Stakes Hill Road, Waterlooville

Improvements to Stakes Hill Road NCN222

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Image: Walk Wheel Cycle Trust

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About this report

Walk Wheel Cycle Trust

Walk Wheel Cycle Trust is the charity making it possible for everyone to walk, wheel and cycle.

We work directly with communities to make change happen. Then we evidence the impact to influence policies to push those changes further.

Because people-powered movement changes everything. Our health. Our wellbeing. Our world. www.walkwheelcycletrust.org.uk

Walk Wheel Cycle Trust is a registered charity no. 326550 (England and Cymru), SC039263 (Scotland) and 20206824 (Republic of Ireland)

Report partner

This report has been written with the cooperation of Hampshire County Council and Havant Borough Council.

Executive summary

This feasibility study, funded by Active Travel England (ATE), assesses opportunities to improve walking, wheeling and cycling along **Stakes Hill Road, Waterlooville**, a key section of National Cycle Network Route 222 (NCN222). The route connects residential neighbourhoods, schools and Waterlooville town centre, yet currently performs poorly for safety, comfort and accessibility. High traffic speeds and volumes, limited crossing opportunities, and inconsistent active travel provision create significant barriers for local residents, particularly children and families travelling to nearby schools.

This report provides a comprehensive evidence base, including automatic traffic counter (ATC) speed and volume surveys, CrashMap data, automatic number plate reader (ANPR) origin–destination analysis, manual counts, demographic mapping and community and stakeholder engagement.

Using these datasets, the study identifies the following key issues:

- **Vehicle speeds regularly exceed the 30mph limit**, creating a critical fail under the ATE Route Check.
- **Daily traffic flows are high**, with over 7,000 vehicles recorded, and more than half of all trips identified as through-traffic rather than local access.
- **Six schools lie within the study area**, generating substantial peak-time pressures, widespread pavement parking and increased conflict between road users.
- **A significant proportion of pupils live within walking distance**, yet still travel by car, highlighting the potential for modal shift if safer, more direct routes are provided.
- **Existing cycling provision is fragmented**, with no protection for cyclists along the northern section of Stakes Hill Road and poor crossing opportunities for pedestrians.

Four design options have been developed and assessed for safety, comfort, directness, accessibility, environmental impact, deliverability and cost. Following this, the study has identified **Option 3** - designing for a protected cycling space alongside footway improvements - represents the most favourable option across a broad range of criteria, and avoids the requirement for a bus gate which may impact deliverability.

The study concludes that improving Stakes Hill Road presents a major opportunity to deliver a high-quality active travel corridor connecting communities to Waterlooville town centre. A preferred option should now be selected through engagement with local residents, schools, councillors and other key stakeholders. Further steps include producing designs with associated surveys, carrying out further engagement with local people and undertaking an accessibility audit to ensure the route is inclusive for all users.

Contents

1. Introduction

Purpose of this Study

This study, funded by Active Travel England (ATE), will provide recommendations and assess the feasibility of design options to make Stakes Hill Road, Waterlooville a safer and more attractive route for walking, wheeling and cycling journeys, focussing on the section north of the Frendstaple Road roundabout.

It will:

- Provide background and contextual information about Stakes Hill Road and Waterlooville, and the wider National Cycle Network
- Provide an overview of traffic speeds and flows
- Make design recommendations and identify opportunities and challenges that come with each option
- Assess the current and future route against the ATE route check tool
- Provide an overview of key trip attractors and generators including school travel data
- Summarise what Waterlooville residents told us about the route and wider residential streets, and the changes they'd like to see

Walk Wheel Cycle Trust and the National Cycle Network

Walk Wheel Cycle Trust are custodians of the National Cycle Network, a UK-wide network of traffic-free paths for everyone, connecting cities, towns and countryside.

We bring people together to create places with clean air and green spaces, where friends and facilities are just a short walk away. We believe everyone should be able to thrive without having to use a car.

Walk Wheel Cycle Trust's vision is to create a UK-wide network of safe and accessible traffic-free paths for everyone.

We want the Network to:

• be wide enough for all users

• be cared for and well maintained

• have a smooth surface

• be clearly and consistently signed

• be fully accessible to everyone

• feel safe

The National Cycle Network brings huge benefits to the UK's economy and improves people's health and wellbeing. In 2019-20 an estimated:

• 4.2 million people used the network

• 70.9 million car trips were saved by using the Network

• £1.64 billion was spent in local business by leisure and tourist users

• £21.5 million was saved by the NHS through the Network's impact on people's health

Active Travel in the UK

In July 2020 the UK government published 'Gear Change: a bold vision for cycling and walking' outlining its intent to kick off 'the most radical change to our cities since the arrival of mass motoring'. This ambitious plan - backed up by £2 billion of new funding for walking and cycling - sets out a vision a step change in provision for active travel in this country.

The report notes the contribution made by active travel to:

• Health and wellbeing

• Easing congestion

• Increasing footfall for local businesses

• Improving environmental and air quality

• Reducing transport CO2 emissions

In particular the report encourages the use of bicycles for everyday trips that replace car journeys - not simply as a form of recreation.

Policy Context in Hampshire

Havant Borough LCWIP – Local Delivery of Active Travel Corridors

The Havant Local Cycling and Walking Infrastructure Plan (LCWIP), published in 2023 translates LTP4's strategic vision into local delivery, by identifying priority walking and cycling corridors. Stakes Hill Road forms part of the corridor "361 Wellington Retail Park – Purbrook Way", ranked as the 5th highest priority cycle corridor.

Local Transport Plan 4 (LTP4) – Strategic Framework and Funding Alignment

Hampshire's Local Transport Plan 4 (LTP4) published in February 2024, sets out a vision for transport and travel infrastructure to 2050. It establishes the guiding principles that address climate change, environmental sustainability, economic growth, health and equality, following Hampshire County Council's Climate Emergency declaration in 2019.

LTP4 provides a county-wide strategic framework for prioritising interventions and securing funding for transport improvement schemes. This study aligns with the Local Plan by supporting its goals to reduce carbon emissions and improve public health via the way people travel.

Havant Local Plan

The Havant Local Plan sets out the Borough's vision and framework for future development. This includes transport objectives and strategic improvements to highway design, the PROW network and public transport operations. Active travel corridors identified in the LCWIP are embedded within the Local Plan, ensuring that new developments are connected to sustainable transport networks across the Borough.

Climate Change Strategy and Action Plan – Hampshire's Net Zero Commitment

Havant's Climate Change Strategy and Action Plan (to 2030) underpins the rationale for reducing emissions and achieving net-zero goals. It prioritises active travel and public transport as key measures to make low-carbon travel more attractive than private car use. Recommendations made in this study will support the Action Plan by enabling modal shift to active travel, reducing transport emissions and contributing to greater climate resilience.

Havant Active Wellbeing Strategy – Health and Equality Outcomes

The Havant Active Wellbeing Strategy (2025–2030) provides a blueprint for integrating health and wellbeing into local priorities, including transport and environment. It highlights the role of active travel in reducing inactivity, improving mental and physical health, and addressing inequalities in access to safe routes.

By improving walking and cycling infrastructure, this study supports the strategy's goals of creating healthier communities and reducing barriers for disadvantaged groups.

Figure 1 Bus infrastructure on Stakes Hill Road

2. Project Background

Local Travel Network Review

Road Function and Strategic Context

North of Frendstaple Road, Stakes Hill Road is a C-road that serves as a key north–south corridor within Waterlooville, connecting residential neighbourhoods to the town's commercial centre. The road predominantly operates under a 30mph speed limit, with designated 20mph zones near schools to improve safety for vulnerable road users.

The A3(M) lies to the east of Waterlooville, which connects Portsmouth and the south coast with Petersfield, Guildford and London, positioning Stakes Hill Road centrally within the local transport network. Its location and function make it a key travel corridor for motorised traffic, primarily serving as a through-route between residential and commercial zones.

Pedestrian Infrastructure

Footways are provided on both sides of the carriageway, supporting pedestrian movement throughout the corridor. The surrounding area comprises a dense network of residential streets, many of which provide direct access to local schools. This reinforces the importance of Stakes Hill Road in facilitating school-related travel and local connectivity.

Public Transport Provision

Stakes Hill Road is served by First Bus route 7 (Figure 1), which operates approximately every 15–30 minutes between Portsmouth city centre and Waterlooville. A dedicated school service (Stagecoach 654) also operates along the corridor, serving Oaklands Catholic School. Despite the frequency of services, there are no formal bus lanes along the carriageway, which may impact journey time reliability during peak periods.

Active Travel Infrastructure

At present, there is no cycling provision along the northern section of Stakes Hill Road. Shared use provision exists between the Fox & Hounds Pub, and Durham Gardens, as well as further south of the study area. Cyclists are

required to share the carriageway with motorised vehicles, which presents safety concerns due to the volume of traffic, frequent side road junctions, and driveway access points. However, Hampshire County Council has implemented cycle lanes within Waterlooville's commercial centre and along London Road. These existing facilities present an opportunity to improve network cohesion by extending active travel infrastructure along Stakes Hill Road, supporting modal shift objectives and enhancing accessibility for cyclists and pedestrians.

Public Rights of Way (PRoW)

Formally adopted Public Rights of Way in the immediate area are limited. However, an informal network of footpaths exists, providing additional connectivity between residential streets and key trip attractors, particularly schools. These informal routes play a valuable role in supporting local walking journeys and could be enhanced through wayfinding or surface improvements. Please refer to Figure 3.

National Cycle Network (NCN)

Stakes Hill Road forms part of the National Cycle Network Route 222, which branches from the future NCN Route 22 (intended to connect London to Portsmouth). NCN222 follows an on-road alignment along Stakes Hill Road, requiring cyclists to share the carriageway with general traffic. The route is characterised by multiple junctions, side roads, and private driveways, which increase the risk of conflict and reduce the attractiveness of the corridor for less confident cyclists. Please refer to Figure 3.

Figure 2 Stakes Hill Road junction with Warfield Avenue where NCN222 continues north-east

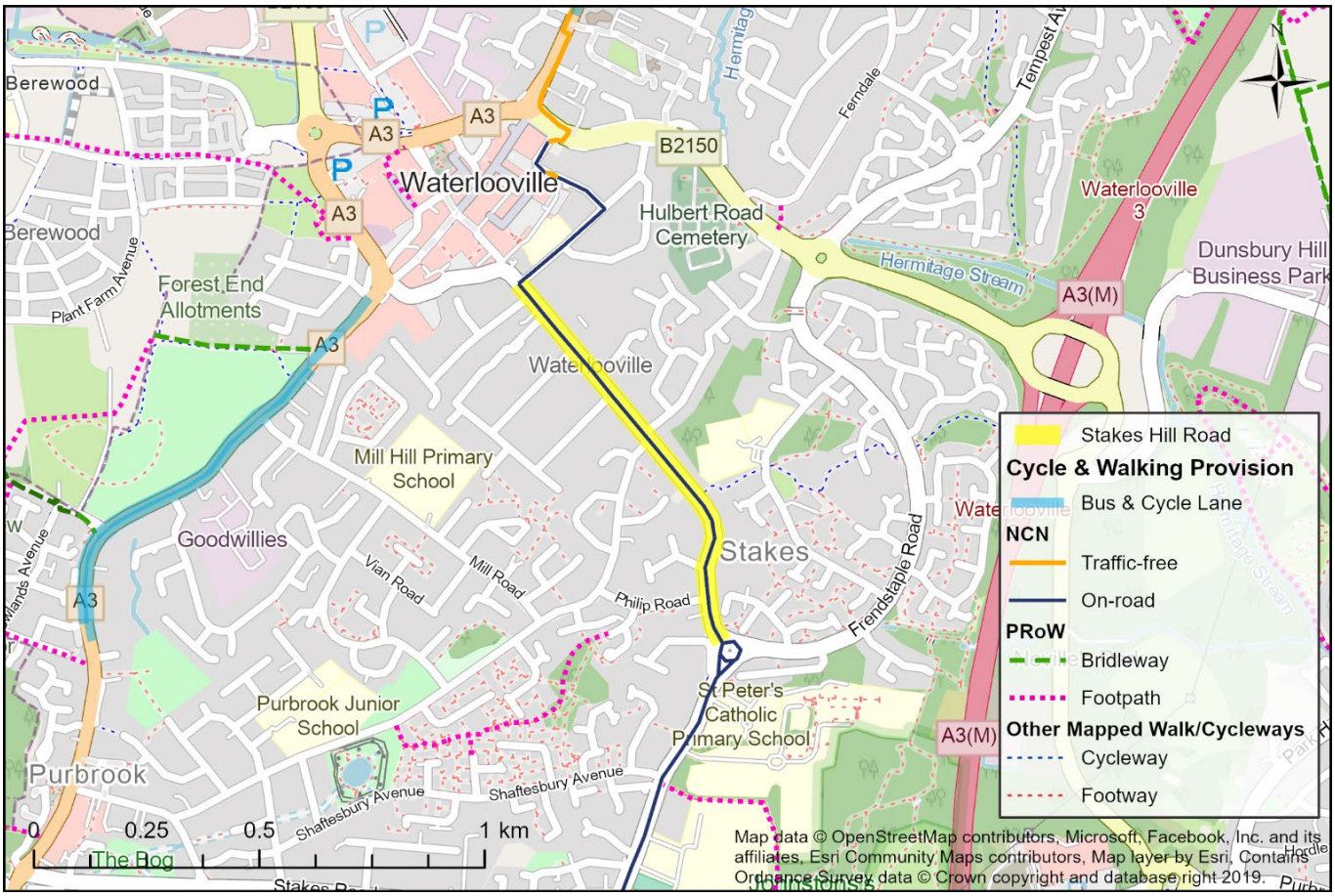


Figure 3 Existing walking, wheeling and cycling provision near Stakes Hill Rd.

