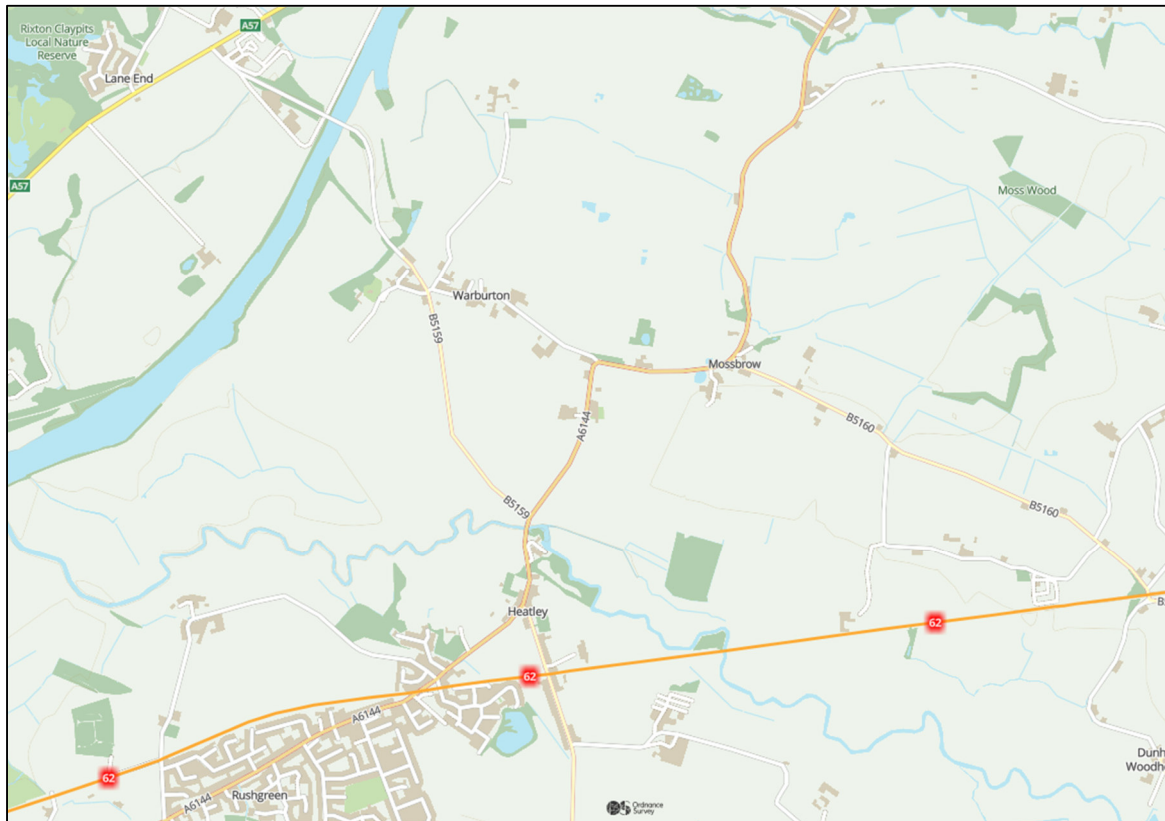
Figure 2.6 – Local Cycle Routes



Source : TfGM

- 2.28 There is an on-road cycle route located approximately 250m north from the Warburton Lane/Moss Lane junction. This route runs for approximately 1km north into Partington along Warburton Lane until it reaches Partington Methodist Church.

Figure 2.7 – National Cycle Network Map



Source: Sustrans

- 2.29 National Cycle Route 62 runs south of Warburton can be accessed approximately 260m south of the Birch Brook Road/Mill Lane junction. It runs for approximately 335km from Fleetwood in Lancashire to Selby in North Yorkshire. NCR 62 forms part of the TransPennine Trail, which is a long-distance path running from coast to coast across northern England and is a popular route for pedestrians, cyclists and horse riders.

Bus Accessibility

- 2.30 There are two bus stops ('Wigsey Lane') located on the B5159 Townfield Lane, approximately 50m south of the junction with Paddock Lane and Wigsey Lane. Both bus stops can be accessed via the footways on either side of the road. No shelters are provided. The CAT5 bus service runs from this stop at an average frequency of 60 minutes between Monday-Saturday. No Sunday service is provided.
- 2.31 Two bus stops ('Egerton Avenue') are located on Paddock Lane, approximately 120m east of the Bridge Road/ B5159 Townfield Lane. Although both bus stops have shelters, there is no footway present along the southern side of the carriageway. The CAT5 bus service can be accessed from these stops.

- 2.32 Another two bus stops ('Bent Lane') are located further along Paddock Lane on the northern and southern side of the carriageway, approximately 50m west of the junction with Bent Lane. Neither of these bus stops have shelters, and footways are still only present here on the northern side of Paddock Lane. The CAT5 bus service calls at this stop.
- 2.33 There is one bus stop ('Saracens Head') present on the northern side of Paddock Lane, approximately 120m east of Bent Lane, as the road becomes part of the A6144. The bus stop is not sheltered but can be accessed via the footway provided along the northern side of the carriageway. The CAT5 bus service also runs from this stop.
- 2.34 There is a bus stop ('St Werburgh's Church) located on the eastern side of Bent Lane, approximately 180m to the south of the Paddock Lane junction. There is a footway present on both sides of the carriageway here, however the footway on the eastern side only extends for circa 20m either side of the bus stop. There is no bus shelter provided at this stop. The CAT5 bus service can be accessed here.
- 2.35 There are two bus stops ('The Beeches') located on Dunham Road, approximately 50m east of the A6144 Paddock Lane/Warburton Lane priority junction, providing services running eastbound and westbound along the carriageway. Neither of the bus stops are sheltered and there is no footway present along the northern side of the road. There are also no street lighting columns present. The 280 bus service runs from this stop at an average frequency of 60 minutes between Monday-Saturday. No Sunday service is provided.
- 2.36 There is a bus stop located on the eastern side of the A6144 Warburton Lane, approximately 50m north of the Moss Lane junction. The bus stop can be accessed via the footway which is present along the eastern side of the carriageway. No bus shelter is provided. The 247 bus service runs from this stop every 30 minutes between Monday-Saturday, and every 60 minutes on Sundays. The CAT5 and 280 bus services also run from this stop every 60 minutes between Monday-Saturday.
- 2.37 **Table 2.1** below provides an overview of the bus services available at the aforementioned bus stops, along with the route and an average frequency for service intervals across the week.

