

M4 Junction 17 Improvements Scheme

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GG 142 Walking, Cycling and Horse-riding Assessment Walking, Cycling and Horse-Riding Assessment Report

15/06/21

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Contents

Chapter	Page
1. Introduction	5
1.1. Background	5
1.2. Proposed highway scheme	5
1.3. WCHAR study area	6
2. Walking, cycling and horse-riding assessment	7
2.1. Policies and strategies	7
2.2. Key policy themes	10
2.3. Collision data	10
2.4. Existing facilities	12
2.5. Public transport and interchange information	16
2.6. Existing trip generators	18
2.7. Future trip generators	19
2.8. Site visit	19
2.9. Walking, cycling and horse-riding counts	26
2.10. Liaison with stakeholders	26
3. User opportunities	30
3.1. Walking, cycling and horse-riding opportunities	30
3.2. Walking opportunities	31
3.3. Cycling opportunities	31
3.4. Horse-riding opportunities	31
4. Next steps	32
4.1. Collaborative design	32
4.2. Further outputs	32
5. WCHAR assessment team statement	33

Tables

Table 2-1 – National policies and strategies	7
Table 2-2 – Wiltshire policies and strategies	8

Figures

Figure 1-1 – 1km study area	6
Figure 2-1 – Collisions in the study area (2015-2019)	11
Figure 2-2 – Collisions within immediate scheme extent (2015-2019)	12
Figure 2-3 – M4 Junction 17 footways	13
Figure 2-4 – National Cycle Network	14
Figure 2-5 – Public Right of Way network around M4 Junction 17	15
Figure 2-6 – Alternative crossings of the M4	16

Figure 2-7 – Hourly frequency of bus service (weekday AM peak)	17
Figure 2-8 – Trip generators	18
Figure 2-9 – Chippenham Gateway Development	19
Figure 2-10 – Site visit observation locations	21
Figure 2-11 – A350 (northbound) footway	21
Figure 2-12 – New footway on B4122 between Chippenham Pit Stop Services and Chippenham Gateway development	22
Figure 2-13 – A429 uncontrolled pedestrian crossing north of Seagry Road	22
Figure 2-14 – A429 footway opposite Seagry Road with defects and considerable camber	23
Figure 2-15 – A429 uncontrolled pedestrian crossing south of Church Lane	23
Figure 2-16 – A429 Seagry Road junction	24
Figure 2-17 – A429 Church Lane junction	24
Figure 2-18 – End of footway on Church Lane towards Stanton St Quintin	25
Figure 2-19 – Access to SSTQ4 bridleway north from Seagry Road	25
Figure 2-20 – Estimated cyclists in scheme area	26
Figure 2-21 – Map from Countryside Access Officer	27
Figure 3-1 – Locations of opportunities	30

1. Introduction

1.1. Background

This Assessment Report has been produced in accordance with the requirements set out in Design Manual for Roads and Bridges (DMRB) GG 142 Walking, cycling and horse-riding assessment and review (WCHAR) for Wiltshire Council to inform the design process for the M4 Junction 17 improvement scheme.

The purpose of the report is to provide an assessment of the existing facilities and provision for pedestrians, cyclists and equestrians that will help inform decision making throughout the design process. Part of the process is also to identify where latent demand may exist which could be unlocked through scheme development and additionally the assessment takes account of proposed housing and employment development in the close vicinity. Where appropriate, opportunities for improvements have been identified with the intention that these should be considered through the design process and re-visited through the production of review reports at appropriate stages.

It is intended that the information within this assessment report will help inform the wider design team as to the needs of and issues faced by pedestrians, cyclists and equestrians as improvement options for the scheme are progressed. The details of the design have not been considered as part of this assessment (as per GG 142 requirements) but will be considered in the subsequent review phase.

The scheme has completed the options stage, however preliminary design has not yet started. The outputs of this WCHAR will feed into the preliminary design stage of the scheme. This WCHAR report has been produced alongside the Outline Business Case (OBC) for the scheme, with any opportunities identified in the WCHAR report to be considered as part of the Full Business Case (FBC). The Lead Assessor has judged that the scheme should be classified as a ‘small scheme’ in the context of GG 142 on the basis of the following:

- GG 142 Table 2.2.1 states the criteria for a small scheme includes “changes to existing motorway or trunk road junctions that affect the local highway network in a rural area”; and
- The scheme is not aimed principally at providing for pedestrians, cyclists or equestrians.

The designer for this scheme is Atkins Transportation. **Jamie Adkins** is the design team leader for the preliminary design stage of the scheme and has appointed the following Lead Assessor to undertake the WCHAR process:

Megan Hansen BA (Hons), MTPS

Transport Planner, Atkins Transportation

In accordance with GG 142, Megan has determined the scheme to be a ‘small scheme’ in relation to the potential impact on walking, cycling and horse-riding facilities and has appointed Jozef Denby as an additional Assessor. Megan has judged that Jozef has the appropriate previous experience to undertake the delegated tasks. The Lead Assessor aligns with the competencies expected of a Lead Assessor and their CV is on file as needed.

1.2. Proposed highway scheme

The M4 Junction 17 improvements scheme is considered a top 9 priority MRN scheme by the Western Gateway Sub-national Transport Body (STB) due to its ability to improve north-south connectivity in the area. The scheme will build upon the partial signalisation of M4 Junction 17 that was completed in May 2018, where the eastbound and westbound off-slips were signalised to reduce instances of queuing on the M4.

The scheme includes increasing the number of traffic lanes on the M4 Junction 17 circulatory carriageway and widening of entries and exits, with full signalisation. These improvements will contribute to the five main objectives of the scheme:

- Reduce delay and improve journey time reliability at M4 Junction 17, supporting journeys on the SRN.
- Support the overall success of the A350 improvements programme (including MRN) by delivering complementary improvements at M4 Junction 17.
- Improve north-south connectivity on the A350 through improvements to M4 Junction 17, the gateway to the A350 from the SRN.
- Ensure that M4 Junction 17 has the capacity to accommodate planned and future growth in the A350 Corridor and in the A350 and Swindon M4 SWLEP Growth Zones, including the Chippenham Urban Expansion and the Wiltshire Local Plan Review.

- Improve existing safety levels at M4 Junction 17, taking into account forecast traffic growth.

1.3. WCHAR study area

The approximate study area for the M4 Junction 17 scheme is shown in Figure 1-1. As the Lead Assessor has classified the scheme as a small scheme the overall study area covers an approximate distance of 1km around M4 Junction 17. The study area includes the eastern side of the village of Stanton St Quintin, the A429 to the north of the M4, and stretches of the A350 and B4122 to the south of the motorway. The study area predominately consists of a rural area.

The Lead Assessor has determined that since the study area is mostly rural, the assessment will also look for opportunities outside of the study where these are judged to be relevant.

Figure 1-1 – 1km study area



2. Walking, cycling and horse-riding assessment

2.1. Policies and strategies

This section provides a review of relevant policies and strategies as part of this Assessment. The key points from each document relating to walking, cycling and horse-riding are provided.

2.1.1. National policies and strategies

National policies and strategies relevant to the proposed scheme are outlined in Table 2-1 below.

Table 2-1 – National policies and strategies

Document	Key points	Relevance to scheme
National Planning Policy Framework Ministry of Housing, Communities & Local Government, February 2019	Section 8 states <i>‘Planning policies and decisions should aim to achieve, healthy, inclusive and safe places which.....encourage walking and cycling’</i> Para 102 states <i>‘Transport issues should be considered from the earliest stages of plan-making and development proposals so that opportunities to promote walking, cycling and public transport are identified and pursued’.</i>	The potential scheme can provide infrastructure to support the encouragement of walking and cycling.
Cycling and Walking Infrastructure Strategy (CWIS) Department for Transport (DfT), 2017	CWIS outlines the government’s ambition to make cycling and walking a natural choice for shorter journeys, or as part of longer journeys by 2040.	The potential scheme can provide infrastructure to support the uptake of walking and cycling.
Road Safety Statement 2019: a lifetime of road safety Department for Transport, Driver and Vehicle Standards Agency, Driver and Vehicle Licensing Agency, and Highways England, 2019	The Road Safety Statement focuses on actions for the next two years to move the UK to an integrated approach to road safety, focusing on both collision prevention and post collision response. The Statement is divided into three areas - safer people, safer vehicles and safer roads.	The potential scheme can provide infrastructure or improvements to facilitate/provide solutions to identified road safety issues/concerns, thus providing safer conditions for all users.
Gear Change: A bold vision for cycling and walking Department for Transport, 2020	This document outlines the vision to facilitate a step-change in cycling and walking, whilst acknowledging there is a unique opportunity to transform the role cycling and walking can play in the transport system, and get England moving differently It sets out the actions required at all levels of government to make this a reality, grouped under four themes: <ul style="list-style-type: none"> • better streets for cycling and people • cycling and walking at the heart of decision-making • empowering and encouraging local authorities 	The potential scheme can provide infrastructure to support the uptake of walking and cycling.

Document	Key points	Relevance to scheme
	<ul style="list-style-type: none"> enabling people to cycle and protecting them when they do 	
LTN 1/20 Cycle Infrastructure Design Department for Transport, 2020	This local transport note (LTN) provides guidance to local authorities on delivering high quality, cycle infrastructure including: <ul style="list-style-type: none"> planning for cycling space for cycling within highways transitions between carriageways, cycle lanes and cycle tracks junctions and crossings cycle parking and other equipment planning and designing for commercial cycling traffic signs and road markings construction and maintenance 	The potential scheme can provide high quality and exemplar infrastructure to support the encouragement of cycling.
Advice on Multi-user Routes British Horse Society (BHS), September 2016	The BHS calls for horse-riders and carriage-drivers to be included in any provisions for cyclists or pedestrians which could physically include equestrians. The BHS also strongly advocates promotion of sharing and tolerance between all users.	As part of this Assessment, equestrians and their needs must be considered on par with pedestrians and cyclists.
Advice on road crossings for horses British Horse Society, September 2016	A number of factors should be taken into consideration when looking at road crossings and equestrian needs. This includes visibility requirements for riders, siting of crossings, use of road markings, design of crossings and length of inter-green period.	As part of this Assessment, equestrians and their needs must be considered on par with pedestrians and cyclists.

2.1.2. Local policies and strategies

Local authority policies and strategies for Wiltshire relevant to the potential scheme are outlined in Table 2-2 below.