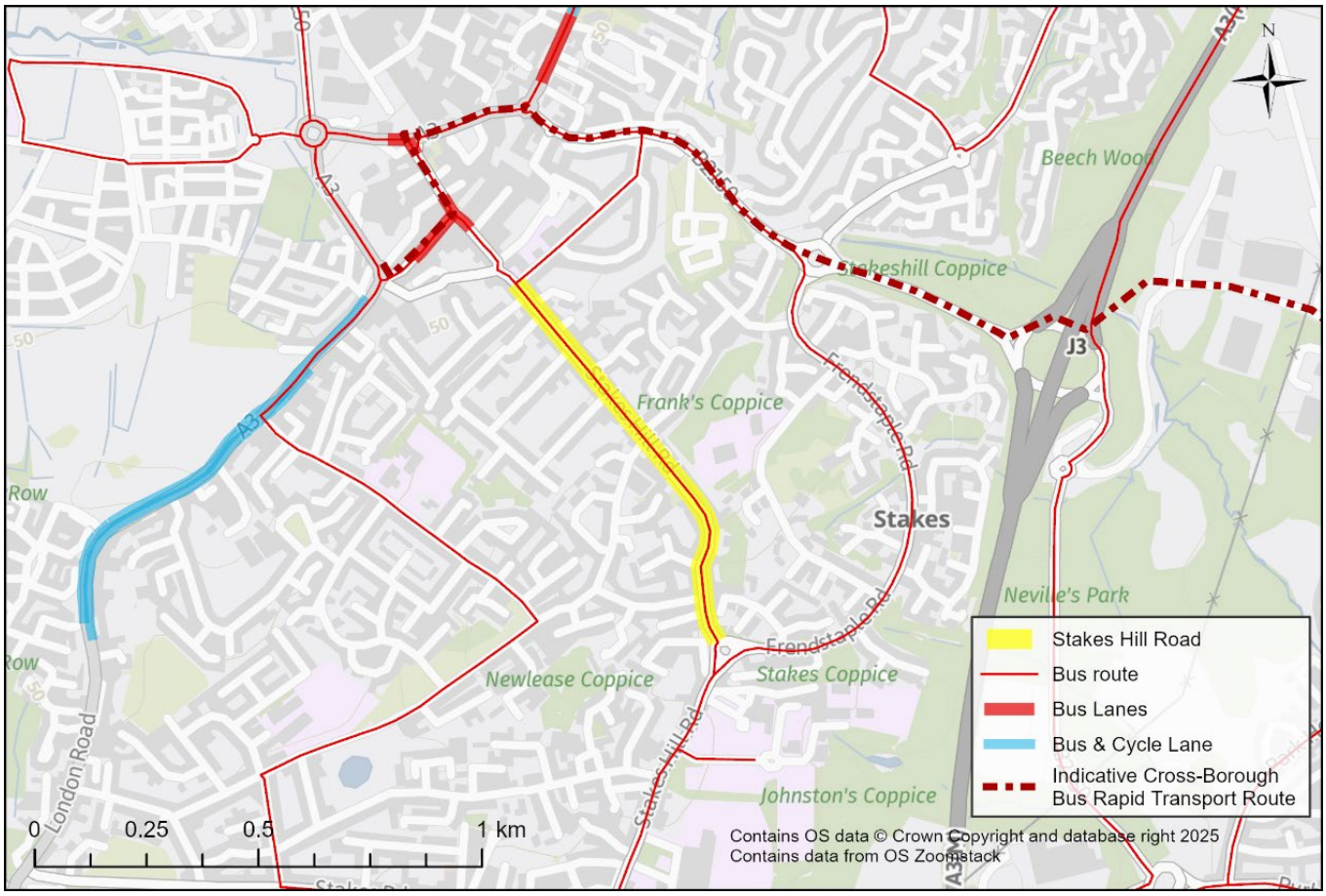
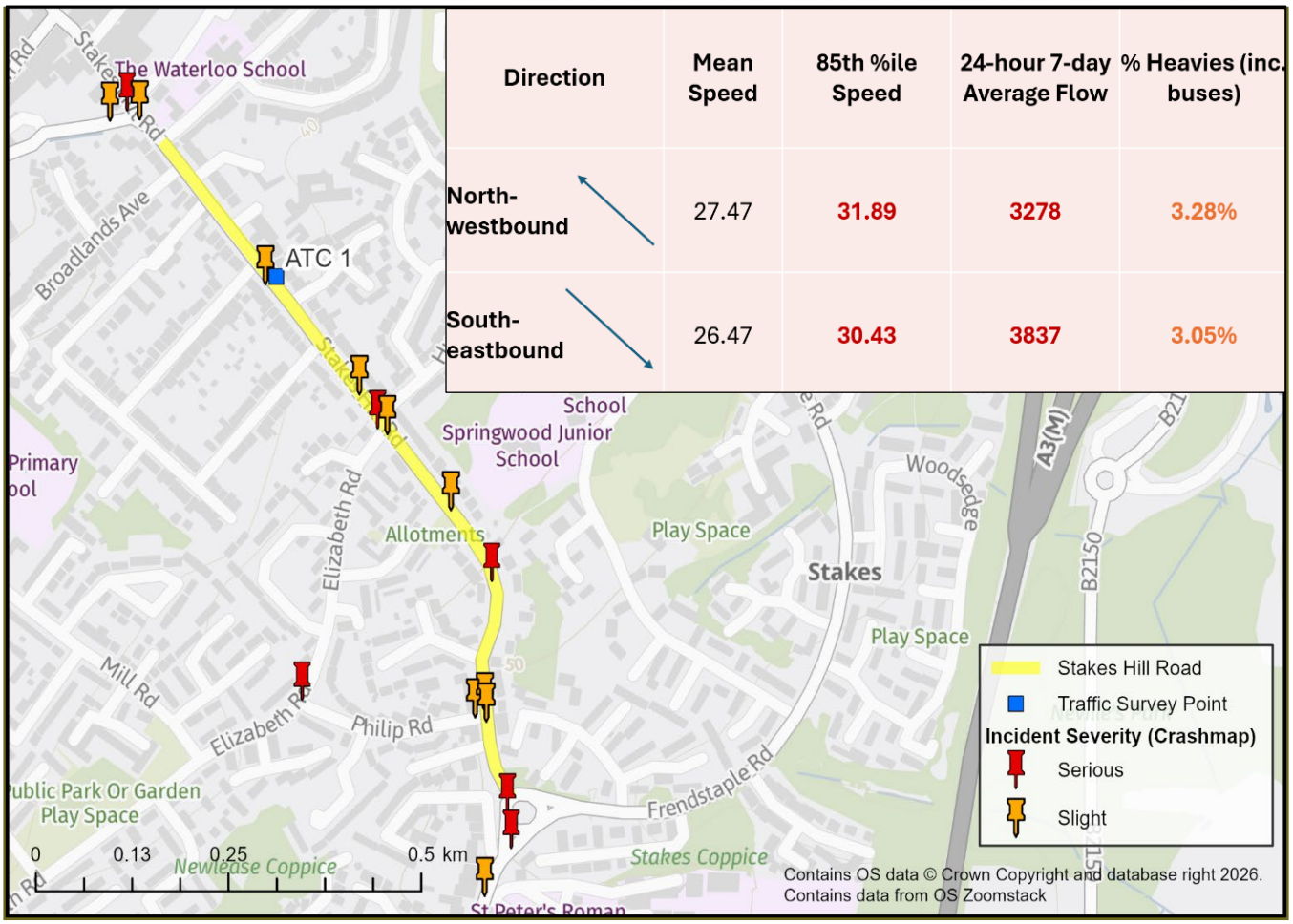


Figure 4 Existing bus infrastructure along and close to Stakes Hill Rd.

3. ATC Surveys

An Automatic Traffic Count (ATC) was conducted on Stakes Hill Road (see Figure 5 for ATC survey site) over a 9-day period from 25th February- 5th March 2025. The posted speed limit at this location is 30mph. All figures listed are based on a 7 day average.



Direction	Mean Speed	85th %ile Speed	24-hour 7-day Average Flow	% Heavies (inc. buses)
North-westbound	27.47	31.89	3278	3.28%
South-eastbound	26.47	30.43	3837	3.05%

Figure 5 Traffic speed/volume data from ATC surveys overlayed with CrashMap data.

Traffic Count & Speed

ATC surveys indicate that vehicle speeds and volumes are consistently high:

- 85th percentile speeds were 31.9mph northbound and 30.4mph southbound, exceeding the 30mph limit. Where cyclists share the carriageway with motorised vehicles this is considered a critical risk to users.

- Speeds peaked at 35.3mph around 6am, suggesting that early morning conditions may present a greater risk for pedestrians and cyclists.

Daily traffic volumes averaged 3,278 vehicles per day northbound and 3,837 southbound, with heavy vehicles comprising 3.28% and 3.05% respectively.

Peak hour flows, with approximately 702 vehicles between 8-9am in weekdays and 708 between 4-5pm in weekdays. 669 vehicles were recorded in weekdays between 3-4 pm, corresponding to commuter and school travel periods. These patterns highlight the importance of providing safe, continuous active travel infrastructure that accommodates vulnerable users, particularly children, during these times of highest demand.

Crash Map Data

CrashMap[1] data from the last 5 years (2020-2024) shows a number of both serious and slight injuries along Stakes Hill Road. The 6 recorded slight incidents (orange pins shown on Figure 5) appear to be clustered around side road junctions (Figure 6) and crossing points, which could indicate the need for targeted interventions such as junction redesign or speed management.

Figure 6 Side road junction with Phillip Road. Credit: Walk Wheel Cycle Trust

[1] CrashMap - UK Road Safety Map

Origin and Destination Data

An Automatic Number Plate Recognition (ANPR) survey was conducted on 26–27 February 2025 to analyse vehicle movements along Stakes Hill Road and adjacent routes within the Waterlooville study area. Six ANPR sites were deployed (see Figure 7), including two primary nodes at the southern and northern ends of Stakes Hill Road (OD1 and OD2) and four secondary nodes on connecting side roads.

Across the two-day period, 23,209 vehicle plates were captured, with an inbound match accuracy of 88%, which is considered high for ANPR surveys. The average daily number of vehicles counted across the area was 11,604, and 99% of trips between nodes occurred within 10 minutes, indicating predominantly through movements rather than local stops.