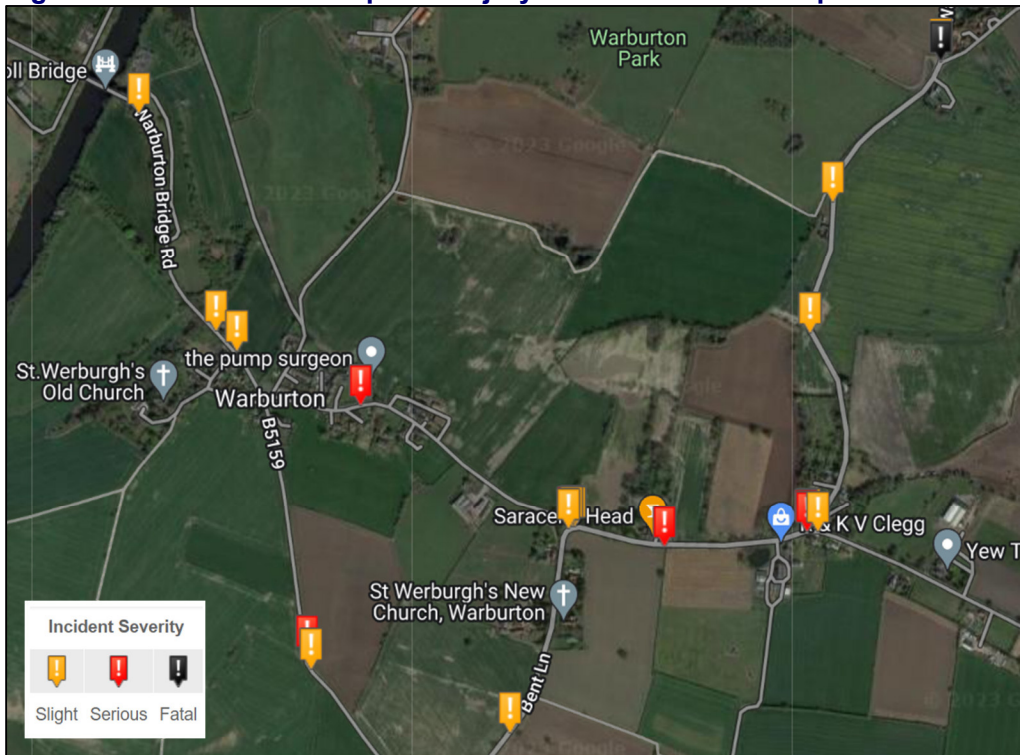
Table 2.1- Bus services in Warburton

Service No.	Route	M-F		Sat		Sun	
		Start-End	Average Freq.	Start-End	Average Freq.	Start-End	Average Freq.
CAT5	Sale – Warrington	07:01-23:07	60 mins	08:16-23:07	60 mins	-	-
280	Partington – Altrincham	06:51-18:18	60 mins	07:05-18:05	60 mins	-	-
247	The Trafford Centre – Altrincham	06:01-23:04	30 mins	07:03-23:04	30 mins	09:02-20:01	60 mins

3.0 ROAD SAFETY RECORD

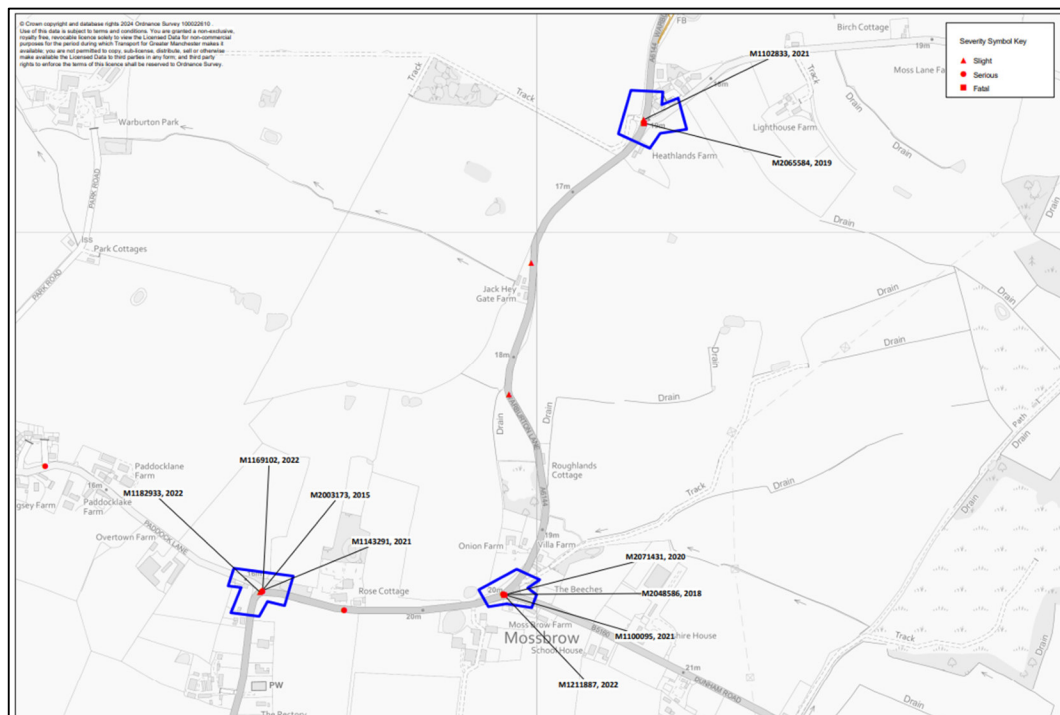
- 3.1 The National Planning Policy Guidance (NPPG) states that, *“Critical locations on the road network with poor accident records should be identified. This is to determine if the proposed development will exacerbate existing problems or, if proposed, whether highway mitigation works or traffic management measures will help to alleviate the problems”*.
- 3.2 Ordinarily, either 3 or 5 years’ worth of accident data would be reviewed as part of an accident assessment. However, given the amount of additional traffic is likely to come forward due to committed development (this refers to developments which have consent) and proposed development in the area, it is useful to see whether there are any patterns to accidents over a longer period of time as the traffic growth may increase the propensity for these types of accidents to occur.
- 3.3 The latest available 10-year period of personal injury accident data for the local area has been obtained from Crashmap for the period between 1st January 2013 and 31st December 2022 to establish any particular accident patterns. Where patterns have been identified, further detailed accident records have been obtained from Transport for Greater Manchester (TfGM) which cover the period between 1st January 2014 and 31st December 2023 . The injuries caused by the accidents are classified as ‘slight’, ‘serious’ or ‘fatal’, with the number of accidents at the key locations in the study area summarised below.
- 3.4 The location and severity of any accidents within the study area during this period, are shown in **Figure 3.1** (Crashmap) and **Figure 3.2** (TfGM) below. Both the accident reports can be found in **Appendix 2**.

Figure 3.1 – Overview of Reported Injury Accidents - Crashmap



Source: Crashmap

Figure 3.2- Detailed accident information locations



Source: TfGM

3.5 The figures and tables below present a summary of the accidents and their locations in the study area shown above during the most recently available 10-year period. Note the figures set out in in blue in the tables below are those where further information has been request from Crashmap.

[Paddock Lane/Bent Lane](#)