Table 2-2 – Wiltshire policies and strategies

Document	Key points	Relevance to scheme
Wiltshire Core Strategy Wiltshire Council, January 2015	The Wiltshire Core Strategy has six strategic objectives. Strategic objective 6 is <i>'to ensure that essential infrastructure is in place to support our communities'</i> . To meet this objective, the strategy outlines a number of policies focused around sustainable transport measures, including: <ul style="list-style-type: none"> Core Policy 60: Sustainable transport– reduce the need to travel particularly by private car and encourage the sustainable, safe and efficient movement of people and goods within and through Wiltshire. Core Policy 61: Transport and new development – new development should be located and designed to reduce the need to travel, particularly by car, and to encourage the use of sustainable transport alternatives. As part of a transport assessment, the developer must demonstrate that consideration has been given to the needs of all transport users 	The Core Strategy contains strong messages on promoting walking and cycling. The potential scheme can provide infrastructure to support the encouragement and promotion of walking and cycling.

Document	Key points	Relevance to scheme
	<p>following a user hierarchy (visually impaired and other disabled people as the first priority, followed by pedestrians and then cyclists).</p> <ul style="list-style-type: none"> • Core Policy 63: Transport strategies – Packages of integrated transport measures will be identified in Chippenham, Trowbridge and Salisbury to help facilitate sustainable development growth. Each of the packages will consider the implementation of a number of measures including new and improved networks of routes for pedestrians and cyclists, interchange enhancements and smarter choice measures. <p>Core Policies 9 and 10 outline the Chippenham Area Strategy. The strategy identifies a number of principles for new developments, including a focus on linking up to the town centre through high quality pedestrian and cycle routes, and better integration between modes.</p>	
<p>Wiltshire Local Transport Plan (LTP3) 2011-2026 Wiltshire Council, March 2011</p>	<p>The Wiltshire Local Transport Plan (LTP3) outlines the following vision: <i>‘To develop a transport system which helps support economic growth across Wiltshire’s communities, giving choice and opportunity for people to safely access essential services. Transport solutions will be sensitive to the built and natural environment, with a particular emphasis on the need to reduce carbon emissions.</i></p> <p>Relevant local strategic transport objectives include:</p> <ul style="list-style-type: none"> • S02 - To provide, support and/or promote a choice of sustainable transport alternatives, including walking, cycling, buses and rail. • S05 - To improve sustainable access to a full range of opportunities particularly those people without access to a car. • S08 - To improve safety for all road users and to reduce the number of casualties on Wiltshire’s roads. • S011 – To reduce the level of air pollutant and climate change emissions from transport. • S012 – To support planned growth in Wiltshire and ensure that new developments adequately provide for their sustainable transport requirements and mitigate their traffic impacts. • S014 – To promote travel modes that are beneficial to health. • S018 – To enhance the journey experience of transport users. <p>The plan identifies three strategic transport themes related to cycling and walking:</p> <ul style="list-style-type: none"> • Provide a sympathetically designed, high quality and well-maintained network of cycle routes in the market towns, and where appropriate, provide links between the market towns and to national cycle routes. 	<p>The need to improve walking and cycling routes and networks was a prominent theme in the LTP3, along with ensuring new developments are designed to encourage and support walking and cycling. Health benefits and ensuring the safety of all road users are also key themes. This Assessment will look to support these aims.</p>

Document	Key points	Relevance to scheme
	<ul style="list-style-type: none"> • Provide high quality cycle parking at key destinations and transport interchanges. Require adequate levels of high-quality cycle parking in all new developments with higher levels of provision in the market towns. • Provide a sympathetically designed, high quality and well-maintained network of walking routes in and between significant trips origins and destinations (e.g. housing, shops, employment areas, transport interchanges, tourist attractions, etc.). 	
The Wiltshire Community Plan Wiltshire Assembly, April 2011	The Wiltshire Community Plan sets out that the council and its partners need to: <i>‘Provide a safer and more integrated transport system that achieves a major shift to sustainable transport, including walking, cycling, and the use of bus and rail networks, especially in the larger settlements of Trowbridge, Chippenham, and Salisbury, and along the main commuting corridors’.</i>	The Community Plan contains a strong message on the need for a major shift to sustainable transport in Wiltshire. This Assessment will look to support this aim.
Stanton St Quintin Neighbourhood Development plan Stanton St Quinton Parish Council, 2017	The Stanton St Quintin Neighbourhood Development Plan contains the parishes policy on walking and cycling. Policy 15 states <i>‘Support will be given to proposals which increase or improve the network of cycle ways, footways and footpaths’</i> and that proposals that harm the safety, directness, access, connections, attractiveness or convenience of a public right of way will be resisted.	The Neighbourhood Development Plan’s policy on walking and cycling contains a strong message that only proposals for safe and attractive cycle paths will be supported.

2.2. Key policy themes

All levels of policy strongly support walking and cycling (and horse-riding where applicable). The following key themes are prominent:

- Walking and cycling should be promoted and encouraged where possible due to the many benefits these modes of transport can deliver to individuals, communities and society. The commitment to do this was very prominent in many policy/strategy documents;
- Walking and cycling networks should be improved to facilitate active travel (in particular, routes should provide strong connections to the town centre and other key destinations within Chippenham);
- New development and development design should support, promote and encourage walking and cycling; and
- The needs of all three user groups should be taken into consideration when planning for new infrastructure. This is especially the case in improving road safety.

2.3. Collision data

Personal injury collision (PIC) data for pedestrians, cyclists and equestrians within the study area was reviewed by the assessment team. This data was obtained from freely available STATS 19 data¹ for the five-year period of 2015-2019. It should be noted that data was sourced from the Department of Transport website which does not include the police description of the circumstances of each collision; nor does the data cover damage-only collisions.

¹Available from: <https://data.gov.uk/dataset/cb7ae6f0-4be6-4935-9277-47e5ce24a11f/road-safety-data>

Casualties from PICs within the study area are mapped in Figure 2-1 with a focused version of the collisions at M4 Junction 17 in Figure 2-2. There were no PICs involving pedestrians, cyclists, or equestrians within the study area in the five-year period.

PICs within the study area are concentrated on the M4 Junction 17 circulatory carriageway, as well as the A429 and the M4. There were: no collisions resulting in fatal injuries; eight collisions in the five-year period resulting in 11 casualties with serious injuries; and 38 collisions resulting in 52 casualties with slight injuries within the study area.

In total there were 25 collisions on the M4 Junction 17 circulatory and on/off slips, two of which resulted in serious injury casualties, with a further 33 slight injury casualties reported in the 25 collisions. None of the PICs involved pedestrians, cyclists or equestrians.

At the A350 entry arm to M4 Junction 17, four collisions occurred in the five-year period resulting in seven slight injury casualties. At the M4 eastbound off-slip, four collisions occurred on the off-slip itself, resulting in eight slight injury casualties. A further five collisions occurred at the give-way/stop line at the junction, resulting in six slight injury casualties. Four of the collisions at the M4 eastbound off-slip give-way/stop line at the junction occurred pre-May 2018, when entry to the circulatory was not signal-controlled, and one collision occurred post implementation of traffic signals.

On the A429, three collisions occurred at the wide staggered crossroads approximately 250m north of M4 Junction 17, resulting in six serious injury and five slight injury casualties.

Figure 2-1 – Collisions in the study area (2015-2019)