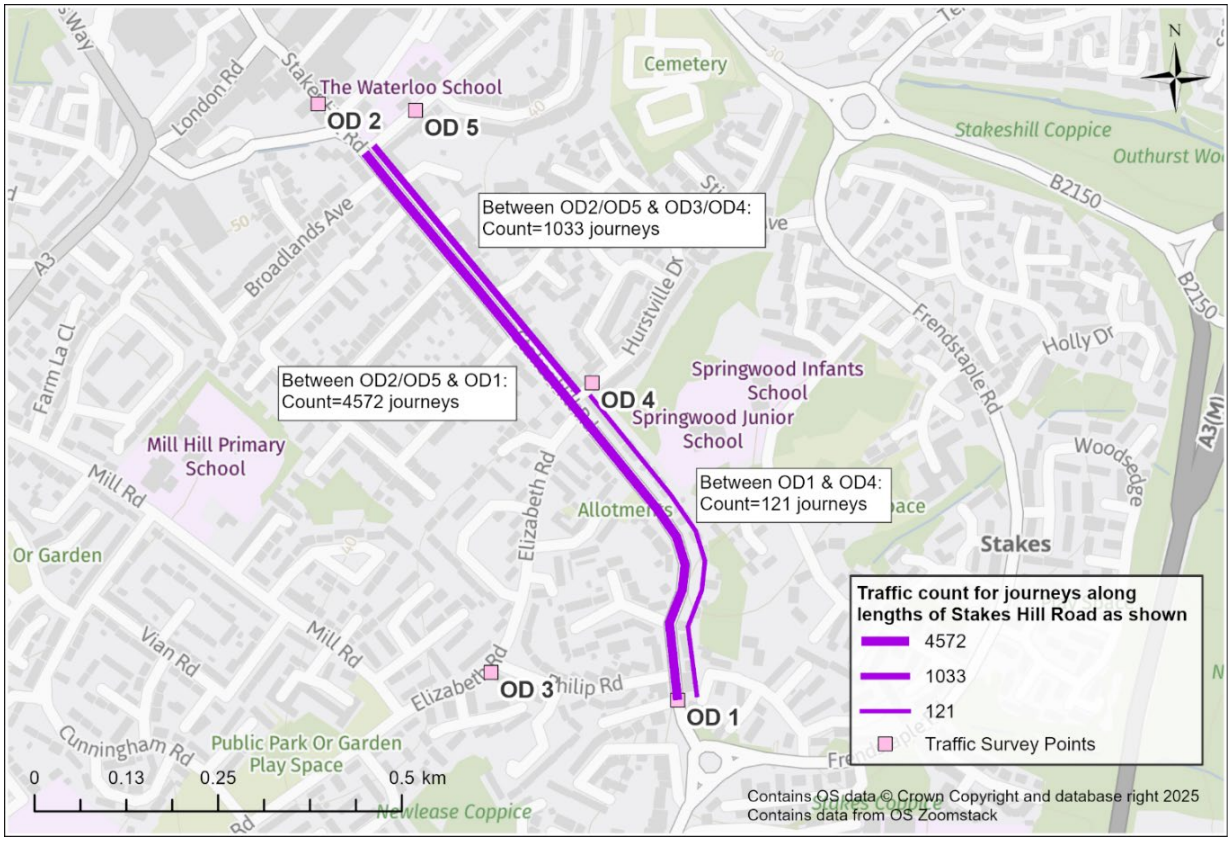


Figure 7 Total trips (both NB and SB) along Stakes Hill Road between considered sites

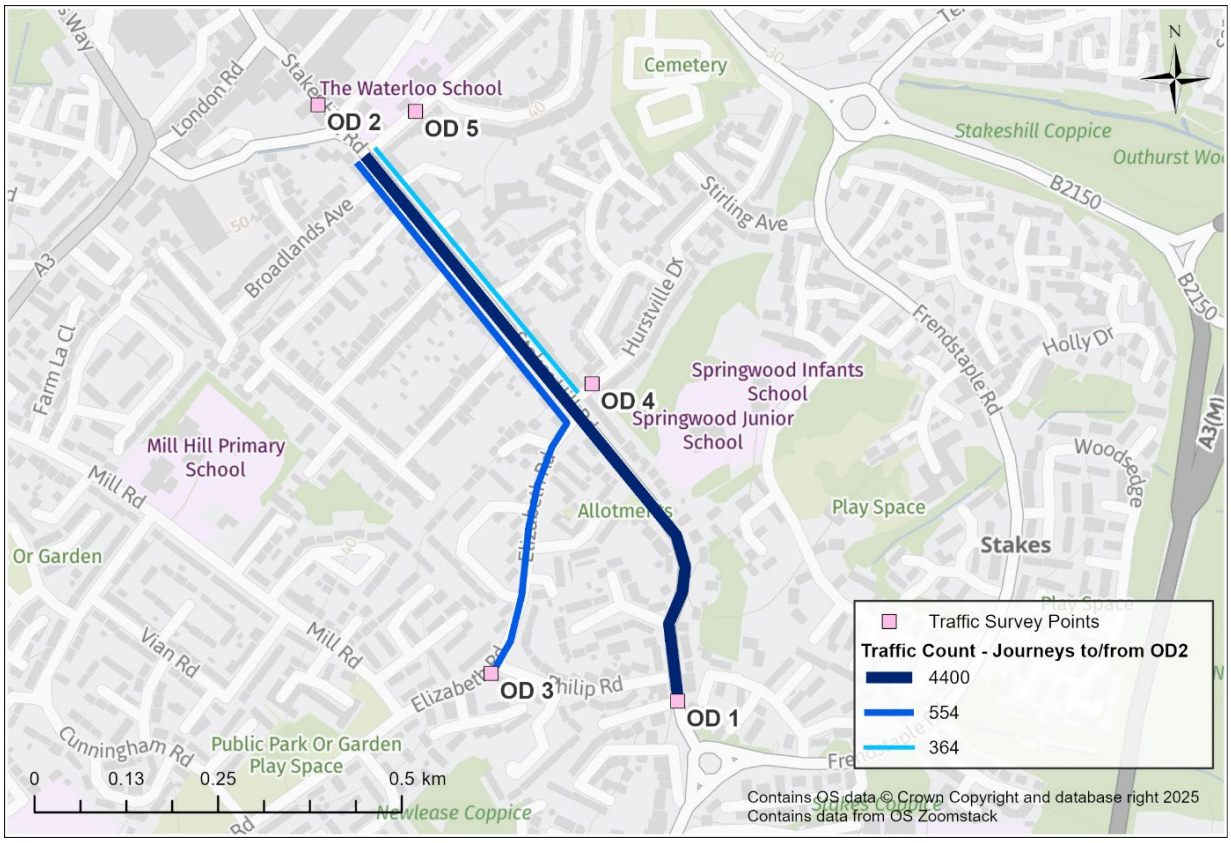


Figure 8 Total trips (both NB and SB) from OD 2 to other sites

Data Processing

The analysis uses the data from 26th March 2025 and includes only trips passing two nodes within ten minutes. Approximately 114 trips exceeded this threshold and were excluded. Further omissions were applied to ensure the data reflects movements along Stakes Hill Road only:

- Trips between OD2 and OD5 were excluded as these are unlikely to use a significant proportion of Stakes Hill Road.
- Trips between OD1 and OD3 were removed because, although significant in number, they likely use Phillip Road rather than Stakes Hill Road.
- Survey site OD6 has not been considered in this analysis as it is an internal point within the ANPR survey area, and is not included on the map.

- Same-node trips (for example, OD1–OD1) were excluded as these likely indicate short local visits.

A summary of these adjustments and the resulting trip totals for journeys under ten minutes is provided in Table 1, with the total number of counted trips shown in Table 2.

Table 1 OD trip data removed from analysis	
OD Data removed	**Trips Removed**
OD 1-3	2602
OD 2-5	451
OD 6	1433
Same OD Trips (i.e. 1-1/2-2)	237
Total Removed	4723

Table 1 ANPR Trip data included in OD analysis		
OD Type	**OD Pairing**	**Trip Count**
Total Trips OD 2		**5318**
	Trips OD2/OD1	4440
	Trips OD2/OD3	554
	Trips OD 2/OD4	364
Total Trips OD5		**287**
	Trips OD5/OD1	172
	Trips OD5/OD3	95
	Trips OD5/OD4	20
Total Trips OD4 & OD1		**121**
Total Trips OD4 &OD 3		**808**
Total Counted		**6534**

Key findings

Analysis of the ANPR survey data highlights several important patterns in vehicle movements:

- Through-traffic dominates trips along Stakes Hill Road. Approximately 58.5% of all trips under 10 minutes are through movements along Stakes Hill Road, rather than local access trips (see Figures 7 & 8). This confirms the road's role as a strategic connector rather than a purely local street.
- A slightly higher proportion of southbound trips which could be linked to onward circular routes.
    - Southbound flows (from OD2/OD5 toward OD1/OD3/OD4) account for approx. 2994 (31.2%) of trips per day
    - Northbound flows (from OD1/OD3/OD4 toward OD2/OD5) represent 2611(27.2%.)
- There are a number cross-route trips, and the majority of these are via Elizabeth Road:
    - Although relatively minimal compared to NB/SB flows, a proportion of east–west trips occur between OD4 and OD3 (808 trips, Figure 10), and some trips originate from the north of Stakes Hill Road (OD2 & OD5) to OD3 (649 trips, Figure 9).
    - This emphasizes the need for suitable crossings at the junction of Elizabeth Road for pedestrians and cyclists, supporting east–west connectivity.
- There are very few partial trips along Stakes Hill Road, reinforcing that most traffic uses the full length of the corridor. For example:
    - Trips between OD4 &OD1 are minimal with 121 trips (Figure 7) and trips between OD 4 & OD 2 is 364 in total (Figure 8)