Figure 3.3 – Paddock Lane/Bent Lane- Crashmap

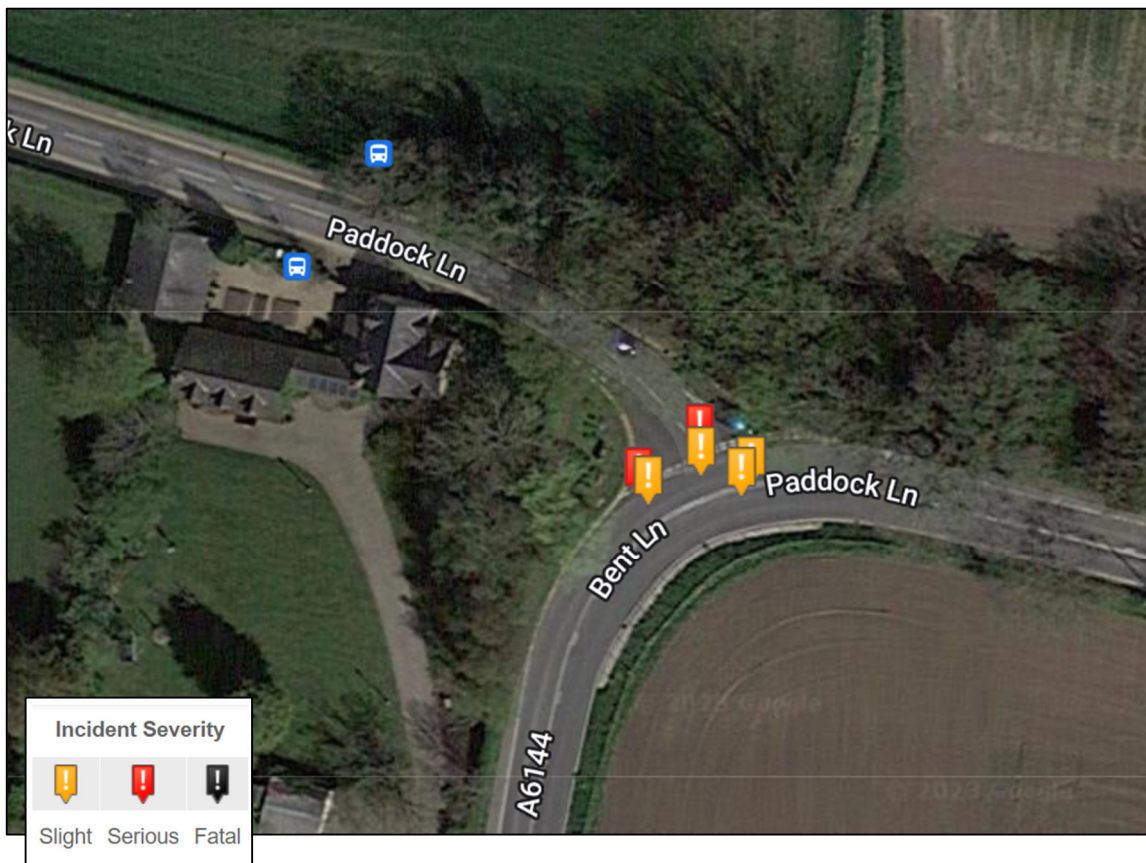
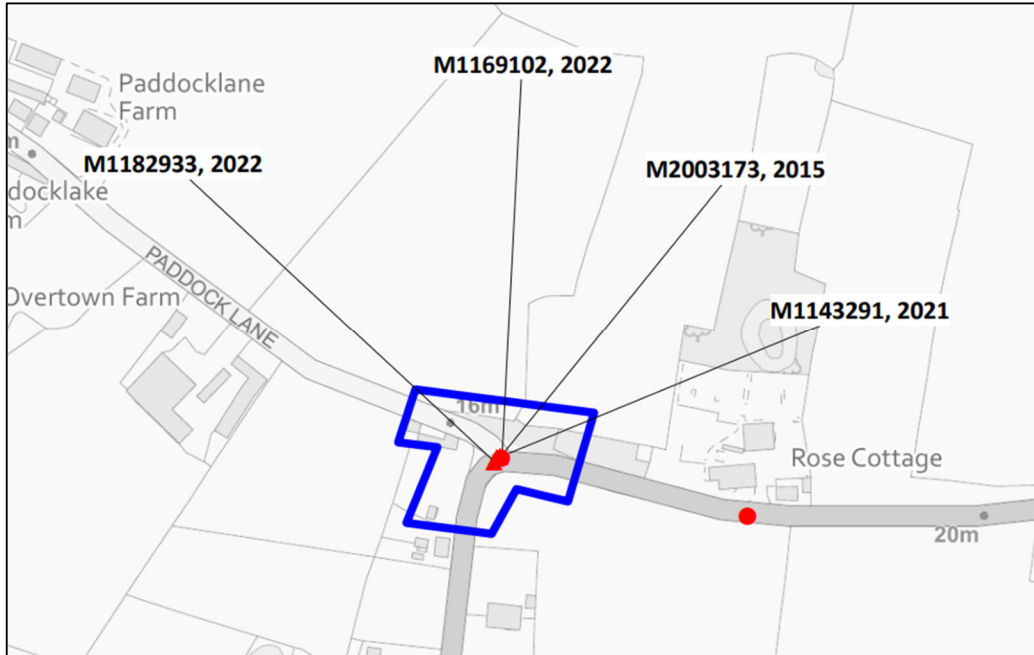


Figure 3.4- TfGM data



Source: TfGM

Table 3.1- Accident Summary

Paddock Lane/Bent Lane								
Reference	Date	Accident Severity	Conditions	Number of Vehicles	Vehicle Type	Driver Age Band	Number of Casualties	Casualty Type
1	5 th January 2013	Slight	Wet/damp, daylight	2	Van and pedal cycle	26-35; 46-55	1	Cyclist
2	2 nd May 2013	Serious	Dry, daylight	2	Car and pedal cycle	66-75; 46-55	1	Cyclist
M2003173	30 th June 2015	Slight	Dry, daylight	2	Car and pedal cycle	26-35; 46-55	1	Cyclist
M1143291	11 th December 2021	Slight	Wet, dark, rain	2	Car and pedal cycle	26-35; 46-55	1	Cyclist
M1169102	22 nd April 2022	Serious	Dry, daylight	2	Car and motorcycle	46-55; 66-75	1	Motorcyclist
M1182933	29 th April 2022	Slight	Dry, daylight	2	Car and pedal cycle	26-35; 26-35	1	Cyclist

3.6 The Paddock Lane/Bent Lane junction shows a cluster of incidents which could present recurring highway safety problems. Six accidents were recorded at the Paddock Lane/Bent Lane junction over the 10-year period, as highlighted in the figure above. Four of these were classed as slight in severity, whilst the remaining two were classed as serious in severity. All of the accidents involved vulnerable road users, with 5 cyclists and one motorcyclist injured.

3.7 The most recent serious incident occurred on 22nd April 2022. It involved a motorcycle travelling east on Paddock Lane along the right hand bend, and a car travelling west on Paddock Lane. The car was turning right onto Paddock Lane and across the path of the motorcycle, when a head on collision occurred as the front of the car collided with the offside of the motorcycle. The rider of the motorcycle suffered serious injuries. The second serious incident occurred on 2nd May 2013 and led to a cyclist sustaining serious injuries after experiencing a head on collision with a car turning right from Paddock Lane.

- 3.8 The most recent slight incident occurred on 29th April 2022, just 7 days after the serious incident. This involved a pedal cycle travelling east on Bent Lane along the right hand bend, and a car travelling south on Paddock Lane reaching the left hand bend, until the offside of the pedal cycle collided with the front of the car. The cyclist suffered slight injuries as a result.
- 3.9 Three further slight incidents occurred on 11th December 2021 and 30th June 2015. The more recent of the two involved a head on collision between a cyclist travelling east on Bent Lane along the right hand bend, and a car travelling south east on Paddock Lane. The car was turning right onto Paddock Lane and across the path of the pedal cycle, until a head on collision occurred. This caused the cyclist to sustain slight injuries.
- 3.10 The June 2015 incident involved a car travelling west on Paddock Lane waiting to turn right at the junction with Bent Lane. The car failed to see a cyclist proceeding normally along Bent Lane on the right hand bend, leading to the cyclist sustaining slight injuries as a result of an offside collision.
- 3.11 The remaining incident from 2013 involved a van and a cyclist both proceeding normally along Bent Lane, not on the bend. The cyclist suffered slight injuries as a result of a nearside collision.
- 3.12 There is a clearly a pattern of accidents involving right-turners from A6144 Paddock Lane onto Paddock Lane colliding with cyclists (and motorcyclists) due to poor visibility/risk taking due to the proximity of the bend restricting forward visibility and no right-turn lane which would allow cars to wait safely until they were sure the road was clear. There are also some issues with head-on collisions, which may be as a result of vehicles taking the bend too fast and encroaching into oncoming traffic.

[Paddock Lane/Dunham Road](#)

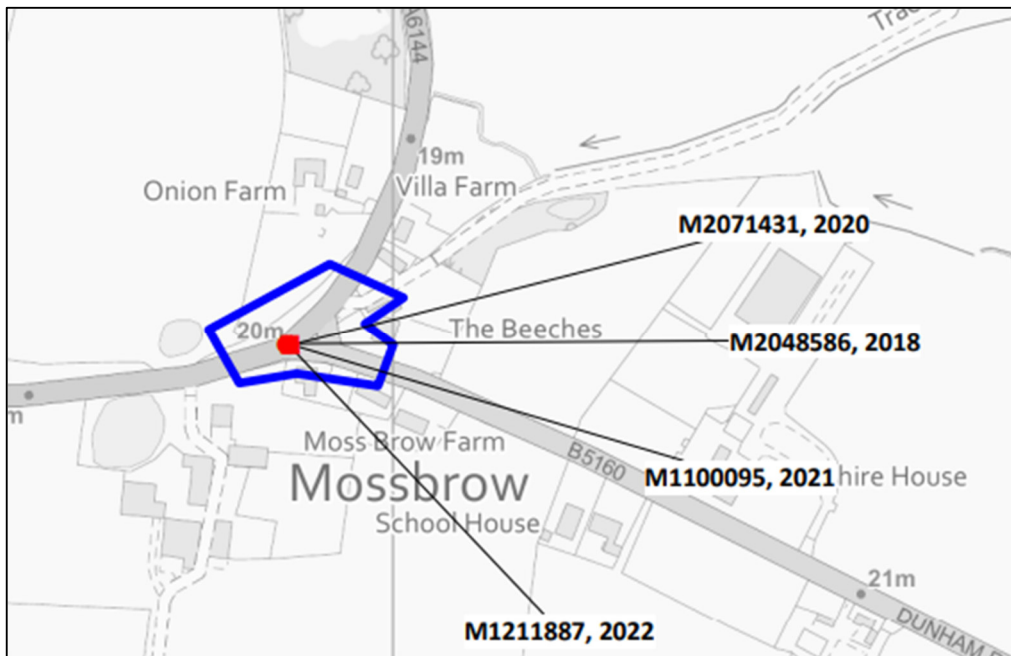
- 3.13 As per the above junction, further investigations have taken place to get more detailed information about collisions occurring at the junction of A6144 Paddock lane/Dunham Road.