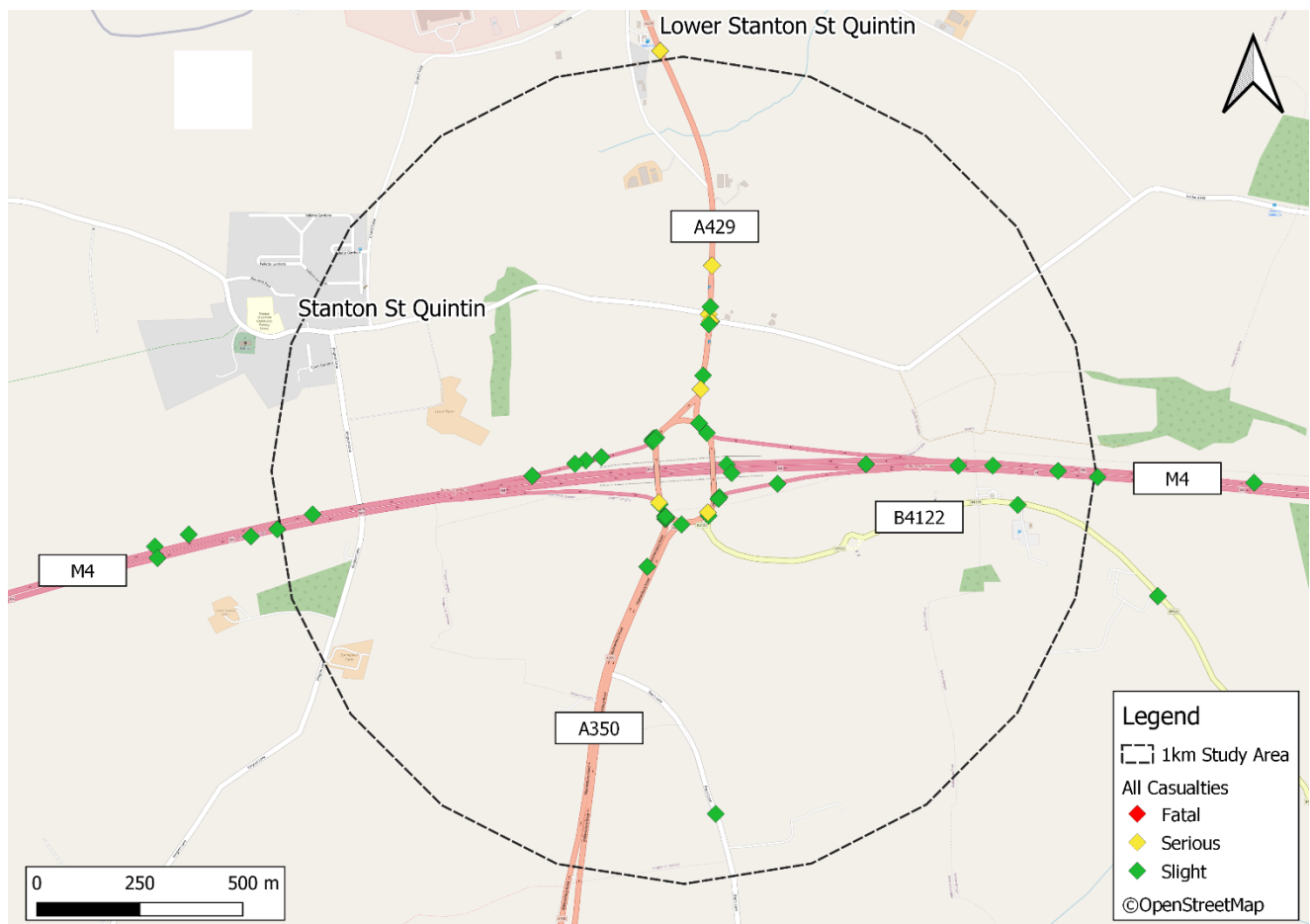
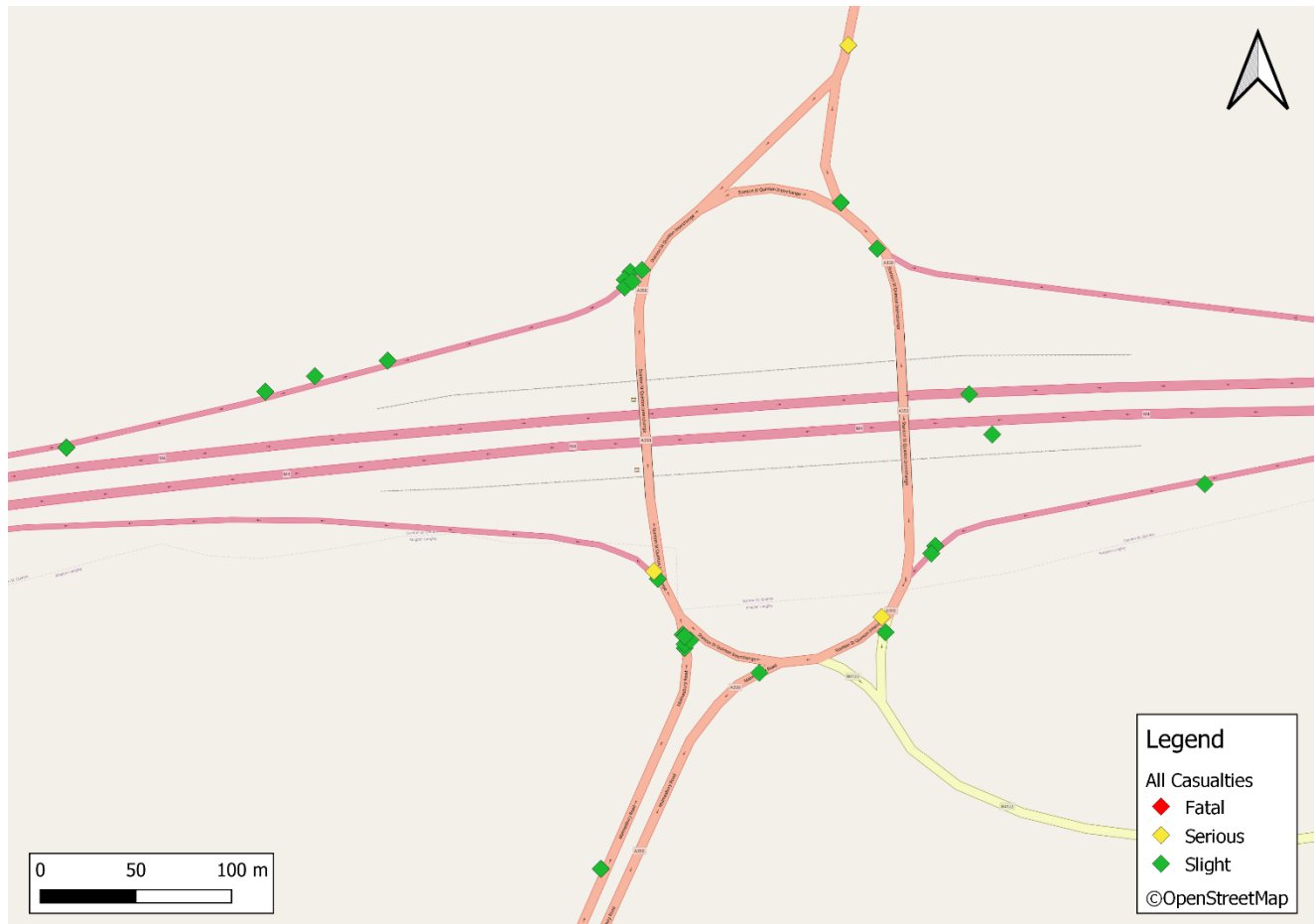


Figure 2-2 – Collisions within immediate scheme extent (2015-2019)



2.4. Existing facilities

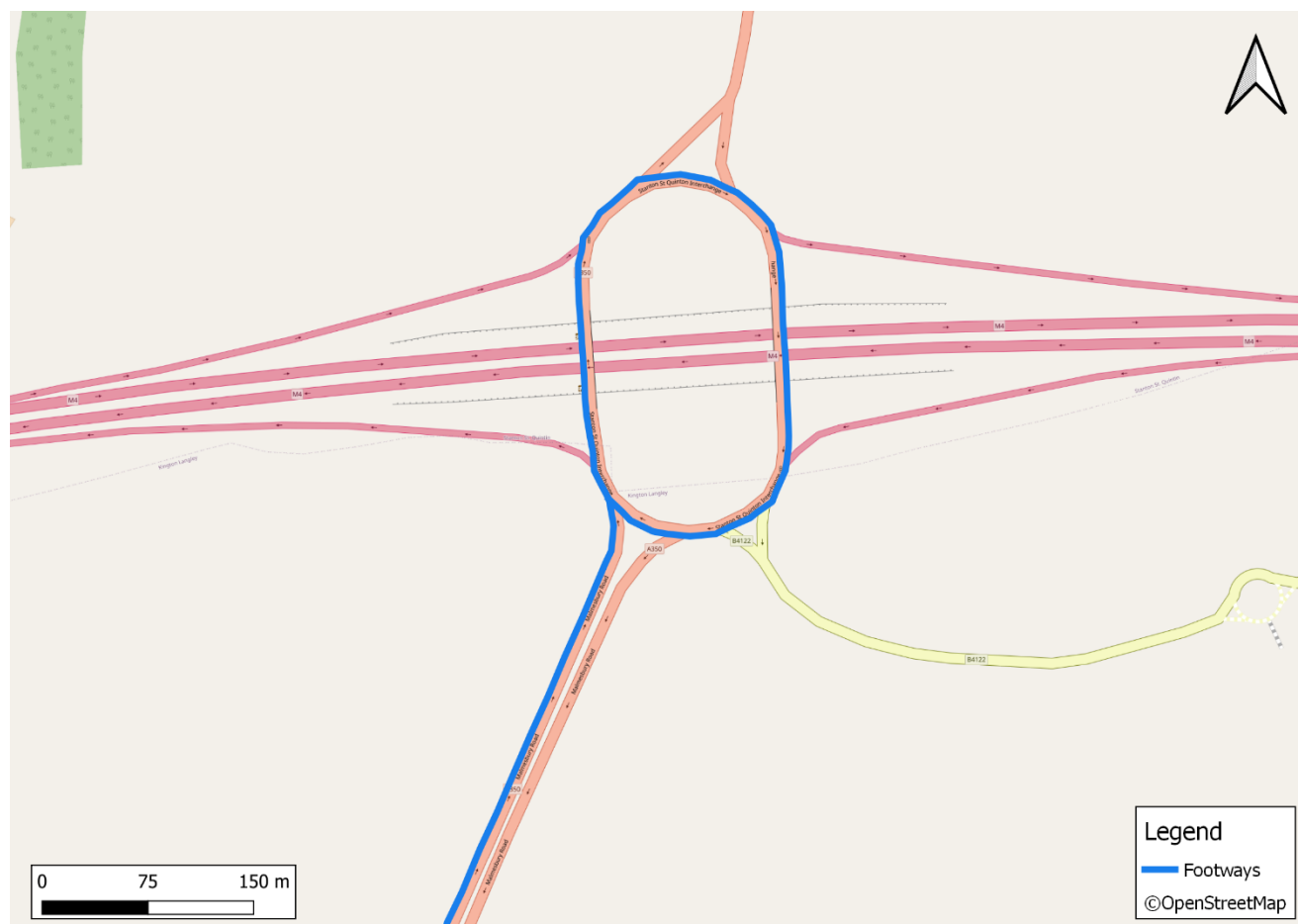
2.4.1. Pedestrian facilities

Pedestrian facilities within the immediate scheme extent of the M4 Junction 17 are limited. There is a footway that runs around the nearside of the roundabout circulatory, as shown in Figure 2-3. This footway has a surfaced width of approximately 1.8m-2m. The only arm of junction which has a footway connecting to M4 Junction 17 is the northbound carriageway of the A350, where a footway with a surfaced width of approximately 1.8m runs for around 475m south (to a small industrial estate containing the Chippenham Pallet Company). At this point however the footway ends and does not appear to link to any onward walking routes.

There are dropped kerbs at each of the crossings of the arms of M4 Junction 17, with tactile paving across only the B4122 entry and exit arms. It is unclear why the B4122 crossings have tactile paving when the other arms of the junction do not; especially considering the A350 entry arm is the only road that has a footway.

Overall the M4 Junction 17 pedestrian facilities are isolated and do not connect to a wider footway network.

Figure 2-3 – M4 Junction 17 footways



2.4.2. Cyclist facilities

There are no dedicated cycling facilities in the study area. On the M4 motorway and M4 Junction 17 slip roads, cycling is not legally permitted. The A350 is an unrestricted dual carriageway and although cycling is legally permitted, is not suitable for the majority of cyclists due to the high speed of vehicles. The A429 and B4122 are single carriageway roads with national speed limit, so again unsuitable and undesirable for a significant proportion of cyclists.