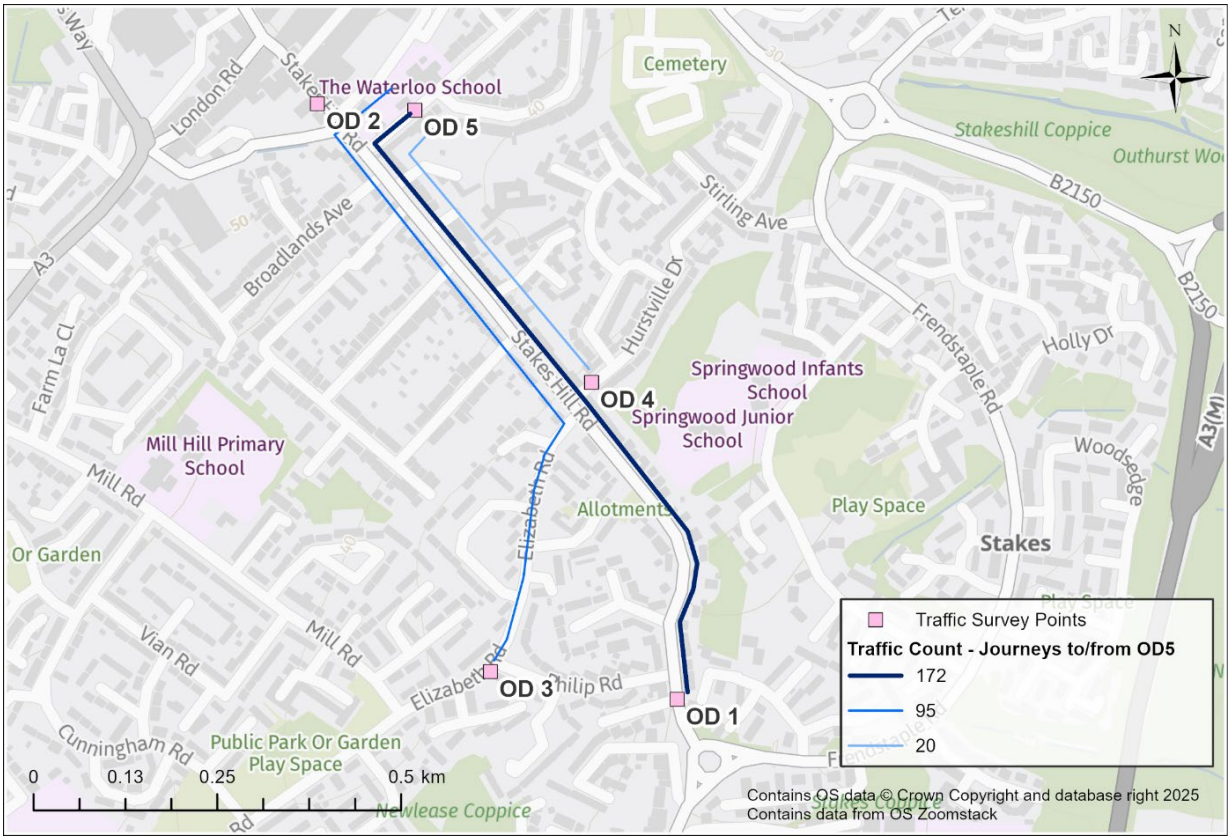


Figure 9 Total trips to and from OD 5

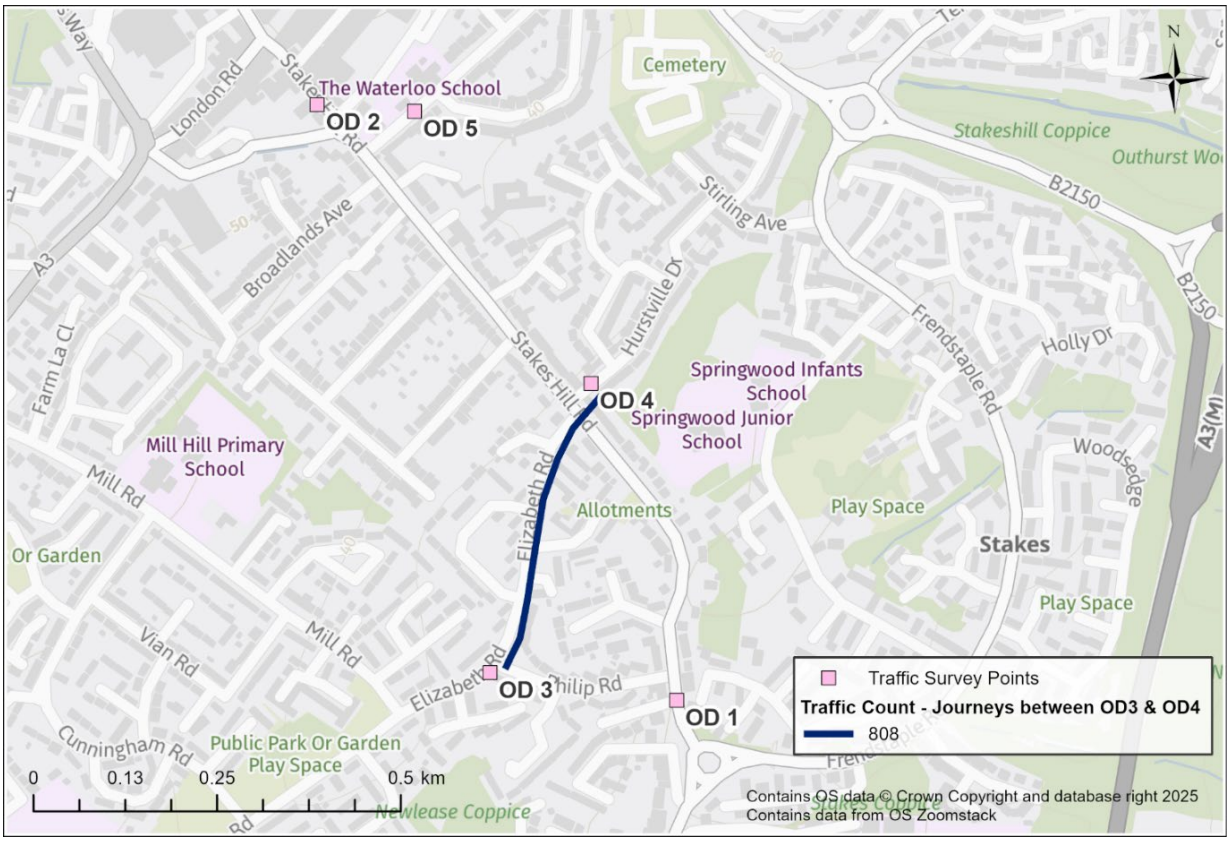
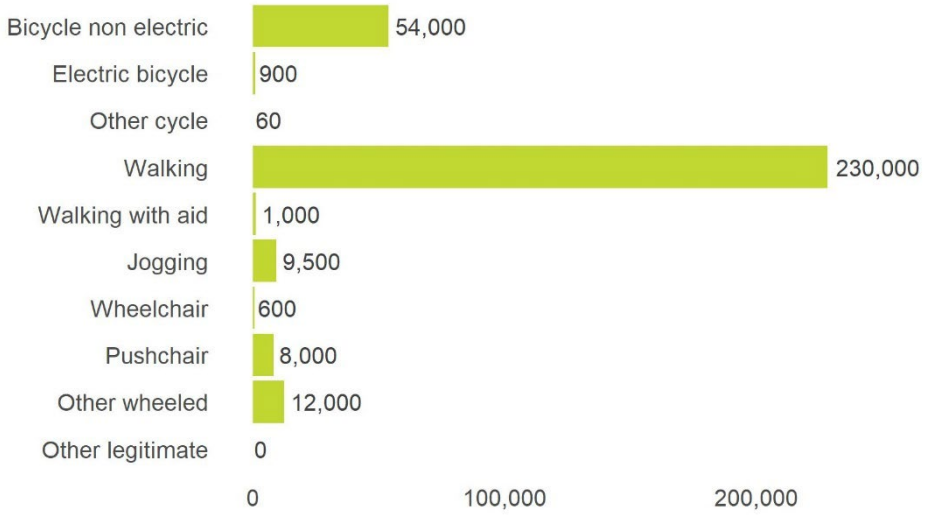


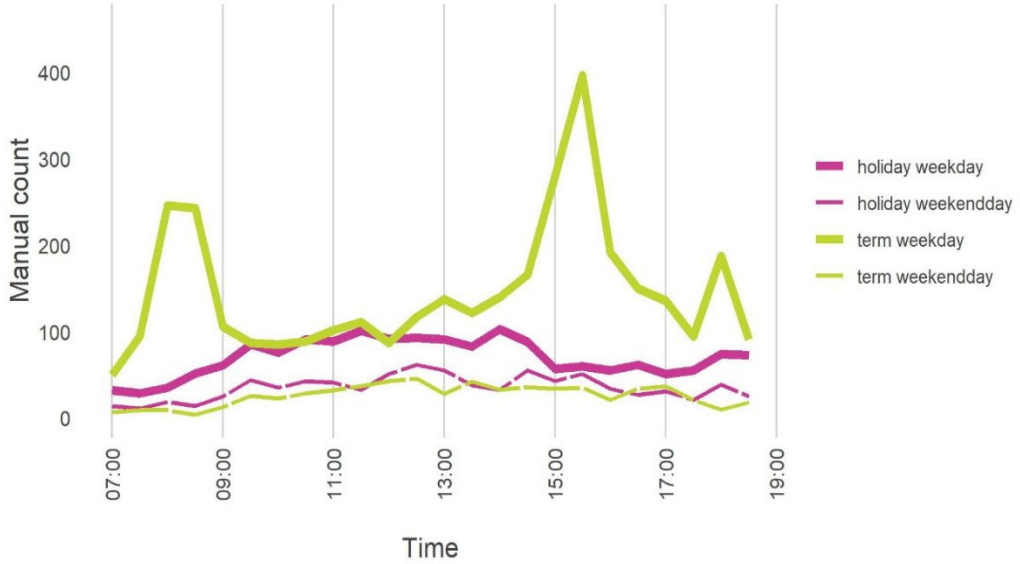
Figure 10 Total trips between OD4 and OD 3

4. Video Manual Count (VMC)

Video Manual Count data was commissioned by Walk Wheel Cycle Trust's Research and Monitoring Unit for a 10-day period in April 2025, spanning both term-time and holiday periods. The survey recorded the number of people and patterns of route users travelling by a range of active travel modes, to paint an accurate picture of current annual route use.

VMC results





Figures 11 & 12 Number of trips by active travel modes

Daily average counts

The above results were collected to provide a yearly picture of trips by active travel modes along Stakes Hill Road, to support ongoing monitoring of future interventions along the route, and their impacts.

The annual usage estimate equates to a daily average of the following:

- Bicycle non-electric: 147
- Electric bicycle: 2.5
- Other cycle: 0.2
- Walking: 630
- Walking with aid: 2.8
- Jogging: 26
- Wheeling, wheelchair or mobility aid user: 1.7
- Wheeling, pram / pushchair: 22
- Wheeling, other: 33

5. About the Current Route

Demographics

The demographic spread shown in Figure 13, highlights Stakes Hill Road as a key connector within a mixed-use area, balancing residential neighbourhoods with nearby employment opportunities and community facilities.

- **Residential Population:** The area immediately surrounding Stakes Hill Road is predominantly residential, with a mostly moderate to high population density (145–450 Usual residents per square kilometre).
- **Workplace Population:** Employment hubs are concentrated in zones bordered by light to dark blue, primarily to the north of Stakes Hill Road. These areas support workplace populations ranging from 150 to over 1,300, suggesting a mix of local businesses and larger employment sites.
- **Community Infrastructure:** Key amenities including schools and community centres are located on the residential streets surrounding Stakes Hill Road, reinforcing its role as a central corridor for both residential life and access to services.

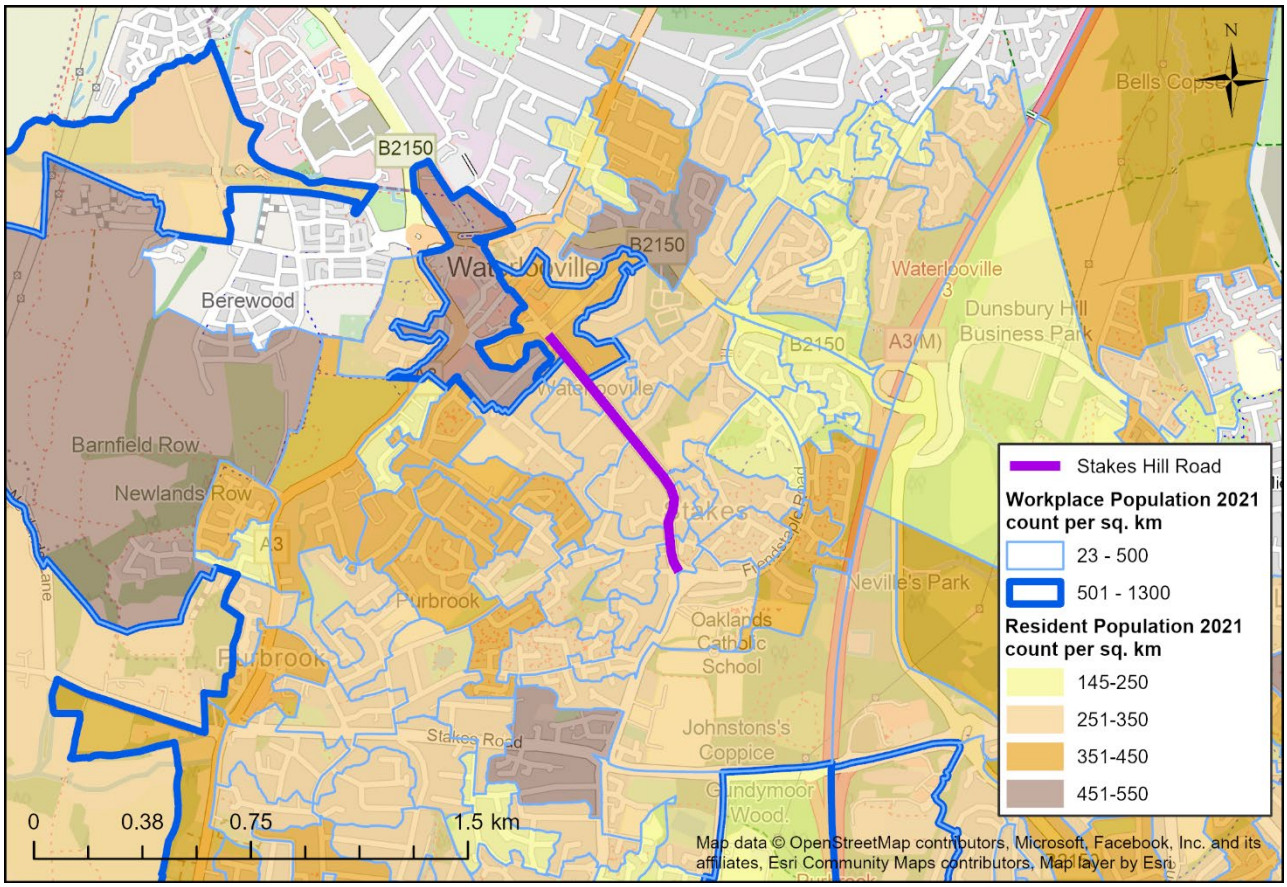


Figure 13 Distribution of residential and workplace populations surrounding Stakes Hill Road (highlighted in yellow)