Figure 3.5 – Paddock Lane/Dunham Road- Crashmap



Source:Crashmap

Figure 3.6- detailed Accidents from TfGM



Source: TfGM

3.14 The Paddock Lane/Dunham Road junction also highlights a cluster of incidents which could present recurring highway safety problems. Six accidents were recorded at the Paddock Lane/Dunham Road junction over the 10-year period, as highlighted in the figure above. One of these was classed as fatal in severity, two were classed as serious, and the remaining three classed as slight (apart from serious for the driver of the car and one passenger in the LGV, and slight for another passenger in the LGV).

Table 3.2- Paddock Lane/ Dunham Road accident data summary

Paddock Lane/Dunham Road								
Reference	Date	Accident Severity	Conditions	Number of Vehicles	Vehicle Type	Driver Age Band	Number of Casualties	Casualty Type
1	19 th March 2013	Serious	Dry, daylight	2	Two cars	36-45; 46-55	2	Both drivers
2	8 th July 2013	Slight	Dry, daylight	2	Two cars	36-45; 56-65	3	Both drivers and one passenger
M2048586	28 th September 2018	Slight	Dry, dark	2	Two cars	16-20; 46-55	2	Both drivers
M2071431	25 th May 2020	Fatal	Dry, daylight	2	Car and pedal cycle	66-75; 36-45	1	Cyclist
M1100095	20 th September 2021	Slight	Dry, daylight	2	Two cars	26-35; 56-65	2	Both drivers
M1211887	23 rd August 2022	Serious / Slight	Dry, daylight	2	Van and car	36-45; 36-45	3	Driver of car; two passengers in the LGV

3.15 The fatal incident took place on 25th May 2020 and involved a pedal cycle travelling west on Paddock Lane along the right hand bend, and a car travelling north east on Paddock Lane. The car was turning right onto Dunham Road when a rear-end collision occurred as the car collided into the rear of the pedal cycle, sadly resulting in the death of the cyclist.

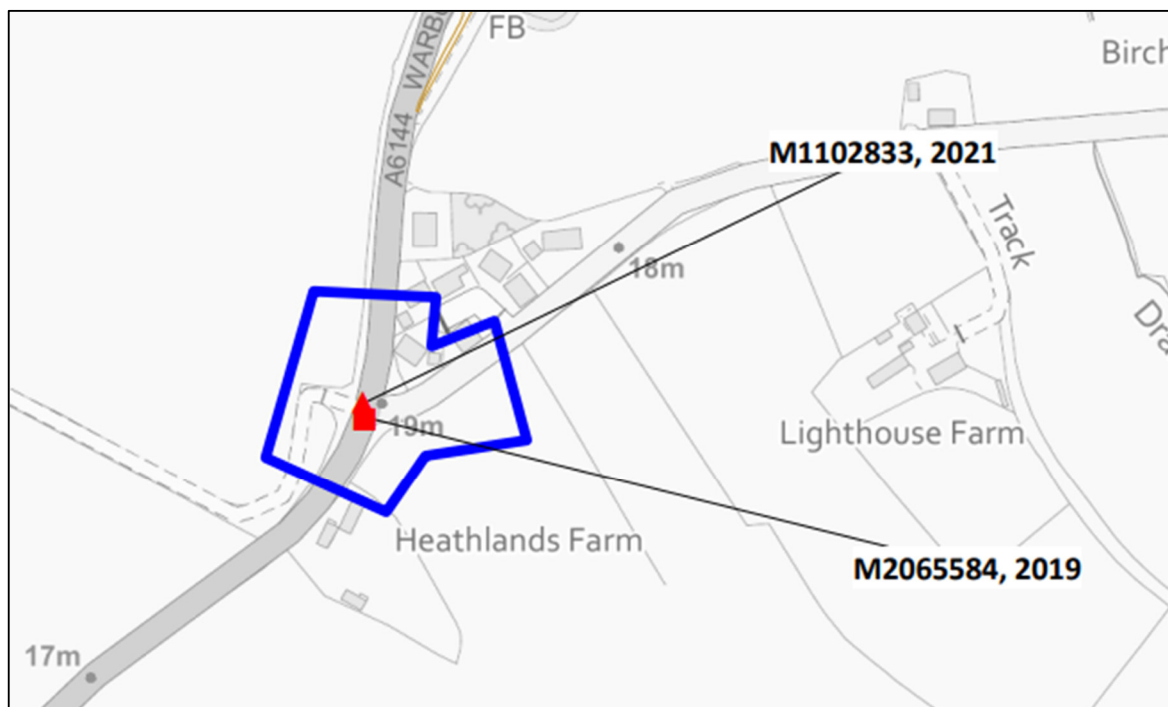
3.16 The most recent serious incident occurred on 23rd August 2022. This involved a car travelling west on Warburton Lane along the right hand bend and an LGV travelling east on Paddock

Lane. The LGV was turning right on Dunham Road and across the path of the car, when a head on collision occurred. This resulted in serious injuries for the driver of the car, as well as serious and slight injuries for two of the passengers in the LGV.

- 3.17 The other serious incident occurred on 19th March 2013 and involved a head on collision between two cars as one car was turning right off Paddock Lane, and the other car was proceeding normally on the right hand bend. Both drivers sustained serious injuries as a result.
- 3.18 Another head on collision occurred between two cars on 20th September 2021. This involved car A travelling west on Paddock Lane along the right hand bend, and car B travelling north east on Paddock Lane. Car B was turning right onto Dunham Road and across the path of car A when a head on collision occurred. This led to slight injuries for both drivers.
- 3.19 The two remaining incident occurred on 28th September 2018. and 8th July 2013. The more recent of the two incidents involved one car travelling north east on Warburton Lane which then turned right onto Dunham Road and across the path of another car, which was travelling south west on Warburton Lane. This led to a head on collision and resulted in slight injuries for both drivers. The July 2013 incident involved a head on collision between a car turning right off Dunham Road and a car proceeding eastbound on Dunham Road on the right hand bend. This resulted in slight injuries for both drivers and one of the passengers.
- 3.20 In the space of 4 years, between 2018 and 2022 there have been four accidents involving right-turners into Dunham Road. Of these, there has been one fatal and two people seriously injured.
- 3.21 Although the TfGM accidents were stated to include 2023, none are showing at any of the three junctions. Two accidents have been recorded at this junction by the Parish Council, in June and September 2023. These apparently resulted in serious injuries (i.e broken bones) however it is not known the vehicle movements in the lead up to each collision.
- 3.22 The majority of the officially recorded accidents have again been as a result of forward visibility for right-turners from A6144 Paddock Lane onto Dunham Road.