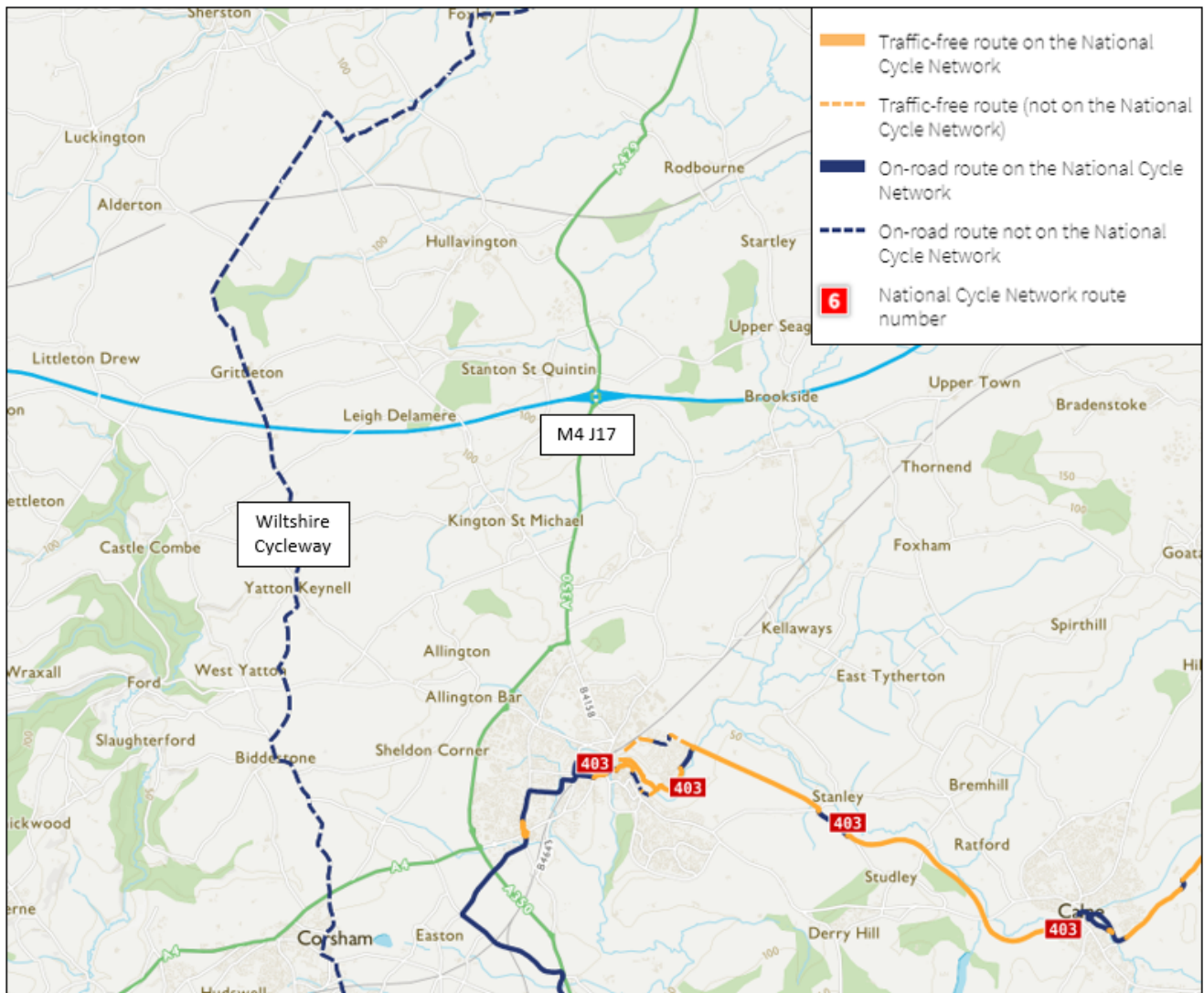
The nearest designated cycle route to M4 Junction 17 is the Wiltshire Cycleway, an on-road route that crosses the M4 approximately 5.5km to the west of M4 Junction 17 at an overbridge, just south of the village of Grittleton (see Figure 2-4). The Wiltshire Cycleway circles the county for 255 km, linking to several National Cycle Network (NCN) routes and the National Byway.

It is noted that the section of the Wiltshire Cycleway nearest M4 Junction 17 is no longer included on the NCN. In 2020 Sustrans announced a reclassification exercise where they removed many hundreds of kilometres of on-road cycling routes from the NCN². These routes are retained on NCN mapping for the use by “*experienced users*”, but “*do not meet the high-quality standards*” Sustrans aspire to for the NCN, due to “*high motor traffic speeds and volumes*”. This suggests there is an opportunity to provide a cycle route that crosses the M4 in the area that is suitable for all types of cycle users.

The nearest NCN is Route 403, that runs through the centre of Chippenham approximately 6km to the south of M4 Junction 17. Route 403 crosses the North Wessex Downs and Savernake Forest, linking Chippenham to Marlborough and the Kennet & Avon Canal.

² <https://www.sustrans.org.uk/about-us/paths-for-everyone/reclassification-of-the-national-cycle-network-faqs>

Figure 2-4 – National Cycle Network³



2.4.3. Equestrian facilities

As with cycling, equestrians are not legally permitted to use the M4 motorway, however they are permitted to use the A350, A329 and B4122, although these are high speed roads with no equestrian facilities so are unlikely to be suitable for the majority of equestrians. Equestrians are able to use bridleways, of which there are several in the area (see Figure 2-3 in the following section).

2.4.4. Public Rights of Way

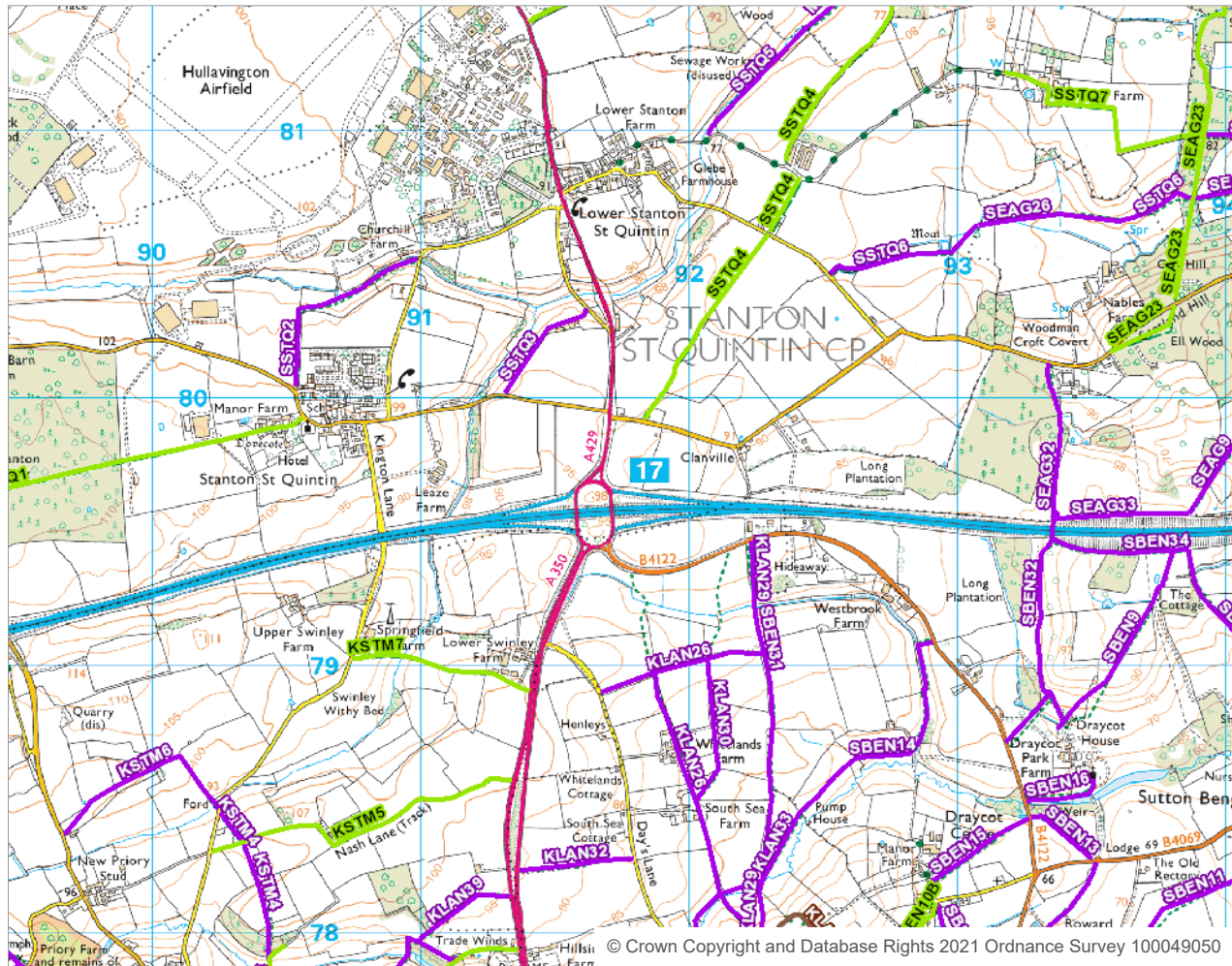
No public rights of way (PRoW) pass through or connect directly to M4 Junction 17, however there are several PRoW within the study area or crossing the M4 close to the scheme (see Figure 2-5):

- SSTQ4: Bridleway connecting the east side of the A429, approximately 300m north-east of M4 Junction 17, to the area east of Lower Stanton St Quintin village, continuing further north.
- SEAG32, SEAG33, SBEN32, SBEN34: Network of footpaths providing north to south connectivity across the M4 via a livestock bridge approximately 1.7km east of M4 Junction 17. This network connects the villages of Sutton Benger and Upper Seagry and surrounding areas.

³SUSTRANS: <https://www.sustrans.org.uk/national-cycle-network>

- KLAN29, SBEN31: Footpath south-east of M4 Junction 17 connecting to the B4122 just west of the Chippenham Pit Stop services, and south to the village of Kington Langley approximately 3km south of M4 Junction 17.
- KSTM7: Bridleway connecting the western carriageway of the A350 to Kington Lane at the western edge of the scheme study area.
- SSTQ3: Footpath linking the area directly east of Stanton St Quintin to the lane running parallel to the A429, approximately 500m south of Buckley Barracks.