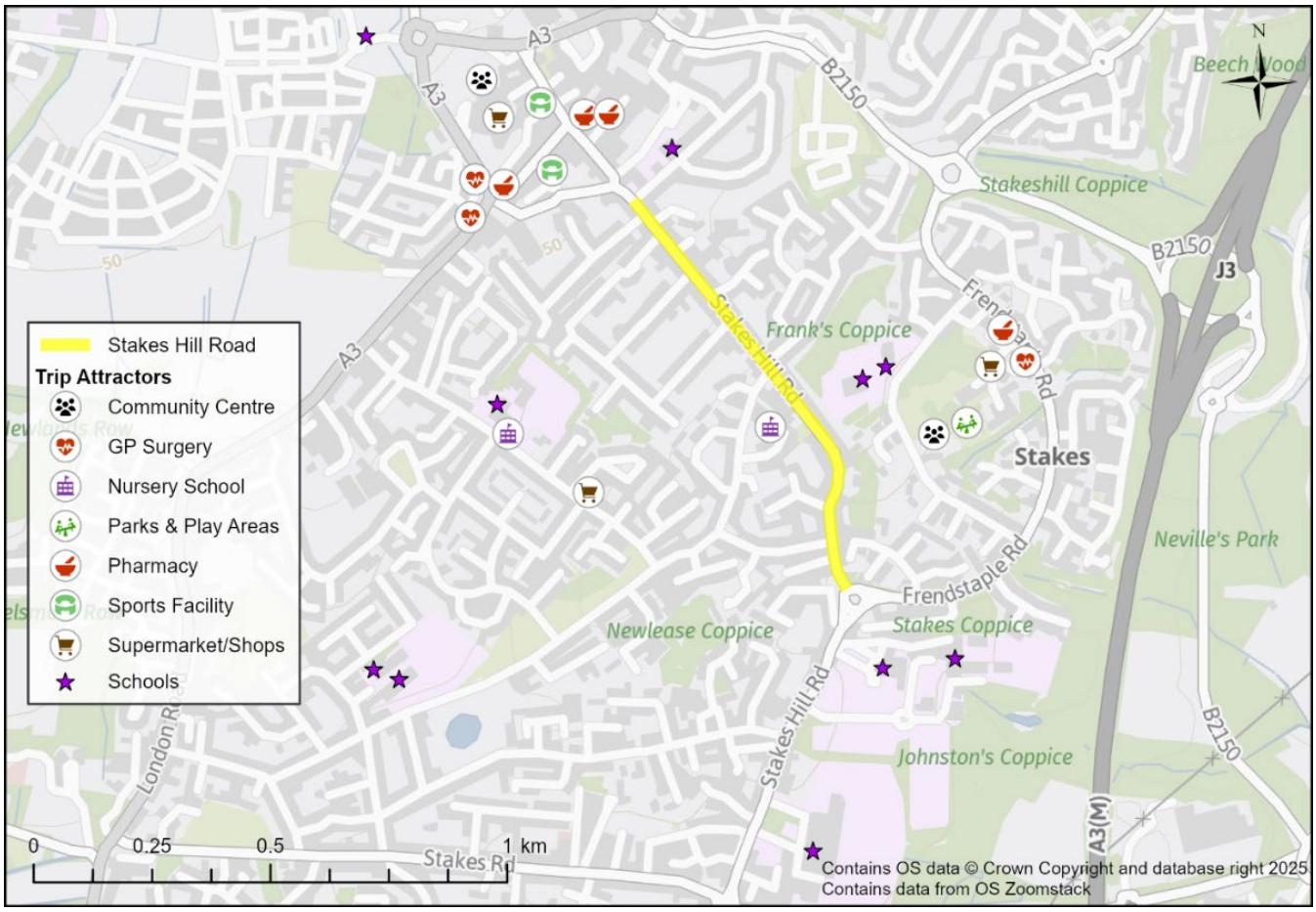


Figure 14 Locations of key trip attractors in the Waterlooville study area, including schools, shops, healthcare facilities, and recreational spaces, in relation to Stakes Hill Road.

Key Trip Attractors & Generators

The map above (Figure 14) highlights the distribution of destinations likely to generate trips near Stakes Hill Road. Schools and nurseries are located either side of the corridor (see Figure 15), along with a small number of green spaces. Many GP surgeries, pharmacies and other retail/community centres are located in the centre of Waterlooville, this is further explained in Table 3.

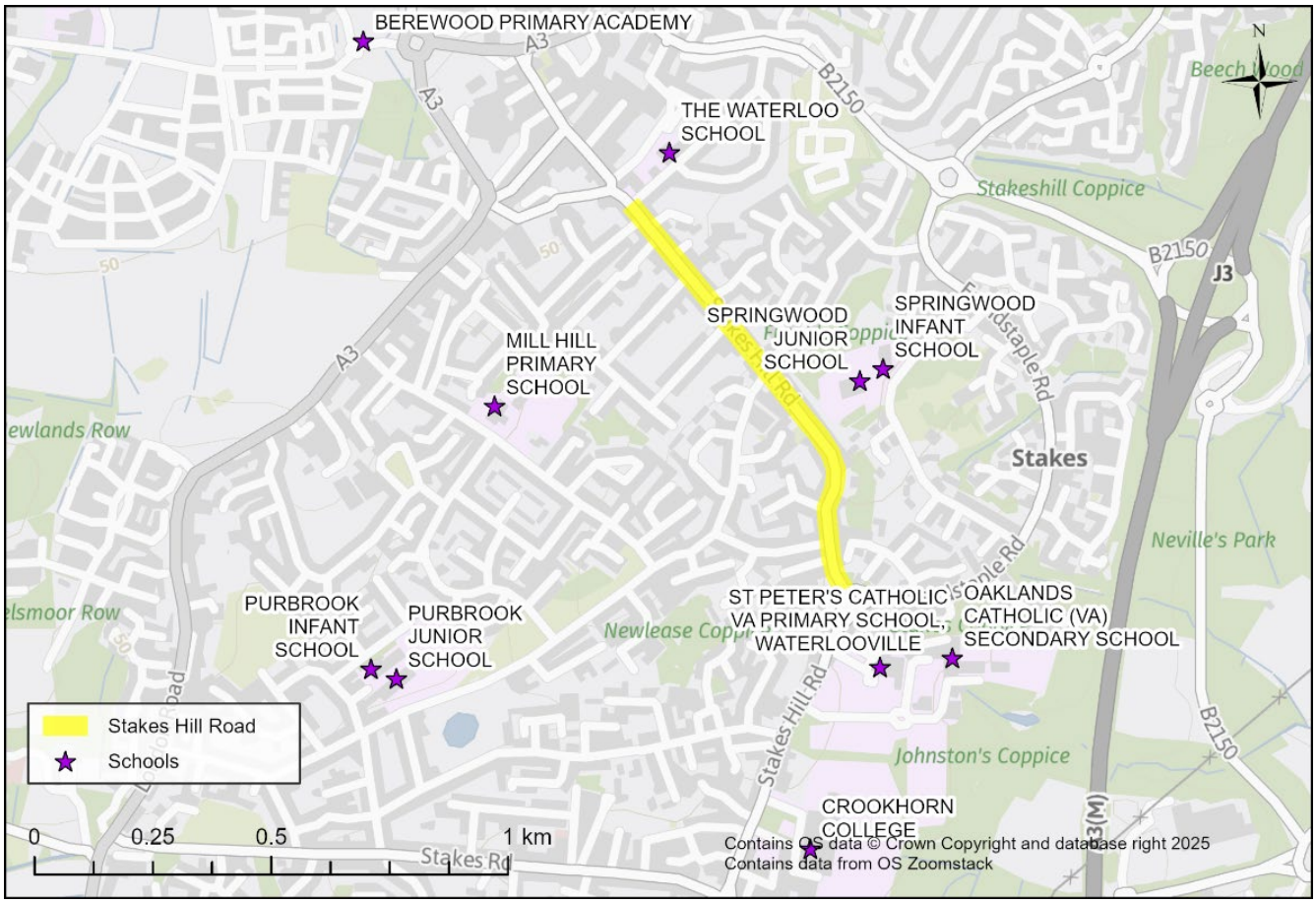


Figure 15 Schools close to Stakes Hill Road

Table 3 Key Trip attractors and generators close to Stakes Hill Road

Category	Location / Description	Trip Impact
Schools	6 schools (4 primary/infant, 2 secondary) distributed across the study area	Major daily trip generators during AM/PM peaks; high potential for active travel
Healthcare	Multiple GP surgeries and pharmacies clustered in Waterlooville town centre	Generates regular trips for medical appointments and prescriptions

Retail / Shopping	Supermarkets and local shops in town centre, where primary and secondary frontages are.	Attracts both local and passing trade, contributing to vehicular and pedestrian flows
Recreation and Sports	Parks and Play Areas: Distributed across the study area, Sports Facilities: Located near the northern end of the corridor	Likely generates short trips via walking or cycling/wheeling, and evening & weekend trips.
Housing Developments	Adopted Allocations Plan (2014) identifies housing allocations west of Stakes Hill Road, including regeneration areas and mixed-use sites	Developments will increase residential density and generate additional travel demand.
Employment	Concentration of local retail and service employment proximity to town centre and business areas	Local retail and service employment along A3; proximity to town centre and business areas

6. School Travel Summary

The study area surrounding Stakes Hill Road encompasses six schools: four primary/infant schools and two secondary schools. Collectively, these schools serve approximately 3,268 pupils, of which 984 (30%) attend primary or infant schools and 2,284 (70%) attend secondary schools.

The following summary is based on postcode-level pupil distribution data provided by Hampshire County Council (2023). Figure 16 maps this data, isochrones represent walking times from each school, and data points represent pupils' home postcode. This is grouped by colour, indicating mode of travel & clustered into groups depending on number of pupils:

Springwood Infant School (141 pupils) & Springwood Junior School (227 pupils)

- Most pupils reside to the southwest of the schools, with most living within a 10-minute walking distance. Despite this proximity, a notable proportion of pupils travel by car, indicating potential for modal shift through targeted interventions.

- Several pupil clusters are located west of Stakes Hill Road, requiring crossing Stakes Hill Road where no controlled facilities currently exist. This presents an opportunity to improve pedestrian safety and connectivity.

- A smaller number of pupils live beyond a 30-minute walking isochrone, where car travel is more reasonable. For these pupils, modal shift may be less feasible; however, safety improvements for existing active travel routes remain important.

Mill Hill Primary School (184 pupils)

- Most pupils live within a 10–15-minute walking distance, suggesting strong potential for active travel.

- Car travel is more prevalent among pupils residing east of Stakes Hill Road, highlighting the need for improved crossing facilities along the corridor and safer walking routes to encourage modal shift.