Warburton Lane/Moss Lane

Figure 3.7 – Warburton Lane/Moss Lane



Source: TfGM

Table 3.3- Accident Summary at Warburton lane/Moss Lane

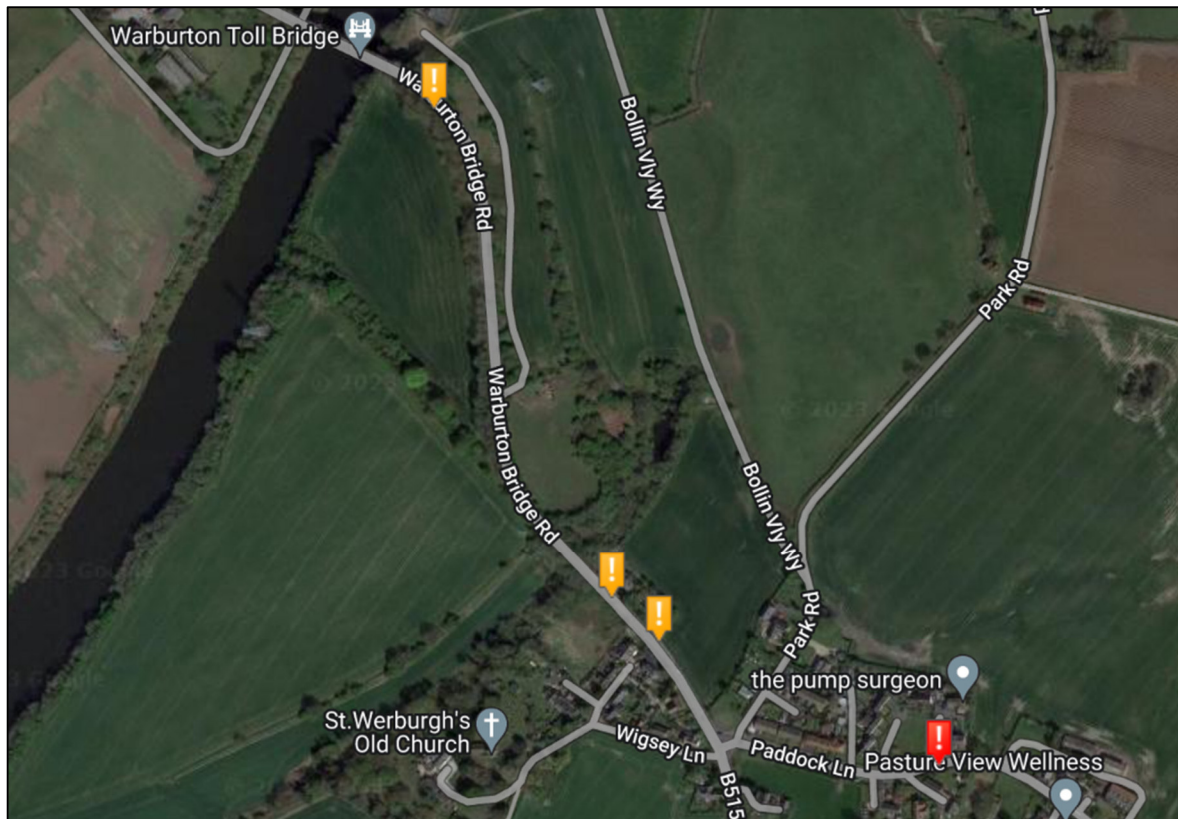
Warburton Lane/Moss Lane								
Reference	Date	Accident Severity	Conditions	Number of Vehicles	Vehicle Type	Driver Age Band	Number of Casualties	Casualty Type
M2065584	11 th December 2019	Fatal	Frost/ice, dark	1	Car	26-35	2	Passenger; driver
M1102833	20 th October 2021	Slight	Wet/damp, daylight	2	Two cars	26-35; 36-45	1	Driver (age 26-35)

3.23 A fatality occurred at the Warburton Lane/Moss Lane junction on the 11th December 2019. This involved a car travelling south west on Warburton Lane reaching the right hand bend. The car then lost control due to a slippery road and collided with a metal lamppost and a tree. Sadly, this resulted in the death of a passenger, and the driver sustained serious injuries.

- 3.24 The slight incident occurred on the 20th October 2021 and involved two cars travelling north on Warburton Lane reaching the left hand bend. One car was waiting to turn right onto Moss Lane, when the other car collided into the rear end of it as it was travelling behind. This resulted in slight injuries for the driver of the car that was waiting to turn right.
- 3.25 The following personal injury accident data has been obtained solely from CrashMap for the period between 1st January 2013 and 31st December 2022 to establish any particular accident patterns outside of the three junctions that have been examined above.

Bridge Road

Figure 3.8 – Bridge Road



Source: CrashMap

Table 3.4- Accident summary on Bridge Road

Bridge Road								
#	Date	Accident Severity	Conditions	Number of Vehicles	Vehicle Type	Driver Age Band	Number of Casualties	Casualty Type
1	2 nd June 2013	Slight	Dry, daylight	2	Car and motorcycle	21-25; 36-45	1	Motorcyclist
2	26 th August 2017	Slight	Dry, daylight	1	Pedal cycle	56-65	1	Cyclist
3	23 rd June 2018	Slight	Dry, daylight	2	Car and pedal cycle	36-45; 46-55	1	Cyclist

3.26 Three slight incidents occurred along Bridge Road over the most recently available 10-year period. The earliest of the three occurred on 2nd June 2013 to the north of Bridge Road, immediately prior to the bridge. This resulted in a head on collision between a car and a motorcycle that were both driving normally along Bridge Road, not on the bend. The motorcyclist sustained slight injuries as a result.

3.27 The other two incidents occurred further along Bridge Road, the first of which occurred on 26th August 2017 and involved a cyclist sustaining slight injuries. The cyclist was proceeding normally along the carriageway with no other vehicles involved nor did they hit an object. No further details have been provided.

3.28 The remaining incident occurred at the toll booth on 23rd June 2018 and led to a head on collision between a car and a pedal cycle that were both proceeding normally along the road. The cyclist hit a refuge on the carriageway and sustained slight injuries.

Paddock Lane

Figure 3.9 – Paddock Lane



Source: CrashMap

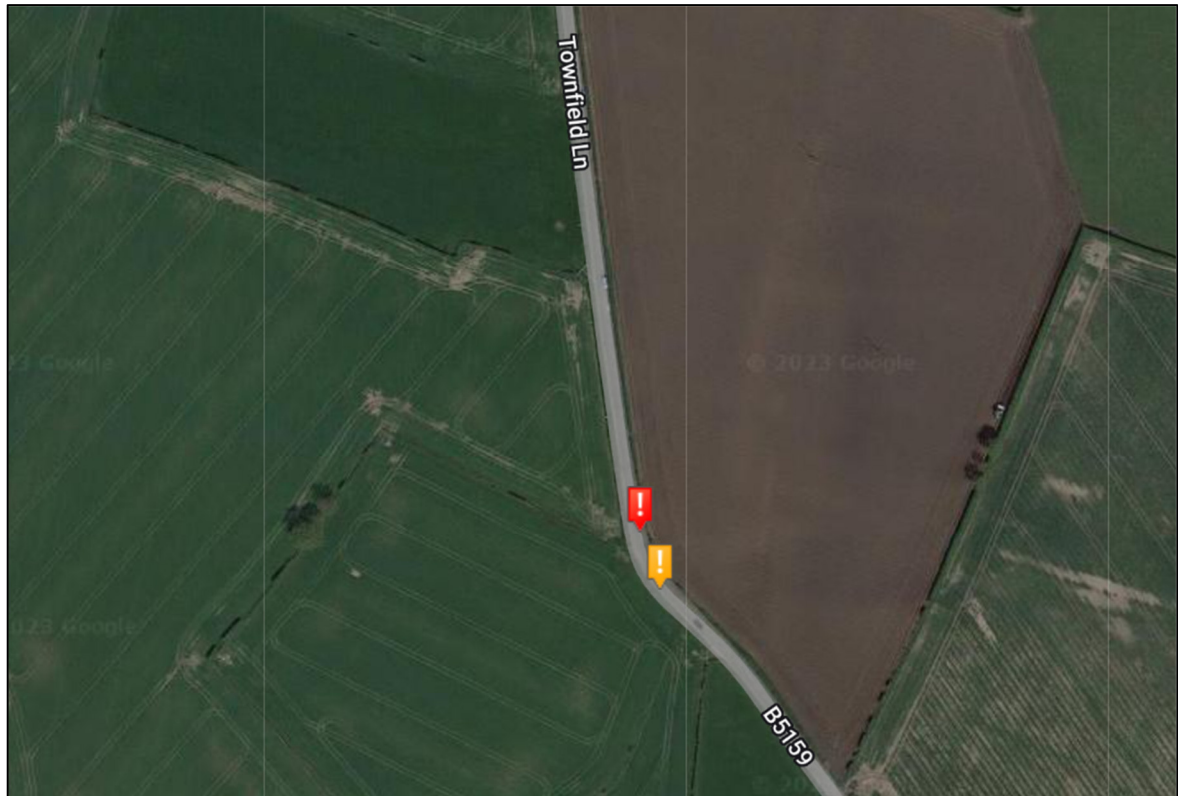
Table 3.5- Accident Summary on Paddock Lane