Figure 2-5 – Public Right of Way network around M4 Junction 17⁴



Key: Green – Bridgeway, Purple – Footpath

2.4.5. Alternative crossings of the M4

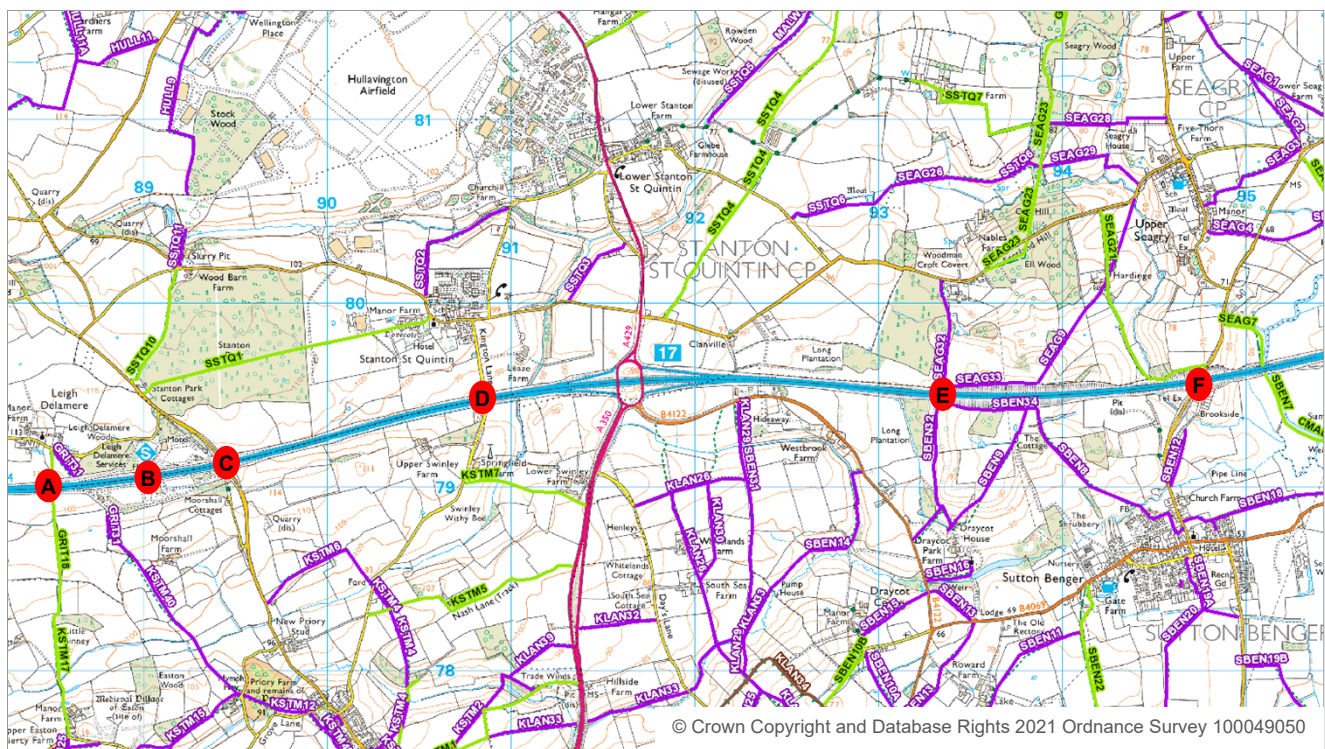
The potential options for pedestrians, cyclists or equestrians to cross the M4 in the area, other than at the M4 Junction 17 itself, are mapped in Figure 2-6 and detailed below from west to east. Other than crossing D, all these crossings are located outside of the 1km study area, however due to the rural nature of the area these are still considered relevant. Due to the motorway designation of the M4 all these crossings are grade-separated.

- Farm access bridge approximately 3.2km west of M4 Junction 17. This bridge is designated as a bridleway and connects to the village of Leigh Delamere to the north.
- Footbridge over the motorway connecting the north and south sides of the Leigh Delamere services.

⁴ Wiltshire Council Rights of Way Explorer
<https://wiltscouncil.maps.arcgis.com/apps/webappviewer/index.html?id=43d5a86a545046b2b59fd7dd49d89d22>

- c. Road bridge over the M4 just to the east of Leigh Delamere services, which links to the village of Kington St Michael to the south. There is no dedicated infrastructure along this road for walking, cycling or horse-riding, including no footway. The bridge itself is single file width for vehicles.
- d. Road underpass linking Stanton St Quintin to the north with Kington St Michael to the south. The road, including at the underpass, does not have any dedicated walking, cycling or horse-riding infrastructure, including footways.
- e. Farm access bridge over the M4 approximately 1.7km east of M4 Junction 17. This bridge is designated as a footpath which continues north to Scotland Hill and south to Draycot Cerne. Either side of the bridge there are also two footpaths which run parallel to the M4 to the east.
- f. Seagry Road bridge which links the villages of Upper and Lower Seagry to the north to Sutton Benger to the south of the M4. Again, there is no dedicated walking, cycling or horse-riding infrastructure on the bridge or on Seagry Road to the north and south.

Figure 2-6 – Alternative crossings of the M4⁵



Key: Green – Bridgeway, Purple – Footpath

2.5. Public transport and interchange information

2.5.1. Railway stations

There are no railway stations within the study area. The nearest railway station is Chippenham on the Great Western Main Line approximately 5.5km to the south of M4 Junction 17, located on Station Hill/Cocklebury Road in Chippenham town centre.

There are services to London Paddington from Bristol Temple Meads, Swindon and Westbury – approximately one service per hour at the time of this assessment report (due to travel restrictions under the Covid-19 pandemic), but up to three services per hour during peak periods under normal operation.

⁵ Wiltshire Council Rights of Way Explorer
<https://wiltscouncil.maps.arcgis.com/apps/webappviewer/index.html?id=43d5a86a545046b2b59fd7dd49d89d22>

2.5.2. Bus services

Figure 2-7 shows the frequency of bus services on roads in the study area. This data has been obtained from the Basemap Datacutter database⁶ for weekday AM hours and is updated every three months coinciding with the Public Transport Network update.

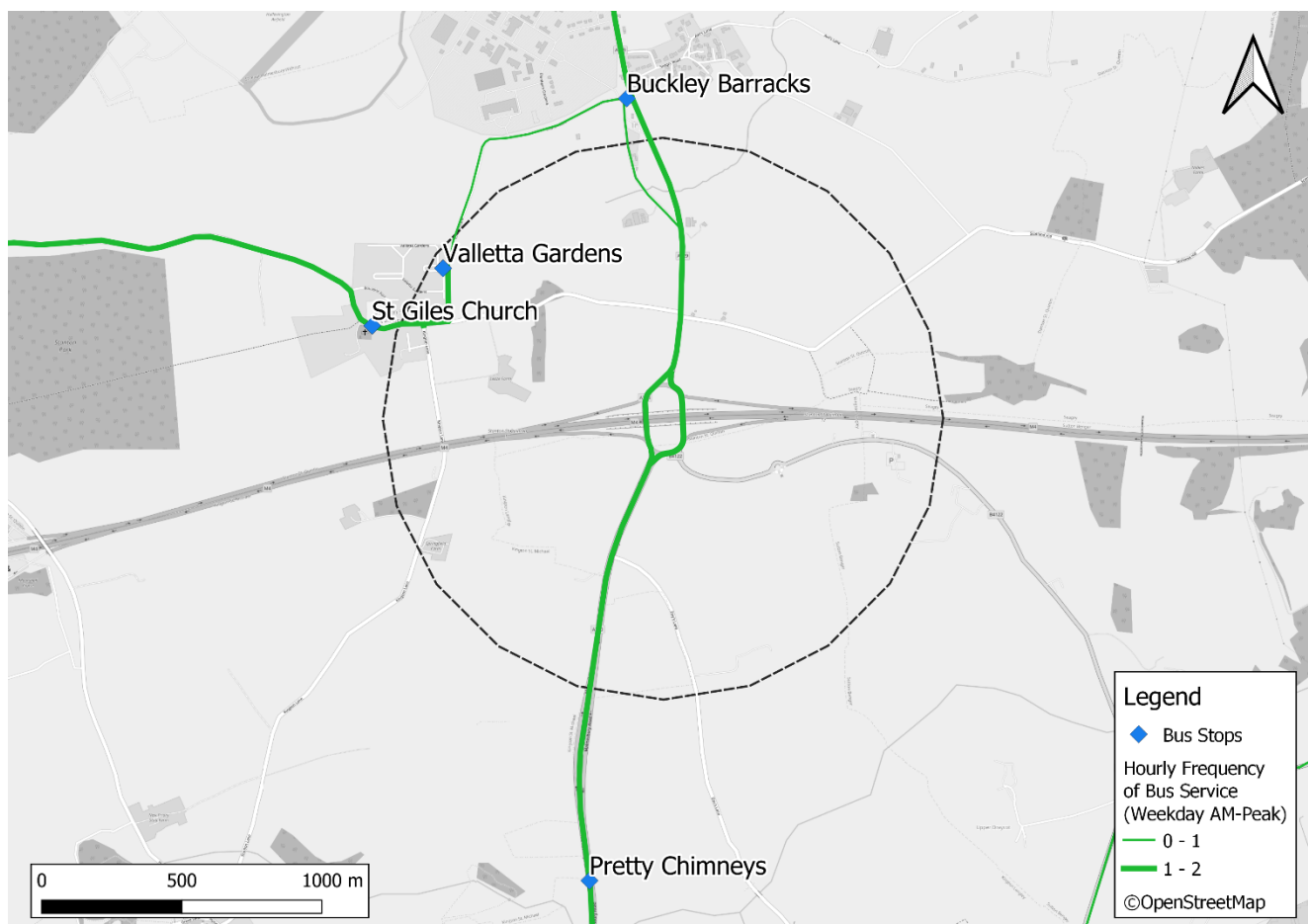
The only bus service running within the study area is route 92, operated by Coachstyles. This service operates between Chippenham and Malmesbury via the A350 and A429, looping via Stanton St Quintin and Hullavington. The 92 service currently runs Monday to Saturday once per hour (but may have been more frequent before Covid-19 restrictions).

There are no bus stop facilities at M4 Junction 17; the closest bus stops to the junction are (as shown in Figure 2-7):

- ‘Buckley Barracks’ stop on Church Lane in Lower Stanton St Quintin;
- ‘Valletta Gardens’ stop on Church Lane and ‘St Giles Church’ stop on Kington Lane in Stanton St Quintin; and
- ‘Pretty Chimneys’ stop on the A350.

These stops are supported by a mixture of lay-bys and on-carriageway provision. The Buckley Barracks stop has a shelter provided.