Crookhorn College (912 pupils)

- As a secondary school without a geographical catchment, pupil distribution is more dispersed compared to primary schools.

- Car use is relatively high, presenting opportunities to promote alternative modes such as cycling and wheeling, particularly for pupils living within a reasonable distance.

St Peter's Catholic Primary School (432 pupils) & Oaklands Catholic School and Sixth Form College (1,372 pupils)

- Both schools operate under faith-based admissions criteria, resulting in a wide geographical spread of pupils.

- Data indicates a comparatively higher proportion of pupils cycling or scooting to these schools. This trend reinforces the need to enhance cycling infrastructure and ensure safe, continuous routes for active travel.

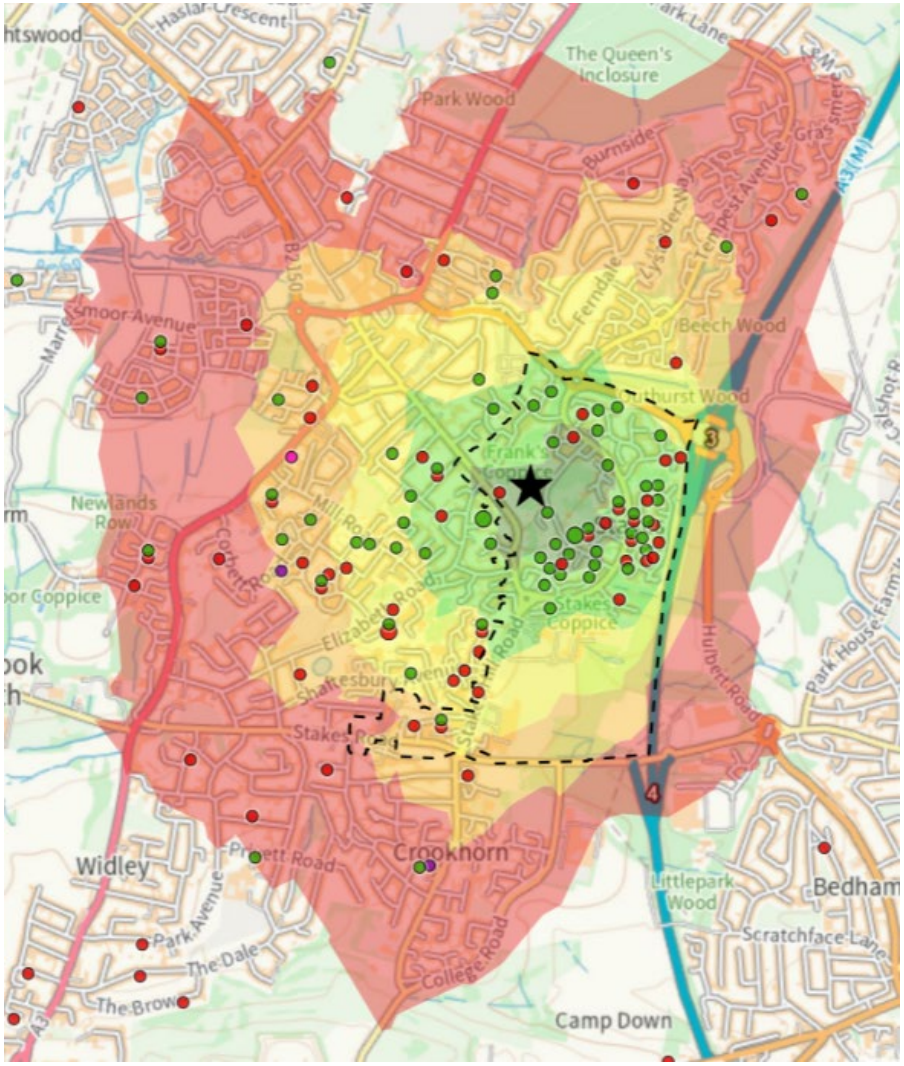
Key Observations

- Across all schools, a significant number of pupils live within walking distance yet travel by car, suggesting there is potential for targeted behaviour change initiatives.

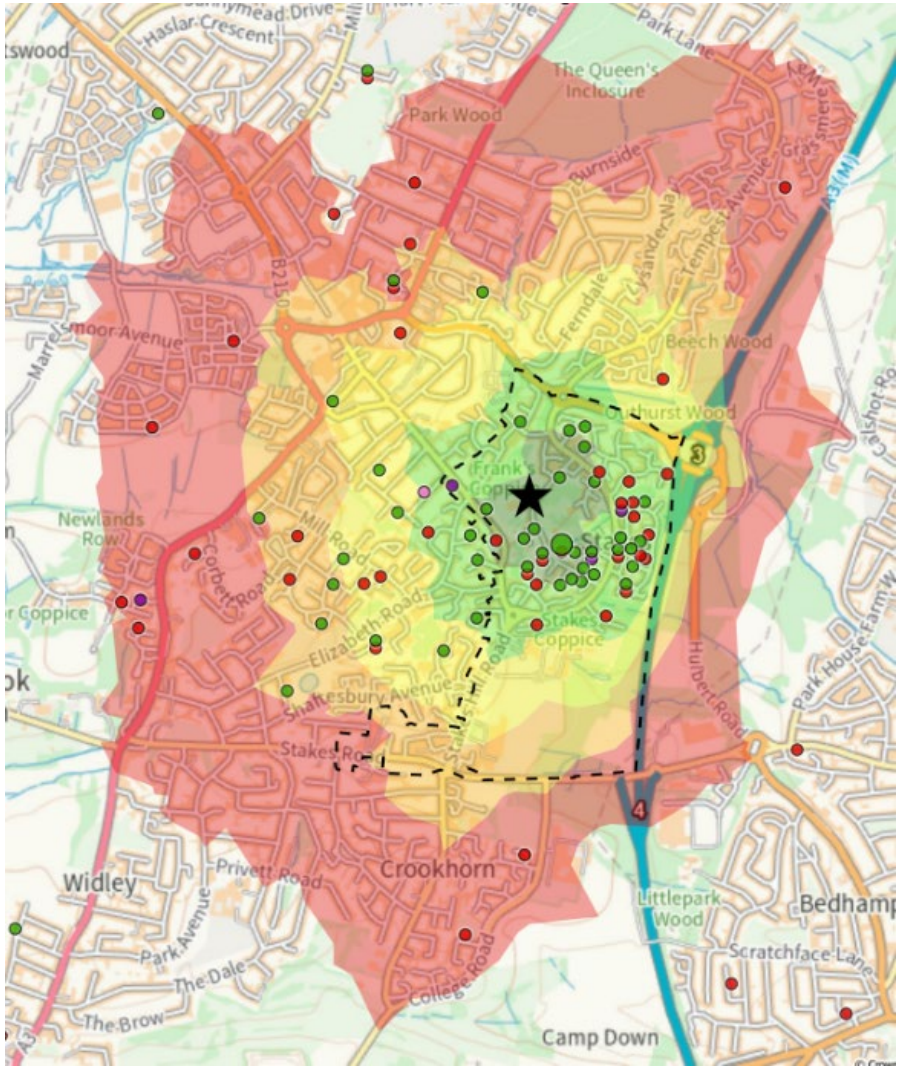
- The absence of a controlled crossing on Stakes Hill Road is likely a barrier to safe active travel, particularly for pupils either side of the corridor.

- There is significant existing cycling and wheeling activity, this highlights the importance and need to improve cycle safety and connectivity.

- Site visits, ATCs and stakeholder and community engagement revealed that school-related journeys cause a significant spike in motor vehicle traffic in the area, leading to increased conflict between motorists, pedestrians and cyclists. During these peak times, pavement parking also becomes more prevalent and conflict between motorists and local residents has been reported (Figure 17 & 18)



1. Springwood Junior School



2. Springwood Infant School

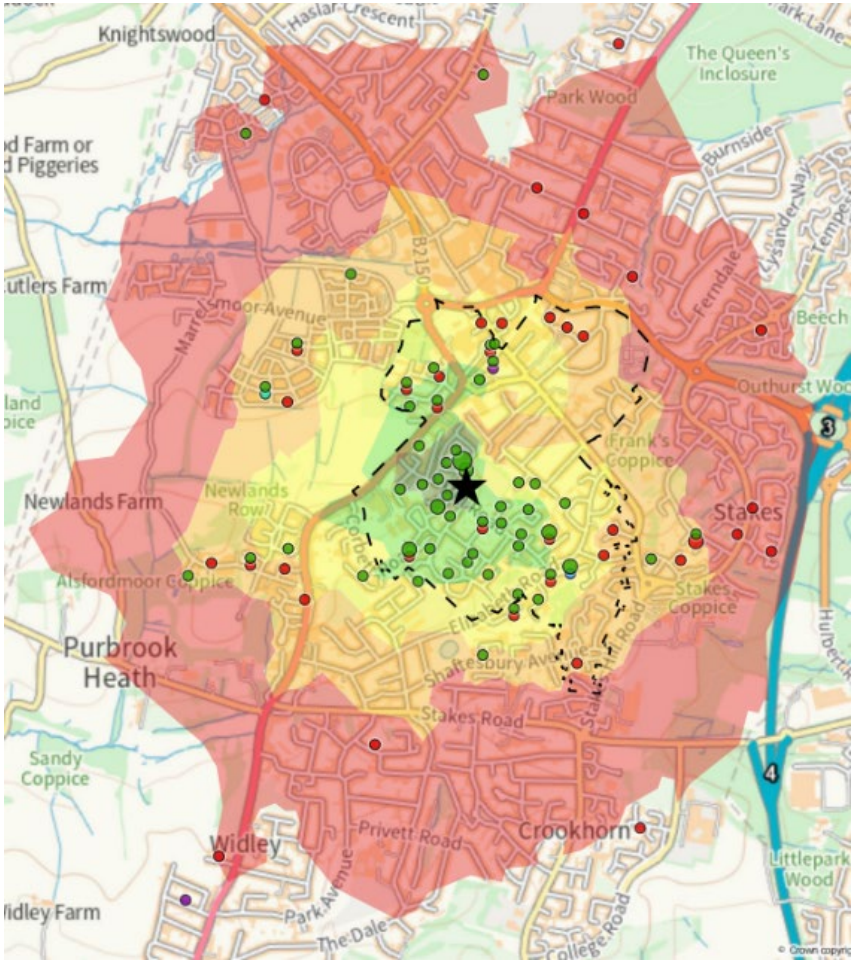
Catchment

Walking Isochrones -

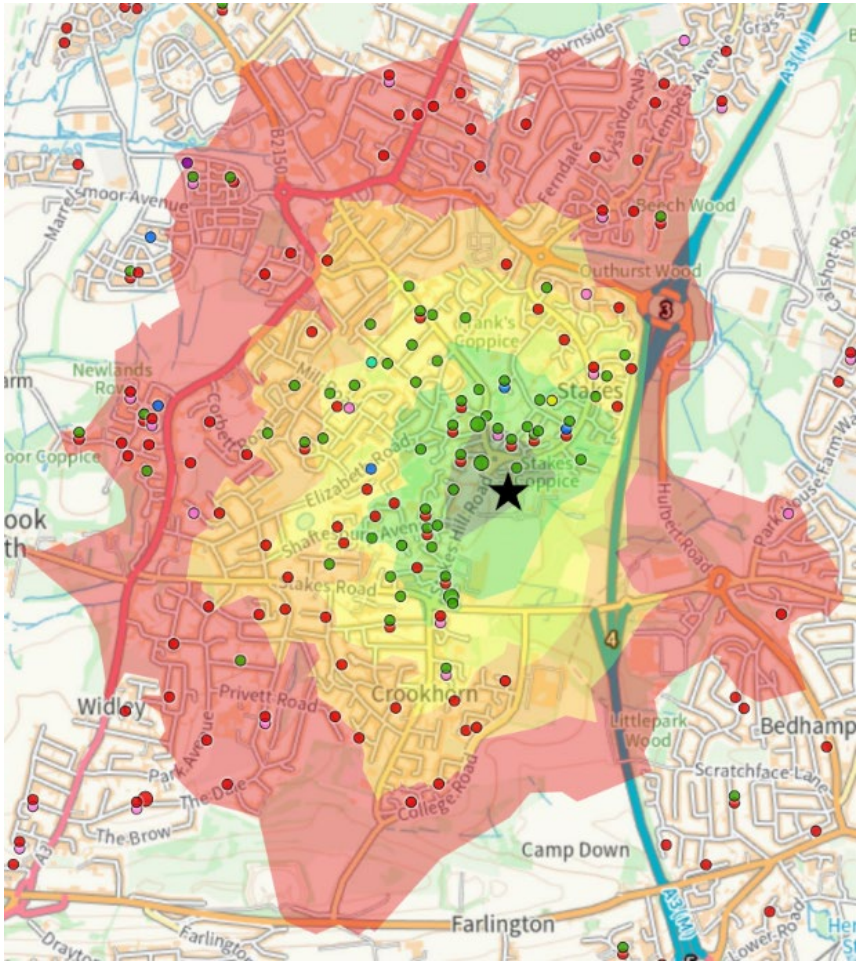
- 0-5 Minute Walk
- 5-10 Minute Walk
- 10-15 Minute Walk
- 15-20 Minute Walk
- 20-30 Minute Walk