Paddock Lane								
#	Date	Accident Severity	Conditions	Number of Vehicles	Vehicle Type	Driver Age Band	No. of Casualties	Casualty Type
1	17 th October 2014	Serious	Wet/damp, dark	2	Two cars	36-45; 36-45	2	Serious injuries for passenger, slight injuries for driver of other car

3.29 A serious incident occurred along Paddock Lane on the 17th October 2014, opposite the access to Werburgh Close. The incident involved a nearside collision between two cars, one of which was proceeding normally along the right hand bend, and the other passing the car on its nearside. This led to the passenger of the car passing on the nearside sustaining serious injuries, and the driver proceeding on the right hand bend sustaining slight injuries.

Townfield Lane

Figure 3.10 – Townfield Lane



Source: CrashMap

Table 3.6- Accident Summary on Townfield Lane

Townfield Lane								
#	Date	Accident Severity	Conditions	Number of Vehicles	Vehicle Type	Driver Age Band	Number of Casualties	Casualty Type
1	11 th August 2014	Slight	Wet/damp, daylight	2	Two cars	46-55; 56-65	1	Driver (age 56-65)
2	27 th September 2019	Serious	Wet/damp, daylight	1	Car	46-55	1	Driver

3.30 Two incidents occurred on the bend along Townfield Lane, both in wet or damp conditions. The earlier of the two occurred on 11th August 2014 and involved two cars proceeding along

the road, one of which was on the left hand bend, and the other on the right hand bend. This resulted in the car that was travelling southbound colliding with the other car's offside. The driver of the car on the right hand bend sustained slight injuries as a result.

- 3.31 The other incident which occurred on 27th September 2019 involved only one vehicle and resulted in the driver sustaining serious injuries. The car was proceeding normally along the carriageway, not on a bend, with no other vehicles involved nor did they hit an object. No further details have been provided.

[Paddock Lane](#)

Figure 3.11 – Access to Saracens Head



Source: CrashMap

Table 3.7- Accident Summary on Paddock Lane

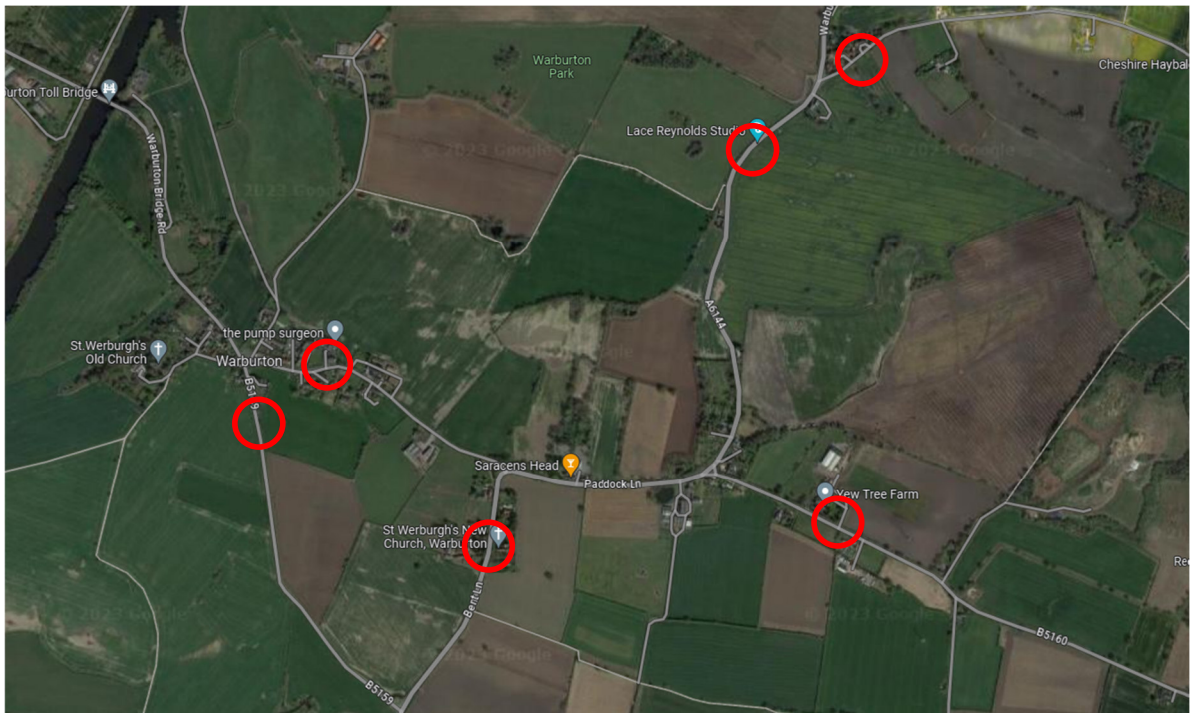
Access to Saracens Head								
#	Date	Accident Severity	Conditions	Number of Vehicles	Vehicle Type	Driver Age Band	Number of Casualties	Casualty Type
1	22 nd April 2021	Serious	Dry; daylight	3	Two motorcycles and one car	66-75; 46-55; 56-55	3	Serious and slight injuries for both motorcyclists; slight injuries for car passenger

3.32 One incident occurred at the access to Saracens Head on 22nd April 2021. It involved a motorcycle which was travelling westbound and slowing down on Paddock Lane, before it collided into the rear-end of a car that was turning right out of the access. Another motorcycle was also involved that was travelling westbound along Paddock Lane ahead of the two vehicles, which the car collided into the rear end of. The motorcyclist at the back sustained serious injuries, whilst the driver of the car and the other motorcyclist sustained slight injuries.

4.0 TRAFFIC FLOWS

- 4.1 Six ATC Surveys were carried out for a period of 7 days to investigate the current volume of traffic and speeds in Warburton. The ATC data can be found in [Appendix 3](#) along with information on vehicle classifications.
- 4.2 The location of the ATCs are shown in the figure below.

Figure 4.1 – Location of ATCs



Source: Google Maps

- 4.3 The table below summarises the average number of vehicles across a 7-day period travelling along each of the above locations in Warburton during the AM peak hour (08:00-09:00) and the PM peak hour (16:00-17:00). Diagrammatic traffic flows can be found in [Appendix 4](#).

Table 4.1- Average Weekday Peak hour traffic summary

Location		Northbound	Southbound
Warburton Lane	AM (08:00-09:00)	419	321
	PM (16:00-17:00)	420	483
Bent Lane	AM (08:00-09:00)	206	297
	PM (16:00-17:00)	332	249
Townfield lane	AM (08:00-09:00)	117	137
	PM (16:00-17:00)	137	196
Location		Eastbound	Westbound
Dunham Road	AM (08:00-09:00)	233	102
	PM (16:00-17:00)	141	239
Moss Lane	AM (08:00-09:00)	139	63
	PM (16:00-17:00)	66	100
Paddock Lane	AM (08:00-09:00)	164	234
	PM (16:00-17:00)	371	196

4.4 The table below shows the most recent AADT data obtained from the DfT compared against the recent surveyed flows. Annual Average Daily Traffic Flows (AADT) are defined as the total volume of vehicle traffic of a highway or road for a year divided by 365 days. Where these are estimations, they are based on older data that DfT already hold for that particular location.