Figure 2-7 – Hourly frequency of bus service (weekday AM peak)



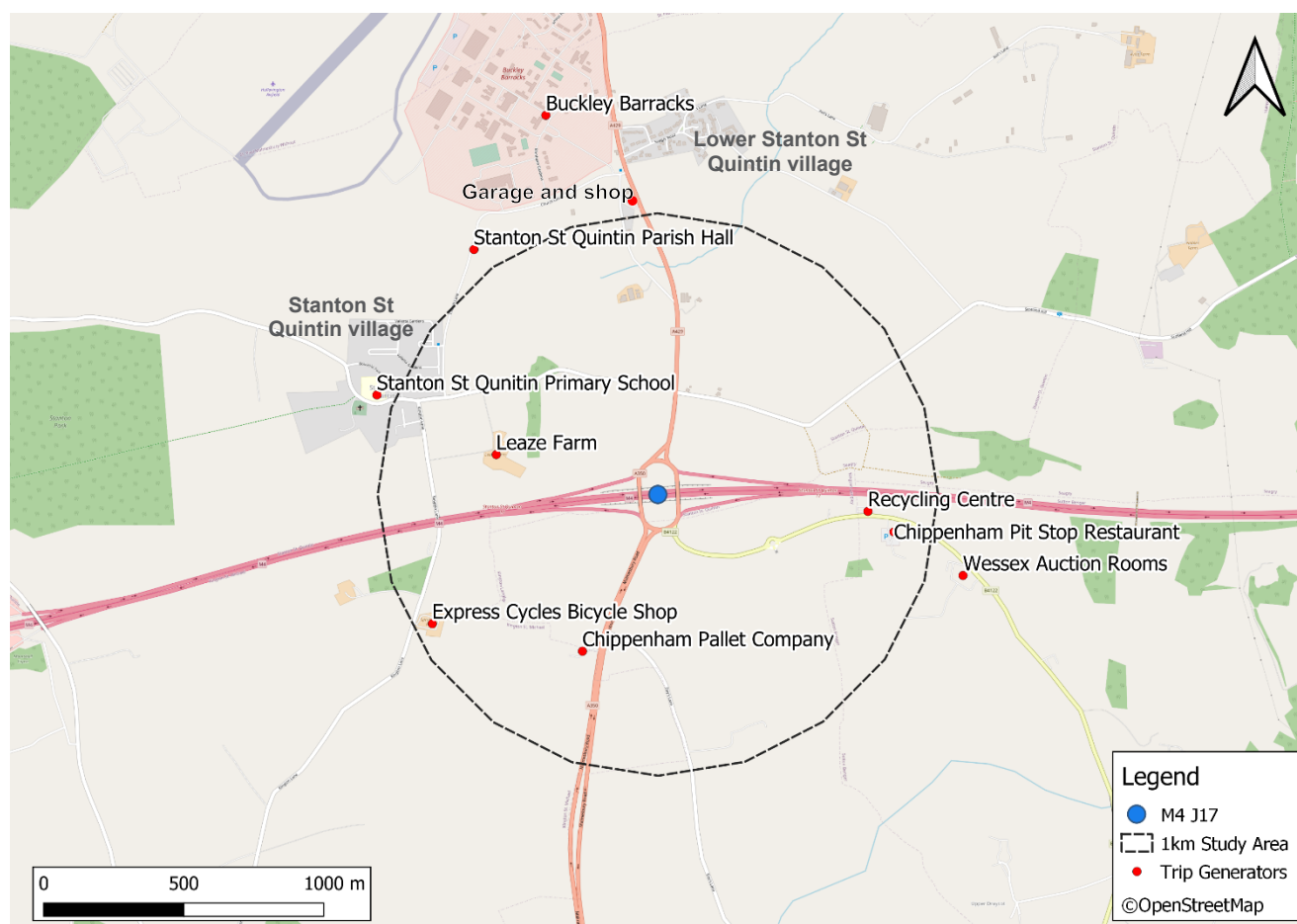
⁶Basemap Datacutter: <http://datacutter.basemap.co.uk/DataCutter>

2.6. Existing trip generators

Existing trip generators within the local area are presented in Figure 2-8. The largest trip generator is likely to be Buckley Barracks, which also includes a Dyson research and development centre, and is expected to be a relatively large employment generator in the area. It's also understood that the Dyson site has planning permission for another site at the former Hullavington Airfield, however the timescales for this development are uncertain.

A primary school is located in Stanton St Quintin, which also serves the village of Lower Stanton St Quintin. There is no footway on Church Lane connecting the two villages. On the A429 there is a garage and Budgens shop, functioning as the village shop for the two villages. The speed limit of the A429 past the garage and junctions to Stanton St Quintin and Lower Stanton St Quintin is 50 mph, with two uncontrolled crossings with pedestrian refuge islands provided.

Figure 2-8 – Trip generators



2.7. Future trip generators

Chippenham Gateway is an employment development scheme planned for the area immediately to the south-east of M4 Junction 17 (see Figure 2-9). The site will deliver approximately 90,000m² of Class B8 (storage and distribution) employment space. The M4 corridor represents a major route for logistics operations within the UK and the Chippenham Gateway development would deliver a development that can anchor the M4/A350 corridors.

The new roundabout providing access to Chippenham Gateway was recently completed, with the employment site itself currently under construction. Provision of a shuttle bus service between the site and Chippenham Town Centre was a key parameter of the planning application.

Figure 2-9 – Chippenham Gateway Development⁷



2.8. Site visit

A site visit was undertaken on Wednesday 31st March 2021 by the Lead Assessor and Assessor. Weather conditions were dry and sunny.

Although a footway exists around the M4 Junction 17 gyratory, the assessment team did not feel comfortable using this footway due to the proximity of high speed traffic and the need to cross motorway slip roads, so the assessment team only observed the junction from the vehicle.

The following observations were made during the site visit. The locations are mapped on Figure 2-10, with photographs taken on site also provided where relevant:

- a. The footway around M4 Junction 17 appeared to be in good condition. However due to the close proximity of high speed and volume traffic, it did not feel comfortable to use as a pedestrian. No pedestrians were observed on site, although one cyclist was observed on-road travelling from the B4122 to the A429.

⁷Wiltshire Council Planning and Building Control: Document search results for 17/03417/OUT (wiltshire.gov.uk)

- b. The footway which runs for 475 metres alongside the A350 (northbound) was considerably overgrown, reducing effective width to less than a metre (Figure 2-11). This footway did not look used and was uncomfortable to walk along due to the close proximity of high speed and volume traffic. This is the only footway that extends from M4 Junction 17.
- c. Recently built footway on the south side of the B4122 between the new Chippenham Gateway development and Chippenham Pit Stop Services (Figure 2-12). This footway does not link to M4 Junction 17. The access to the footpath to the south (KLAN29) was via a stile and looked relatively overgrown.
- d. Busy staggered crossroads junction with no pedestrian facilities to the north of M4 Junction 17.
- e. There are two uncontrolled crossing points with refuge islands of the A429 through the 50mph speed limit approximately 100 metres apart – one to the north of Seagry Road and one to the south of Church Lane. Both crossings allow good visibility for pedestrians towards approaching vehicles. The crossing to the north of Seagry Road has dropped kerbs and tactile paving and was in generally good condition, although there was some minor debris build up (Figure 2-13). However the connecting footway on the westside of the A429 was in poor condition with a considerable camber which would not be suitable for some users (Figure 2-14).
- f. The crossing of the A429 to the south of Church Lane has dropped kerbs but no tactile paving (Figure 2-15). One of the traffic sign posts on the refuge had been knocked over and reviewing history of Street View indicates this is a regular occurrence.
- g. Footway along the northside of Seagry Road connects the residential area of Lower Stanton St Quintin with the A429. At the Seagry Road junction with the A429, there was tactile paving and a dropped kerb only on the south side of the junction (Figure 2-16).
- h. At the Church Lane junction to the A429, there are dropped kerbs but no tactile paving. The crossing distance is considerable due to the width of the junction entry. There is a splitter island, however it does not accommodate a pedestrian refuge (Figure 2-17).
- i. Footway continues only for a short distance (140m) west from the A429 on the southside of Church Lane, before ending with a TSRGD Diag. 562 'Walkers in road' warning sign (Figure 2-18).
- j. Access to bridleway SSTQ4 both north and south is possible from Seagry Road. The bridleway appeared to be used, with three walkers and an equestrian observed on site.
- k. Bridleway KSTM7 did not look well used, however this is not surprising given there is a lack of onward route for equestrians due to the high speed and volume of the A350 being unsuitable.

Figure 2-10 – Site visit observation locations

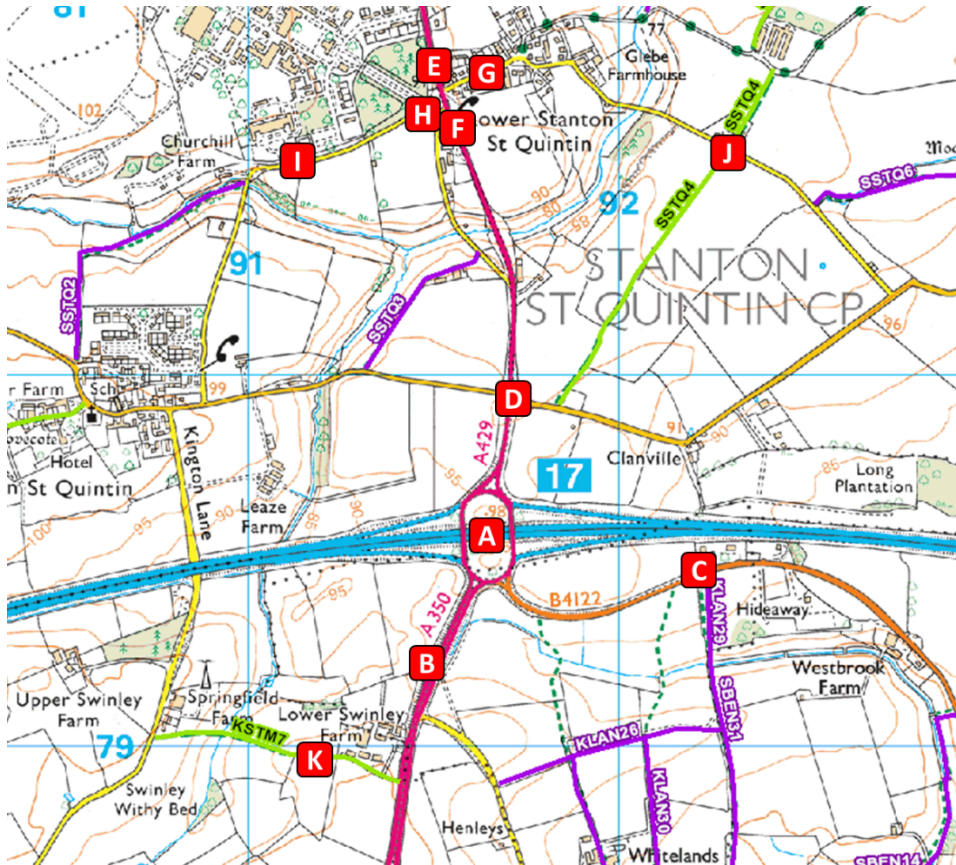


Figure 2-11 – A350 (northbound) footway



Figure 2-12 – New footway on B4122 between Chippenham Pit Stop Services and Chippenham Gateway development



Figure 2-13 – A429 uncontrolled pedestrian crossing north of Seagry Road



Figure 2-14 – A429 footway opposite Seagry Road with defects and considerable camber



Figure 2-15 – A429 uncontrolled pedestrian crossing south of Church Lane



Figure 2-16 – A429 Seagry Road junction



Figure 2-17 – A429 Church Lane junction



Figure 2-18 – End of footway on Church Lane towards Stanton St Quintin



Figure 2-19 – Access to SSTQ4 bridleway north from Seagry Road



2.9. Walking, cycling and horse-riding counts

Pedestrian count surveys were undertaken at M4 Junction 17 on 8th June 2016 between 0600-0900 and 1600-1900. The results showed no evidence of pedestrian movements through the junction during the survey period.