Modes of Travel -

- Bus (1-3 Pupils)
- Car (1-3 Pupils)
- Car (4-6 Pupils)
- Cycling/Scooter (1-3 Pupils)
- Taxi (1-3 Pupils)
- Walking (1-3 Pupils)
- Walking (4-6 Pupils)
- Walking (7+ Pupils)



3. Mill Hill Primary



4. Crookhorn College

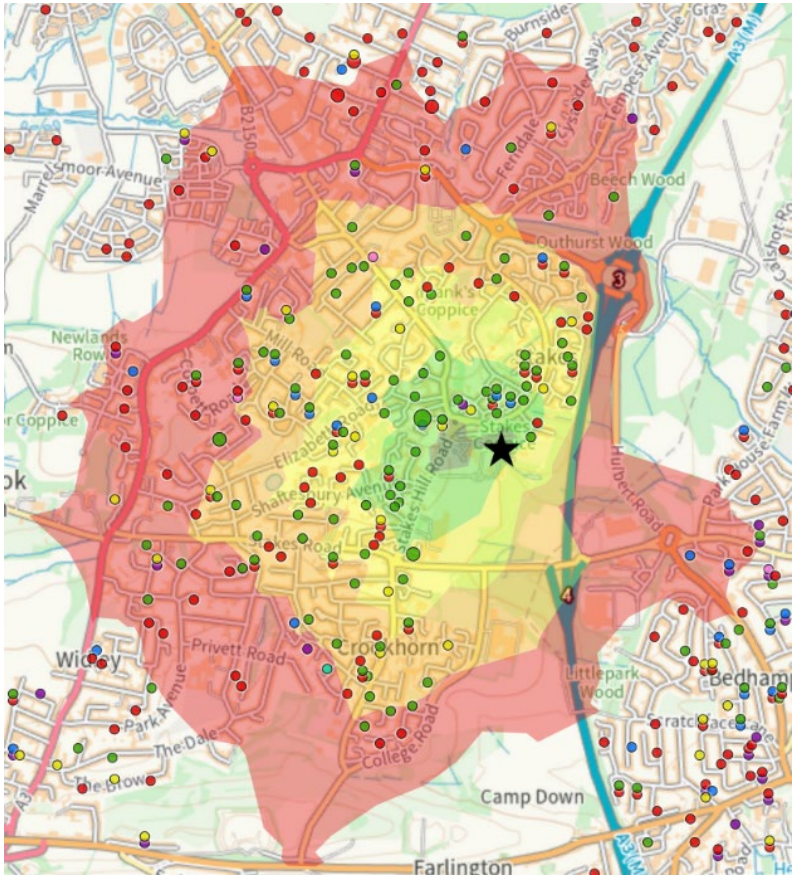
Catchment

Walking Isochrones -

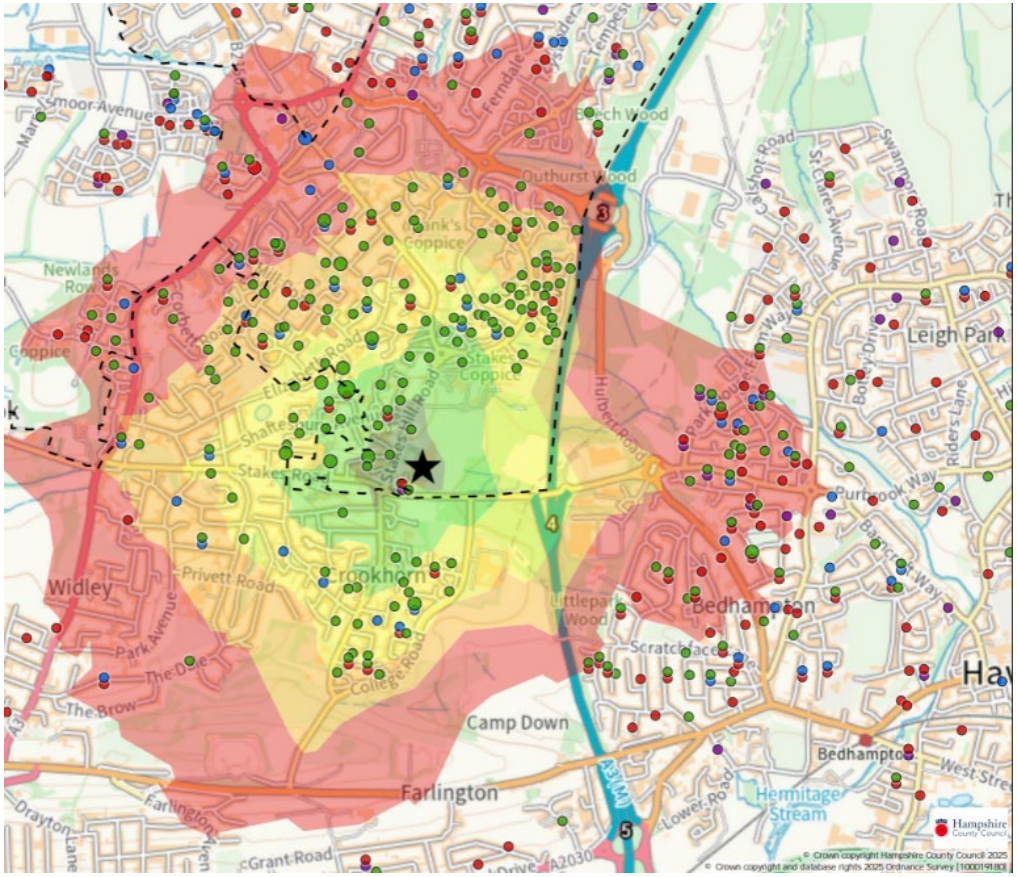
- 0-5 Minute Walk
- 5-10 Minute Walk
- 10-15 Minute Walk
- 15-20 Minute Walk
- 20-30 Minute Walk

Modes of Travel -

- Bus (1-3 Pupils)
- Car (1-3 Pupils)
- Car (4-6 Pupils)
- Cycling/Scooter (1-3 Pupils)
- Taxi (1-3 Pupils)
- Walking (1-3 Pupils)
- Walking (4-6 Pupils)
- Walking (7+ Pupils)



5. St Peters Catholic Primary



6. Oaklands Catholic

Figure 16.1 – 16.6 School Postcode Data & walking distance isochrones (Hamshire CC, 2023)

Figures 17 & 18 Illegal parking during school peak hours near Durham Gardens junction

7. Planned Highway Changes and other Local Projects

A range of aspirations for the surrounding area have been identified by Hampshire County Council, as shown in Figure 19. These proposals aim to enhance connectivity, safety, and the overall quality of the public realm. The key elements are outlined below:

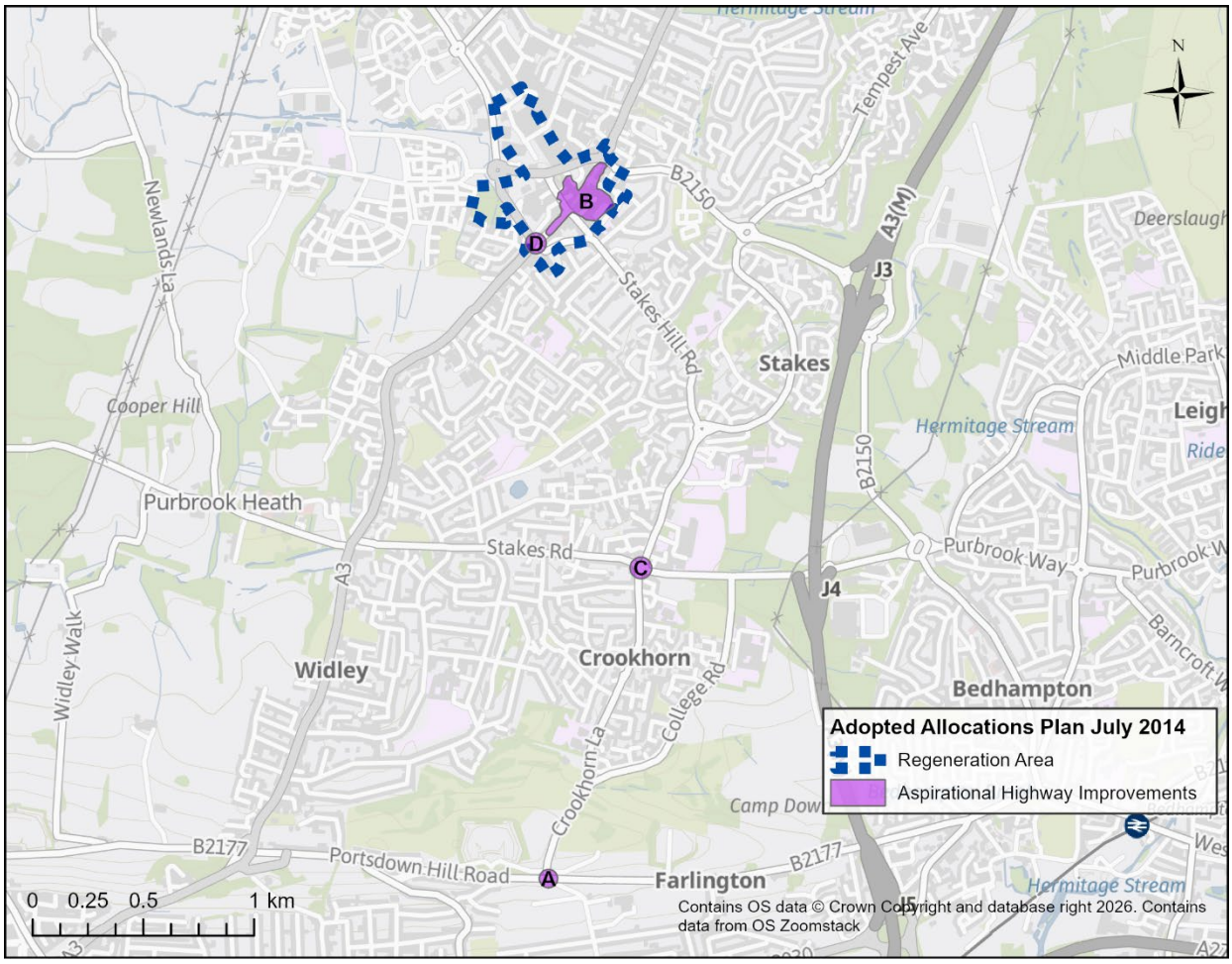


Figure 19 Planned highway changes near to Stakes Hill Road

A. Signalised Crossing at Crookhorn Lane / B2177 Junction

- Status: Not yet committed or funded.
- Purpose: To improve pedestrian safety and facilitate safer crossing movements at a key junction.

B. Waterlooville High Street Improvements

- Status: Not currently committed but forms part of the Waterlooville Masterplan.
- Funding: Havant Community Infrastructure Levy (CIL) funding has been allocated for a new play area and urban realm enhancements within the High Street precinct.
- Objective: To revitalise the High Street environment, supporting active travel and community use.