Table 4.2- Comparison of DfT and SCP AADT flows

Count Point ID	Location	Year	Estimation Method	Direction	DfT Flows	SCP Flows
806352	Paddock Lane	2019	Manual Count	E/B	2663	2404
				W/B	2393	2784
944643	Townfield Lane	2019	Manual Count	N/B	2000	1732
				S/B	1371	1536
27843	Birch Brook Road	2022	Estimation	N/B	3974	3096
				S/B	3969	3106
Note: Birch Brook Road Is located south of Mill Lane and Townfield Lane and SCP flows were recorded on Bent Lane, north of the junction with Townfield Lane						
77864	Warburton Lane	2022	Manual Count	N/B	4294	4859
				S/B	4250	4664

Current vehicle speeds

4.5 The table below summarises the average and 85th percentile speeds recorded across a 7-day period for each of the locations surveyed in Warburton.

Table 4.3- Speed Survey results

Location	Speed Limit where ATC was recorded (mph)	Direction	7-day Average Speed (mph)	7-day 85 th Percentile (mph)
Warburton Lane	40mph	N/B	38	43
		S/B	38	42
Bent Lane	40mph	N/B	36	41
		S/B	37	43
Dunham Road	60mph	E/B	40	47
		W/B	40	47
Note: speed limit decreases to 40mph upon entry into Warburton. ATC recorded 160m south east from speed limit change.				
Moss Lane	60mph	E/B	30	35
		W/B	31	37
Note: no signage coming off main road.				
Paddock Lane	30mph	E/B	37	42
		W/B	30	35
Townfield Lane	40mph	N/B	33	38
		S/B	35	41
Note: speed limit reduces to 30mph upon entry into Warburton.				

5.0 COMMITTED DEVELOPMENT

- 5.1 There is a large amount of committed development in the area arising as a result of the Greater Manchester Places for Everyone Development Plan. This allocates land at New Carrington for approximately 6000 dwellings and 4 million m2 employment development.
- 5.2 In addition there are other committed developments in Partington, Lymm and Hollins Green as well as approved schemes which have been partially been built out. The following section and **Appendix 5**, sets out the predicted level of traffic in the area as a result of committed development. Where developments are partially constructed, predicted traffic flows have been adjusted accordingly.

Schedule of partially complete committed development

5.3 Hall Lane/ Lock Lane – 450 dwellings (approximately 50% occupied)

Proposed transport improvements

- S106 contributions towards Manchester Road/Isherwood Road improvements
- Improvement to Hall Lane/Manchester Road mini roundabout

Limitations on full development coming forward:

- No residential unit shall be occupied unless and until a scheme for improvement works to the Hall Lane /Manchester Road roundabout has been implemented

5.4 Heath Farm Lane – 600 dwellings (approximately 25% occupied, Phase 1 & 2)

Proposed transport improvements

- Improvement to east approach to Isherwood Road/A6144 Manchester Road traffic signal junction
- Improvement to west approach to Isherwood Road/A6144 Manchester Road traffic signal junction

Limitations on full development coming forward:

- Improvement 1 required to mitigate up to 250 dwellings
- Improvement 2 required over 250 dwellings

Schedule of Committed Development

5.5 Carrington Village - 725 dwellings + 46,450m² employment + 929m² retail

Proposed transport improvements

- Improvements to Isherwood Road/A6144 Manchester Road traffic signal junction including the provision of a bus stop lay-by
- Improvement to Carrington Lane/A6144 Manchester Road traffic signal junction

Limitations on full development coming forward

- (a) no more than 100 residential units, (b) or 2,322m² of B1 Office use, (c) or 9,290m² of B2/B8 uses (or a combination of the above) shall be occupied until above works are implemented.

5.6 Common Lane - 43,874m² B1, B2, B8

Proposed transport improvements

- Improvement to Common Lane/A6144 Manchester Road priority T-junction
- Improvement to Isherwood Road/A6144 Manchester Road traffic signal junction including the provision of a bus stop lay-by
- Improvement to Carrington Lane/A6144 Manchester Road traffic signal junction.

Limitations on full development coming forward

- No development until above works have been completed

5.7 Voltage Park (current application) - 62,442m² B1c, B2, B8

Proposed transport improvements

- Improvement required to Isherwood Road/A6144 Manchester Road junction
- Improvement required to Banky Lane/A6144 Carrington Lane junction

Limitations on full development coming forward

- Potentially 50% of development requires no mitigation but full development requires above works to be completed.

- **Rushgreen Road, Lymm- 108 dwellings**

Allocated in the Local Plan as site OS5 and has permission for 108 dwellings (planning ref: 22/41134).

- **Warrington Road, Lymm- 170 dwellings**

Allocated in the Local Plan as site OS4 and has permission for 170 dwellings (planning ref: 13/01074/OUTM).

- **Manchester Road, Hollins Green- 110 dwellings**

Allocated in the Local Plan as site OS3 and has permission for 110 dwellings (planning ref: 23/00660/OUTM).

- 5.8 The overall committed development is summarised in the table below. This is not an exhaustive total of committed development given the number and scale of applications and committed developments within the Carrington, Partington and Lymm areas. The majority of traffic flow calculations for each development shows traffic onto Warburton Road leaving Partington, however traffic is not distributed any further than that junction.
- 5.9 To enable an estimate of additional traffic on Warburton Lane and bent Lane, the base recorded traffic flows have been analysed to establish an approximate distribution. In the AM peak, approximately 45% of all traffic is to/from Paddock Lane and 55% is to/from Bent Lane. In the PM peak hour traffic flows are evenly split with 50% of traffic to/from bent Lane and Paddock Lane. Other developments from Lymm and Hollins Green which have development traffic flows which stop short of Warburton have been distributed as 50/50 (north and west from Lymm and north and south from Hollins Green).

Table 5.1- Summary of Peak Hour committed and surveyed traffic flows

Location		Committed Development		Survey 2023		Total Flows	
		N/B	S/B	N/B	S/B	N/B	S/B
Warburton Lane (n. of Moss Lane)	AM (08:00-09:00)	239	272	419	321	658	593
	PM (16:00-17:00)	191	235	420	483	611	718
Bent Lane (s of Paddock Lane)	AM (08:00-09:00)	98	84	206	297	304	381
	PM (16:00-17:00)	73	62	332	249	405	311
Townfield Lane	AM (08:00-09:00)	43	27	117	137	160	164
	PM (16:00-17:00)	25	38	137	196	162	234
Location		Committed Development		Survey 2023		Total Flows	
		E/B	W/B	E/B	W/B	E/B	W/B
Dunham Road	AM (08:00-09:00)	100	32	233	102	333	134
	PM (16:00-17:00)	37	33	141	239	178	272
Moss Lane	AM (08:00-09:00)	62	63	139	63	201	126
	PM (16:00-17:00)	67	36	66	100	133	136
Paddock Lane	AM (08:00-09:00)	47*	62*	164	234	211	296
	PM (16:00-17:00)	49*	48*	371	196	420	244
(* Note: committed development flows do not extend as far as the junction of Bent Lane/ Paddock Lane, therefore the flows have been split as set out in paragraph 5.9.							

5.10 The analysis undertaken demonstrates that the committed development will generate an additional 239 vehicles travelling northbound along Warburton Lane (north of Moss Lane) in the AM peak hour period (08:00-09:00) and an additional 235 vehicles travelling southbound in the PM peak hour period (16:00-17:00).

- 5.11 Broken down further, this equates to 109 additional two-way trips in the AM peak along Paddock Lane and 97 two-way trips in the PM peak. On Bent Lane, this equates to 182 two-way trips to the AM peak and 135 in the PM peak.