Predicted numbers of cyclists utilising M4 Junction 17 to cross the motorway are mapped in Figure 2-20. These numbers are taken from the Propensity to Cycle Tool (PCT)⁸ which is based on 2011 Census data. The PCT takes approximate start and end points of a cycle trip from the Census data, then applies a Cycle Streets routing algorithm which attempts to estimate the route taken by the cyclist⁹.

The PCT estimates that 10 cyclists route through M4 Junction 17 each day, with the same number also choosing to use the quieter route option to the west via the Stanton Lane / Kington Lane underpass. The PCT also suggests more cyclists to/from the south choose to use the B4122 (4) and Days Lane (4) than the A350 (2).

It is understood that local cycling groups use routes within the study area, particularly on the weekends. This demand is unlikely to be captured by the survey counts or the PCT.

Figure 2-20 – Estimated cyclists in scheme area



2.10. Liaison with stakeholders

The local council, parish councils and national user groups were contacted by email in early March 2021. Stakeholders were asked to comment on any issues, opportunities and desire lines in the 1km study area relating to walking, cycling or horse-riding.

At Wiltshire Council, the Public Rights of Way Officer, Head of Rights of Way and Countryside, Definitive Map and Highway Records Manager and Countryside Access Officer were contacted. A response was received from the Countryside Access Officer (see below).

The two parish councils located within the study area – Stanton St Quintin Parish Council and Sutton Benger Parish Council – were contacted for comment. Both Parish Councils responded that they would raise the scheme at their next council meetings, in March. However no further responses are yet to be received.

Additionally British Horse Society, The Ramblers and Sustrans were contacted via email. Responses were received from British Horse Society and The Ramblers (see below). Local cycling user groups have not been contacted at this stage but will be contacted for their views during the FBC stage of the scheme.

⁸Propensity to Cycle Tool: <https://www.pct.bike/m/?r=wiltshire>

⁹Propensity to Cycle Tool Essentials: https://npct.github.io/pct-shiny/regions_www/www/static/03d_other_reports/2020-pct-essentials.pdf

All feedback received from stakeholders has been considered in conjunction with the information gathered during this WCHAR assessment and has fed into the development of the opportunities found in Section 3.

2.10.1. Response – Wiltshire Council Countryside Access Officer

The following response was received from the Countryside Access Officer, along with the map in Figure 2-21, suggesting opportunities for new links and improvements to PRoW.

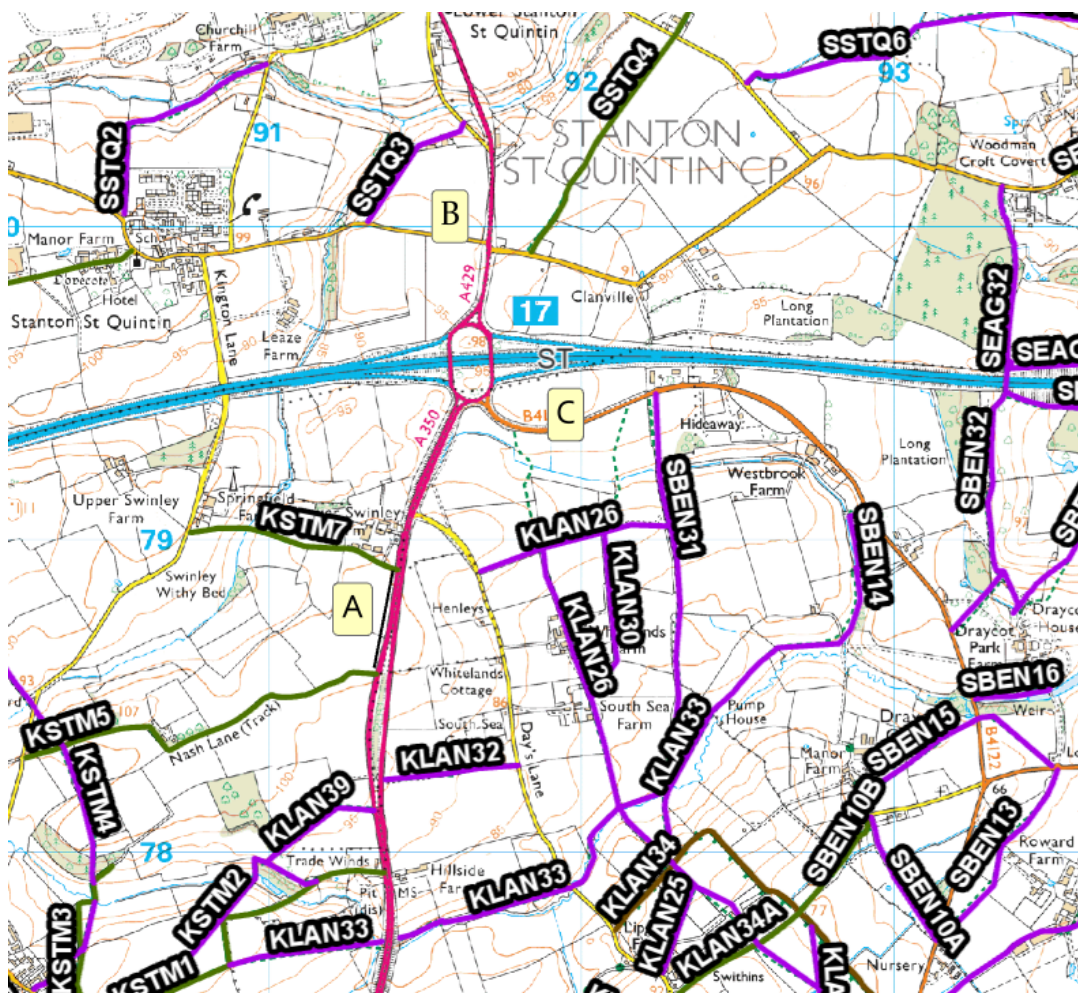
“Location A – possible bridleway link in adjacent fields to A350 to link both bridleways together to avoid main road and a possible link on the east side of A350 to link days lane top Bridleway KSTM7 but this will still involve crossing main road.

Location B – improved crossing with possible lights or horse/cycleway crossing to enable users to cross safely east/ west on road.

Location C – possible footway link from SBEN31 west and over the Junction heading north would be good to retain at least a pedestrian safe access route over this junction north/south.

Locations to be decided but upgrades on existing PROW furniture to improve access i.e. stiles replaced with kissing gates/ bridle gates within 1km of scheme.”

Figure 2-21 – Map from Countryside Access Officer



2.10.2. Response – British Horse Society

The following response was received from a local representative of the British Horse Society:

“Horse riders in Wiltshire, and indeed all over the UK, are frequently cut off from existing bridleways by even short stretches of fast or narrow road. This means that they often fear to venture out onto such bridleways that do exist. Horse riders who ride out are often middle-aged women and children, riding family horses rather than

competition horses, and they desperately need safe off-road provision and local round routes to get out into their surrounding area.

Your scheme has the potential to improve this situation around J17.

I have a proposal, which I've also referred to Sally Madgwick and Mike Crooks, special projects officer at Wiltshire Council.

My proposal would provide a very welcome missing bridleway link for walkers, cyclists and horse riders north-south over the M4 and add a welcome new connection for users of bridleways either side of J17.

This would involve:

1. providing a new bridleway link between existing bridleways KSTM5 and KSTM7 parallel to but at a safe distance from the A350, this new bridleway completely fenced off from the A350 with a permanently fenced and hedged barrier of sufficient height to make horse riders safe (the British Horse Society can advise on this).
2. providing a new bridleway link between KSTM7, leading over the new roundabout at J17 and on parallel to the A429 to join existing bridleway SSTQ4 via a suitable safe route. The same physical safeguards to protect users of this new bridleway would be required as briefly outlined in 1 above, particularly over the roundabout. A separate track would be needed here, as horse-riders cannot mix with roundabout traffic.

This new purpose-built connecting bridleway would not only allow horse riders, cyclists and walkers easily and safely to travel over the M4 to access existing off-road routes and to travel between settlements either side of the M4 via J17, it would provide a potential round route in the area for cyclists and horse riders via GRIT18 at Leigh Delamere.

Finally, and very importantly, the new link would substantially improve the currently rather fractured system of bridleways in the area."

2.10.3. Response – The Ramblers

The following response was received from a local representative of The Ramblers Association:

“Issues:

Walking north to south

1. Crossing over or under the M4: Kington Lane crosses under the M4 800m to west of J17; SBEN32 crosses over M4 1.72km east of J17. There is no pedestrian route from the A429 to the A350 to access Days Lane.
2. B4122 – two paths have been diverted so that they connect up south of new industrial/distribution centre near junction 17; and no longer reach B4122 i.e. KLAN26 and KLAN30. Combined route comes out on Days Lane at ST 91677 78896.
3. One footpath still reaches B4122 at ST 92215 79452, KLAN29. It does not connect up with other rights of way from here and the B4122 is too busy, particularly with numerous lorries accessing services and M4 using this narrow road, to allow pedestrians to use the verge safely.

Walking west to east

4. Crossing A429 between Lower Stanton St Quintin and M4 at ST 91707 79929 at junction C27 and A429 from Stanton St Quintin to access Bridleway SSTQ4 is hazardous. At busy times, nearest safe crossing point is in Lower Stanton St Quintin, at the junction of Seagry Road with A429 where there is a pedestrian island at ST 391517 80790.
5. Crossing A350 at end of Bridleway KSTM7 ST 91407 78905 to connect with Days Lane ST 91467 79076 and footpaths off Days Lane or continuing down Days Lane to Kington Langley. Crossing the dual carriageway is hazardous.