6.0 SUMMARY OF ISSUES IDENTIFIED

6.1 A summary of the issues identified are as follows:

- Footways are narrow and discontinuous, also often only along one side of the carriageway on the roads where they are present;
- Deficiencies in footways where public footpaths start/end;
- Lack of pedestrian crossing facilities, particularly where bus stops exist on both sides of the carriageway;
- Lack of cycle infrastructure;
- Multiple speed limit changes in quick succession, variable between 30 and 60mph;
- Additional future traffic as a result of committed and proposed development in Partington and Carrington will exacerbate existing accident problems and make it more difficult to walk, cycle and cross these roads safely;
- Accident record highlights multiple accidents involving vulnerable road users, with both the Paddock Lane/Dunham Road and Paddock Lane/Bent Lane junctions in particular highlighting clusters of incidents over the past 10 years;
- Problems with HGVs using Carrgreen Lane and meeting other vehicles on single track roads; and
- The recorded 7-day average speed for vehicles travelling eastbound along Paddock Lane exceeds the 30mph speed limit between the Bridge Road/Townfield Lane junction in the west and the A6144 Bent Lane/Paddock Lane in the east.

7.0 TYPICAL RURAL SAFETY MEASURES

- 7.1 According to Sustrans (2004), traffic calming measures on rural roads should be considered where there is a need to reduce the amount of traffic using a road and reduce the speed at which vehicles travel. The following sets out some potential suitable traffic calming and safety measures suitable for rural areas. In this case, it is highly unlikely that traffic flows will be reduced given the limited routes out to the A57 and M6 and given that there are so many committed developments located to the north of the area.

Speed Limits

- 7.2 Reducing vehicle speed is the best way to reduce the frequency and severity of accidents. Reducing the speed limit gives drivers more time to react and adjust their behaviour to suit the situation.
- 7.3 Speed limits vary across the roads in Warburton from 30mph to 60mph. The ATC surveys show that current average speeds vary from between 30mph to 40mph in Warburton. Reducing speed limits will result in a significant decrease in the number and severity of accidents, especially those that involve more vulnerable users such as cyclists and pedestrians.
- 7.4 Changes in speed limits are usually introduced in combination with speed cameras, additional signage and road markings.

Road markings

- 7.5 Using coloured patches with speed limit roundels can have high visual impacts and help to alert drivers of the speed limit, encouraging them to reduce their speed.

Figure 7.1 – Speed Limit Roundels



Source: Google Images

- 7.6 Where possible, cycle lanes should be incorporated into the road network to help designate an exclusive space for cyclists. Cycle lanes also change the ‘feel’ of the road in order to help drivers reduce their speeds.
- 7.7 These markings can be combined with ‘gateway’ signage to advise drivers that they are entering Warburton. Gateway signage includes, dragons teeth markings, speed roundels, other road markings to give a perceived carriageway narrowing and village signs.

Figure 7.2 – Dragons Teeth Markings



Source: Google Images

Signage

- 7.8 Introducing vehicle-activated traffic signs which illuminate when a vehicle is travelling above the speed limit and display safety messages such as 'REDUCE SPEED' can be particularly effective upon the entrance into rural areas or at particular hazards. Some of these are already in place on Warburton Lane.

Figure 7.3 – Vehicle-activated Traffic Signs



Source: Google Images

[Road narrowing \(chicanes, islands, kerb build-outs, footway extensions\)](#)

- 7.9 The use of pedestrian refuges not only provide locations for pedestrians to cross, but also narrow the road and help to reduce the frequency and severity of incidents. Suitable width needs to be retained to ensure vehicles can safely pass cyclists and that emergency vehicles and HGVs can pass through. It's unlikely that there is sufficient width available within the majority of the study area, or pedestrian demand for this solution.

Figure 7.4 – Pedestrian refuge



Source: Google Images

- 7.10 Narrowing the road can also help to introduce new footways and create a traffic priority system. The ability to implement this type of traffic calming is based on capacity, however the traffic flows in the Warburton area are too high for this type of traffic calming to work.

Figure 7.5 – Traffic Priority System



Source: Google Images

- 7.11 Vertical traffic calming such as speed humps and speed tables are not suitable for rural locations with speeds of 40mph or more.

One-way Working

- 7.12 Where highway safety issues arise and there are no alternatives to rectify identified issues, one-way systems can be put in place with a Traffic Regulation Order (TRO) and signage, road-markings as necessary.

8.0 RECOMMENDATIONS

Turning Improvements

8.1 Given the additional level of traffic expected through Warburton, it would be beneficial to introduce right-turn lanes at the following junctions:

- Paddock Lane/Bent Lane/A6144 Paddock Lane
- A6144 Paddock Lane/Warburton Lane/Dunham Road

Justification: The accident record shows that when collisions have occurred, these have all involved vulnerable road users. Vehicle numbers will increase as a result of committed development and even those developments which are not adding to right-turn movements will make existing right- turns more difficult to make safely.

Introducing a right turn pocket/lane would allow vehicles to move out of the running carriageway and wait safely before making the right-turn. It will also improve forward visibility slightly and allow for a proper check of oncoming traffic before making the turn. This is dependent upon their being sufficient carriageway available within the adopted highway boundary.

Additional Speed Signage

8.2 In addition to/ as an alternative to the above, additional speed signage could be introduced on the approach to both bends.

Justification: Slowing ahead vehicles gives right-turning traffic more time to see oncoming traffic and they can adjust behaviour accordingly, rather than taking a risk.

Pedestrian Facilities

8.3 Some of the footways in the area are narrowed due to encroachment of hedge/verge/leaf debris. Good maintenance of this should reveal wider footways in some places. This can either be carried out by the LHA, or by the highway authority notifying the adjacent landowners to undertake maintenance where applicable. Additional footways could be considered to ensure a safe continuous route between Warburton, Partington and Lymm. The potential for crossing facilities such as dropped kerbs and tactile paving, with or without central refuges should be considered, particularly within Warburton village itself and along Dunham Road.

Where necessary, on particularly vulnerable sections of the carriageway, guard-railing could be installed.

Justification: Whilst there are not expected to be a large number of additional pedestrians as a result of the committed development, higher volumes of traffic will make it less attractive for existing pedestrians in the area and will make it more unsafe to walk and cross roads.

Cycle Facilities

- 8.4 The local area is popular with both commuter and leisure cyclists however these are some of the most vulnerable road users in the area. Recommend investigations into whether there is sufficient road width to introduce cycle lane markings, or at least some markings across the bellmouths of junctions.

Justification: In order to emphasise priority to cyclists on the road and make them more visible to drivers.

Speed reduction

- 8.5 The speed of vehicles eastbound on Paddock Lane through the village exceeds 30mph. Investigate potential to introduce additional vehicle activated signage or road markings.
- 8.6 Consider additional signage at western end of Paddock Lane to reinforce 30mph speed limit. Alternatively, reduce speed limit to 20mph along Paddock Lane through the village.

Justification: in order to reduce the frequency and severity of accidents.

One-way Working

Paddock Lane

- 8.7 There is potential to introduce a TRO to allow one-way working eastbound only along Paddock Lane. This would remove right-turning manoeuvres on the bend. To reach Warburton or Bridge Road from the east, vehicles would continue south and turn right onto Townfield Lane where forward visibility is much better. The additional travel distance to reach the junction of Paddock Lane/bridge Lane is 840m.

Justification: to remove vehicle conflict where forward visibility is poor. Also removes westbound traffic queueing for Warburton Toll Bridge through the village.

Carrgreen Lane

- 8.8 Given Carrgreen Lane has a loop formation with the B5160 Dunham Road, there is potential to make this route one-way.

Justification: to remove vehicle conflict where there is insufficient space for two vehicles to pass and large vehicles often have to reverse, causing a danger to the highway network.

9.0 SUMMARY AND CONCLUSIONS

- 9.1 The Warburton Traffic & Transport Study has investigated the existing traffic and transport issues within the Parish, including: a site visit; review of the most recent accident data; analysis of existing speeds, vehicle volumes; and, anticipated committed development traffic as a result of development in Partington and Carrington.
- 9.2 All of the above measures are subject to additional investigations such as the available adopted highway boundary, the support of the Local Highway Authority and funding streams.