Horse-riding north to south

6. The local bridleways do not join up. There is a north-south route from Rodbourne to within 0.4km of J17 using MALW61 and SSTQ4. The nearest bridleway to the south is KSTM7, off the A350, 700m south of J17 or Days Lane, 500m south of J17

Horse-riding west to east

7. Potentially SSTQ4 would join up with SSTQ1 and SSTQ10 to the west via C27 through Stanton St Quintin. However this would involve crossing the A429 390m north of J17

8. *As in 'Walking west to east' – it would be too dangerous to ride from KSTM7 to Days Lane across the A350.*

Cycling North to south

9. *Routes are via Kington Lane from C27 or from Upper Seagry to Sutton Bengier, 3km to east, via Grange Lane and Seagry Road. Bridleway SEAG21 is impassable to cyclists due to the condition of the ground.*
10. *There is no cycle route from A429 to A350 at Junction 17 and no cycle lane south down the A350. Getting from A429 to Days Lane would be difficult and the reverse route, even more so.*

Cycling west to east

11. *See 'Walking west to east'. North of the M4, the junction of C27 from Stanton St Quintin with A429 is not configured to make it safe to cross the A429 to reach the road to Upper Seagry via Scotland Hill. An alternative route, coming from Stanton St Quintin would be to turn off C27 after Kington Lane to reach Lower Stanton St Quintin where the speed limit is lower and attempt to turn R onto the A429 or turn left then right and take the Seagry Road to reach Scotland Hill.*
12. *South of the M4 – again Bridleway KSTM7 does not easily connect with Days Lane. Bridleway KLAN36 crosses the A350 2.03km south of J17 – the cyclist would need to dismount and walk across each carriageway.*
13. *The nearest safe crossing on the A350, 3.1km south of J17, is from Kington St Michael to Kington Langley at the traffic lights onto Plough Lane. A cyclist was killed by a lorry recently, using this junction.*

Changes needed:

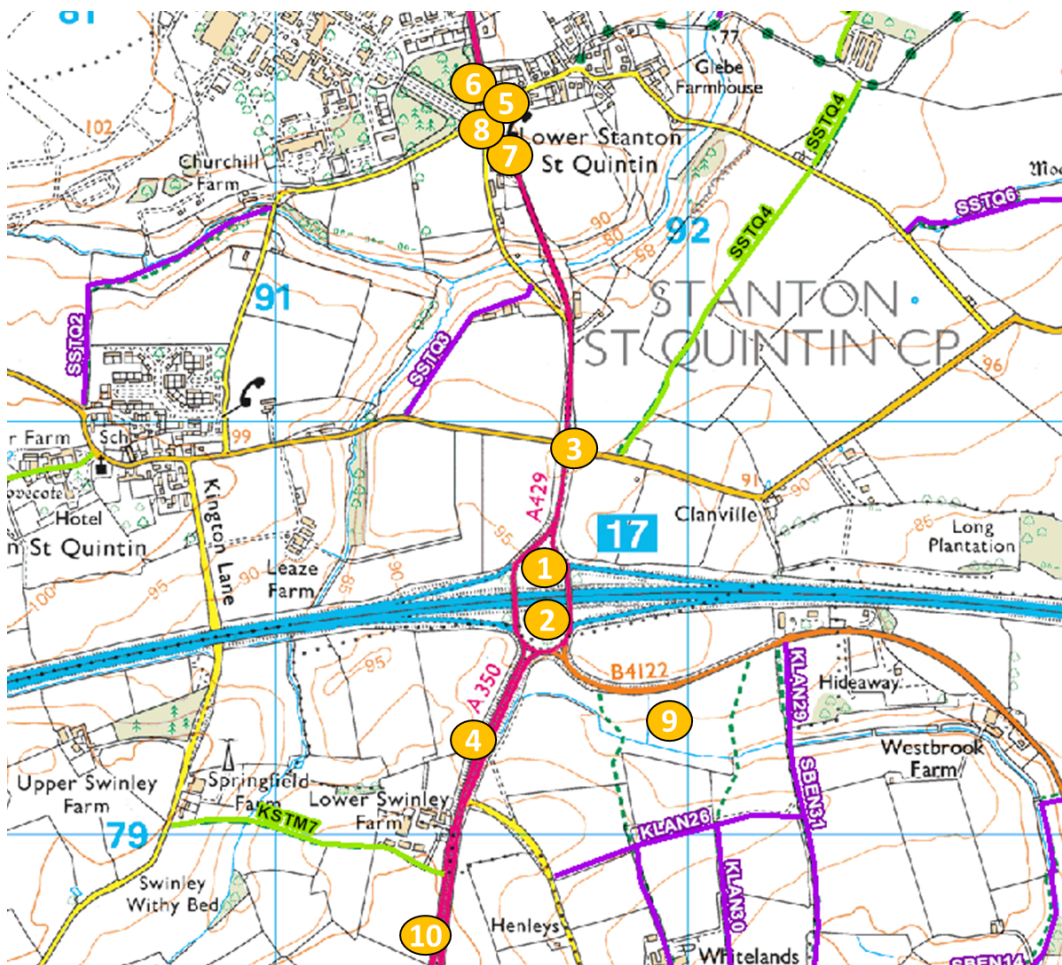
- *A cycle route joining A429 to Days Lane*
- *Remodelling junction of C27 with A429 to make it easier to cross to road to Scotland Hill for pedestrians, walkers and equestrians.*
- *Providing a safe crossing of A350 from KSTM7 to Days Lane.*
- *Possibly continue KLAN29 past depot and over M4 to Clanville – although this would only benefit horse-riders and cyclists if this section (from 4122 to Scotland) where upgraded to a bridleway.”*

3. User opportunities

Based on findings from the desktop research, site visit and stakeholder liaison, the following opportunities have been identified which should be considered as the scheme design develops. It is stressed that GG 142 encourages the identification of opportunities that are associated with the scheme but which may not be within the geographical scope of the works and thus it may not be possible to look to deliver some opportunities within the proposals. However, the identification of these opportunities is intended to allow them to be highlighted for consideration in future works.

Where possible, the location of the opportunities identified below have been included in Figure 3-1. The opportunities are not listed in any particular order.

Figure 3-1 – Locations of opportunities



3.1. Walking, cycling and horse-riding opportunities

Opportunity 1

There is an opportunity to provide a grade separated route for walking, cycling and horse-riding across the M4 at, or near to, Junction 17. This would benefit users of the nearby public rights of way, as well as residents of the local villages.

Opportunity 2

There is an opportunity to provide an at grade walking, cycling and horse-riding route across M4 Junction 17 to link the A350, A429 and B4122. Signal-controlled crossings across the junction arms would be needed, as well as walking, cycling and horse-riding facilities on the A429 (to the services) and B4122 (to the new Chippenham Gateway roundabout).

Opportunity 3

250m to the north of M4 Junction 17 on the A329 there is a staggered crossroads junction (road to the east leads to Upper Seagry, and to the west Stanton St Quintin). There is an opportunity to provide a crossing at this location suitable for use by pedestrians, cyclists and equestrians. This junction would also benefit from a reduction in speed limit together with physical measures to assist in controlling vehicle speeds in line with the reduced speed limit.

3.2. Walking opportunities

Opportunity 4

There is an opportunity to improve the existing footway provision along the A350 northbound. The current provision is narrow and overgrown and would benefit from widening to CD 143 standards, as well as inclusion of a 1.5m minimum separation distance to carriageway (due to the high speed of the road). Onward connections to either quiet roads or PRow would provide greater benefit for this improvement.

Opportunity 5

There is an opportunity to improve the pedestrian crossing facilities of the A429 in Lower Stanton St Quintin (between Church Lane and Seagry Road). This could involve reducing the speed limit (and associated physical measures to control vehicle speeds) and implementing a signal-controlled crossing.

Opportunity 6

There is an opportunity to improve the footway provision on the A429 in Lower Stanton St Quintin. In particular, the western footway on the A429 is in poor condition, with significant camber (see Figure 2-14). Improvements to the footway would improve its usability for many types of user.

Opportunity 7

There is an opportunity to reduce the speed limit of the A429 in Lower Stanton St Quintin. It currently has a 50mph speed limit. A reduced speed limit would benefit pedestrians as well as on-road cyclists but would require physical measures to assist in controlling vehicle speeds in line with the reduced speed limit.

Opportunity 8

There is an opportunity to 'tighten' the junction geometry and provide a pedestrian crossing at the Church Lane junction with the A429. Reducing the width of the junction would slow traffic speeds turning into the junction, benefiting on-road cycling and pedestrians crossing the road. There are existing dropped kerbs for pedestrian use; however, the crossing distance is wide (around 17-18m) and visibility is poor, particularly when crossing from south to north.

3.3. Cycling opportunities

Opportunity 9

There is an opportunity to provide a cycling route connecting the new Chippenham Gateway Development to Days Lane, for cycling to Kington Langley and onward towards Chippenham. For example, this could involve upgrading PRow KLAN26 for cycling use.

3.4. Horse-riding opportunities

Opportunity 10

There is an opportunity to connect the bridleways KSTM7 and KSTM5 along the A350, to provide a circular route for equestrians via Stanton Lane. This would require physical separation from passing traffic to avoid horse being startled.

Opportunity 11

There is an opportunity to link the bridleways KSTM7 and SSTQ4 via M4 Junction 17. The existing footway provision along the A350 would need upgrading for use by equestrians in line with CD 143 (including widening, increasing the separation distance to carriageway and almost certainly using fencing to provide a visual screen), as well as new provision at M4 Junction 17 and along the A429.

4. Next steps

4.1. Collaborative design

The material contained within this assessment report will be used to help the designer confirm engineering solutions with due regard for the needs of pedestrians, cyclists and equestrians as part of the M4 Junction 17 improvements scheme.

As part of the standard WCHAR process, the opportunities identified within this report will be reviewed as the scheme design progresses, alongside any new opportunities identified as a result of the developing scheme design.

This WCHAR report has been produced alongside the Outline Business Case (OBC) for the scheme. Opportunities from the WCHAR report will be considered as part of the Full Business Case (FBC).

4.2. Further outputs

A walking, cycling and horse-riding review report will be produced at the end of the detailed design phase to document the discussions and decisions made during the design process.


The review report will include a record of discussions in the collaborative working of the WCHAR team with the representatives of the rest of the highway design team.

5. WCHAR assessment team statement

As Lead Assessor, I confirm that this walking, cycling and horse-riding assessment report has been compiled in accordance with DMRB GG 142.

Lead Assessor

Name: Megan Hansen

Signed: 

Date: June 2021

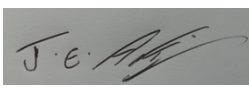
Assessor

Name: Jozef Denby

As design team leader for the M4 Junction 17 scheme, I confirm that the assessment has been undertaken at the appropriate stage of scheme development and that the wider design team has been involved in the process.

Design team leader

Name: Jamie Adkins

Signed: 

Date: June 2021

Rob Hunt
Atkins Limited
The Hub
500 Park Avenue
Aztec West
Bristol
BS32 4RZ

rob.hunt@atkinsglobal.com

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