C. Roundabout Modifications on Stakes Hill Road (South of Study Area)

- **Status**: Details of the scheme are currently unclear; however, there is a planning commitment to improve the Crookhorn Lane / Stakes Hill Road/Stakes Road/Purbrook Way roundabout.
- **Scope**: Enhancements will prioritise bus priority measures, as well as improved pedestrian and cycle facilities.
- **Progress:** A preliminary design study is underway.
-

D. London Road / Rockville Drive / A3 Maurepas Way Roundabout Study

- **Status**: Ongoing study.
- **Objective**: To improve north–south pedestrian and cycle connectivity into Waterlooville town centre, supporting sustainable travel modes.

8. Existing Infrastructure

ATE Route Check

The Active Travel England (ATE) Route Check tool indicates that the current route on Stakes Hill Road scores poorly for pedestrian and cyclist safety and comfort. A critical issue was recorded for motor traffic speed in which traffic data shows the 85th percentile speed of more than 30mph where cyclists are unprotected. Cyclist comfort is also greatly reduced on this basis.

The current route scores most highly in terms of directness, consistent with the ATC findings that emphasise the route's role as a strategic connector to the town centre from the south. This informs recommendations that continuous active travel infrastructure should be provided along the extent of the corridor, in order to support the high levels of demand, and encourage more journeys by walking and cycling.

The full ATE route check can be found as an appendix to this report and the figure below highlights key features impacting the quality of existing provision along Stakes Hill Road.

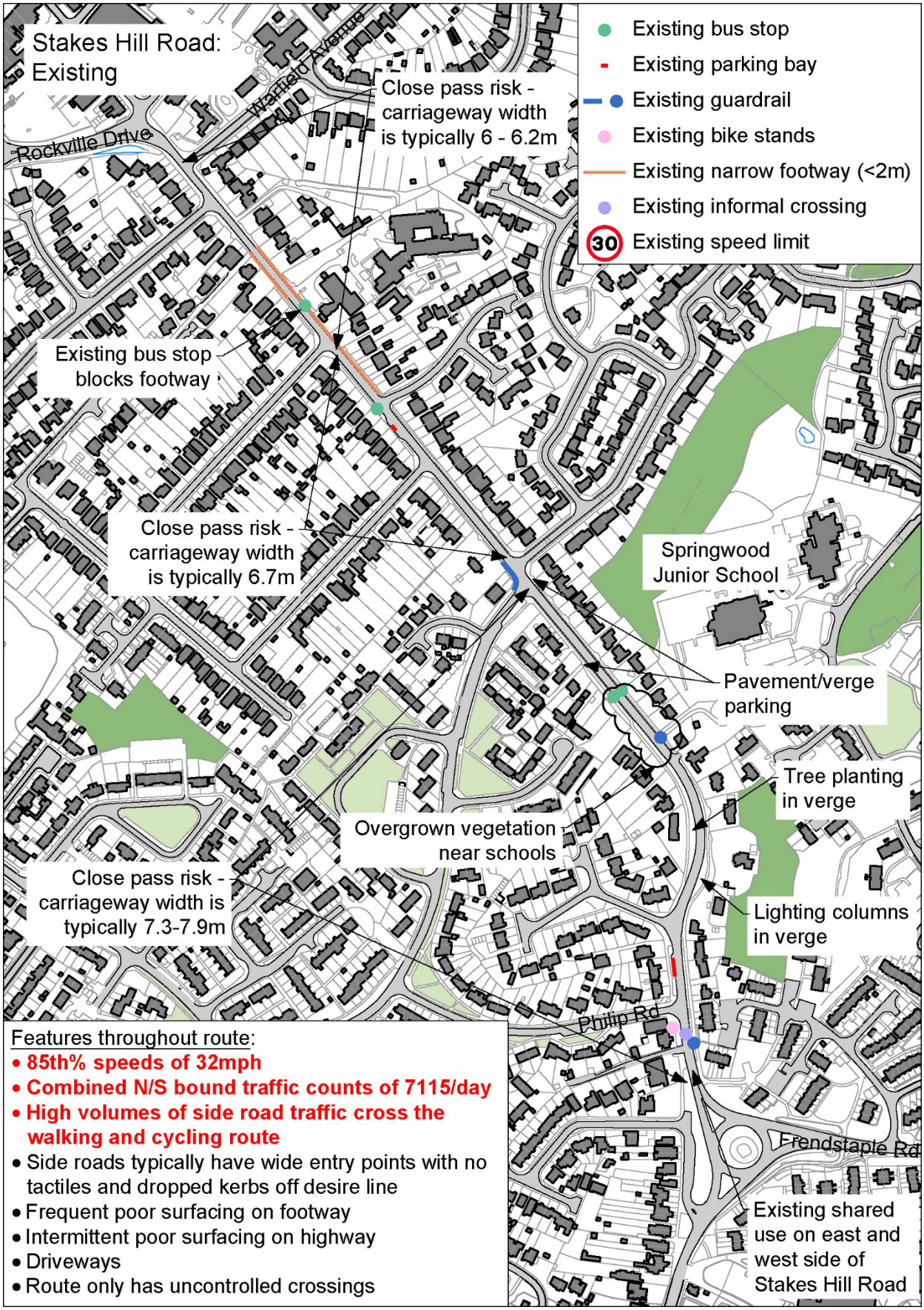


Figure 20 Map showing existing features along Stakes Hill Road

9. Engagement

Summary

This section draws together the community insights gathered through the Co-Discover events (held at Waterlooville Library & Learning Centre, St Peter's Catholic Primary School, and Springwood Community Centre) and the data from the online Community Mapping Tool (CMT). Together these activities formed the engagement programme for this stage, and were delivered by WWCT with collaboration and support from Hampshire County Council colleagues.

Engagement reach and methods:

- **Awareness & channels.** Stakeholder emails, a meeting with councillors, printed posters, distributed flyers, social media campaigns and a dedicated HCC project webpage promoted the work. The CMT ran between 19 March – early May 2025 and was re-opened 9 June – 20 July 2025 to extend reach following low in-person turnout linked to leaflet distribution issues.
- **In-person engagement.** Three drop-in sessions (2–3 April 2025) engaged residents, parents/carers, school staff and passers-by; facilitation tools included large-scale maps, dot voting and sticky-note prompts.
- **Digital engagement.** Approximately 120 submissions were received via the CMT, providing geo-located comments on barriers, issues and opportunities along the corridor and nearby streets.

Headline levels of support

Across channels there was clear support to improve provision and safety for people walking, wheeling and cycling along Stakes Hill Road, and the surrounding residential streets. In combined polling at events and online:

- ~93% agreed that Stakes Hill Road should be improved for the safety of people walking, wheeling and cycling;
- ~85% agreed that the surrounding streets also need improvement.

Summary of feedback

Engagement feedback was notably consistent across locations and formats, indicating a strong baseline of findings, with a broad cover of issues reported.

Crossings and children' s independence:

A lack of regular, well-located controlled crossings was the most cited barrier. Locations repeatedly mentioned include Rockville Drive, near Beechwood Avenue, the raised crossing by the Springwood Avenue link, Frendstaple Road roundabout, and outside Oaklands Catholic School (when the school crossing patrol is not present). Families reported running between traffic gaps at school peaks.

Driver behaviour and speeds:

Respondents described close passes, tailgating at 30mph, failure to yield at informal/raised crossings, and speeds >30mph, particularly around Elizabeth Road, Warfield Avenue and on long, straight sections. Night-time speeding and HGV movements were also raised.

School-related pressures & parking

Drop-off/pick-up windows generate acute congestion, footway parking (notably near St Peter's), U-turns at entrances, and conflicts with residents (e.g., Mole Hill, Lombardy Rise). Bus stop pinch-points reduce pedestrian space near Springwood Avenue.

High vehicle volumes and speeds

The speed and volume of motor vehicles (including HGV's) was repeatedly reported as a strong concern to people walking wheeling or cycling, and was cited as a key barrier to more people choosing to travel actively along the route.

Walking & wheeling conditions:

Narrow/uneven footways, excessive crossfall and encroaching vegetation were frequently reported (e.g., Hopfield Close, Broadland Avenue). People asked for more resting places and continuous/priority footways at side roads.

Cycling continuity & safety

People highlighted a patchwork of provision, missing links north of Philip Road, and hazardous junction negotiation (e.g., Warfield Avenue signals). Respondents asked for segregated space where feasible and clear, legible routes.

Wayfinding & wider environment

Requests included signage into Springwood Park and along local footpath links (e.g., Frendstaple Road, Lavender Road, Lantana Close). People also suggested micro-placemaking (pocket parks, seating, artwork) and highlighted existing community assets (e.g., the local Men's Shed street-library) that make the corridor feel cared for.

What would encourage change

When asked what would encourage more walking, wheeling and cycling, there was strong support for:

Reducing vehicle speeds; more frequent crossings; improved footways, and more places to stop and rest;

There was less support for broad traffic volume reduction in isolation.

Implications for design

Crossing provision should be increased and improved, and better aligned to desire lines for schools, bus stops and park/open space links.

Speed management is required corridor-wide; localised geometry changes and other calming measures should be explored.

School-gate management & footway protection (no footway parking, formalised bays, side-road treatments) will be critical for improving safety at peak times.

Continuous, coherent cycle provision is needed, and should avoid creating frequent transitions between shared footway and mixed-carriageway cycling.

Public realm measures, including resting places, shade/greening, and wayfinding, were suggested to improve comfort and inclusivity of the route, to better facilitate everyday trips in an inclusive way.

10. Stakeholder engagement

In May 2025, a meeting was held with the Walk Wheel Cycle Trust project team, Hampshire County Council, and several local councillors from the Stakes, Waterloo, Havant and Hayling wards, to discuss challenges and opportunities along the corridor. The conversation focused on traffic congestion, school travel behaviour, public transport and ways to encourage active travel.

Key Issues Identified

School-Related Traffic

- Drop-off and pick-up times create significant traffic spikes, with staggered finishing times at different schools extending congestion periods.
- Aggressive driving, pavement parking, and gridlock at roundabouts were noted, with increased conflict between road users reported by residents.

Barriers to Active Travel

- Some existing footpaths are poorly maintained and prone to waterlogging, discouraging pupils from walking to school.
- Some cycle routes are signed in the local area, but perceived as unsafe or low quality, reducing uptake.
- A cultural shift toward car-based travel has taken place in recent years, with more short journeys (1–2 miles) now made by car.

Public Transport

- Bus services, such as Route 7 along Stakes Hill Road, are generally reliable but still experience delays from vehicle congestion.

- Future improvements could include measures to prioritise buses.

Opportunities Highlighted

- Upgrading walking and cycling infrastructure would support safer school travel by reducing car dependency and volume of cars on the road at peak times.
- Exploring behaviour change initiatives and engaging with school travel plan coordinators, including consideration of school bus schemes, could help planners to understand why so many short school journeys are made by car.
- A number of opportunities are available to incorporate placemaking into the route, such as seating, pocket parks and artwork, which would enhance the local environment.

A full report detailing public and stakeholder engagement activities and findings can be found in appendix 1 "Engagement Summary Note" 15577-NCN-RE-02.

11. Design Approach

Key Design Guidance

The key sources of design guidance used in this study are:

- Local Transport Note (LTN) 1/20 – cycle infrastructure design
- Active Travel England Route Check User manual
- Inclusive Mobility
- Manual for Streets
- Healthy Streets

As highlighted earlier in this report, when the existing provision is assessed against the Active Travel England (ATE) Route Check User Manual, several 'Critical Issues' are highlighted. A Critical Issue within the tool is defined as a street layout or condition associated with an increased risk of collision for pedestrians and cyclists that is likely to act as a significant barrier to Active Travel.

Design Objectives:

The overarching design objectives are to identify a range of interventions that will resolve the issues identified and create a safe and accessible section of the network for users who walk, cycle or wheel.

- Walking/wheeling and cycling provision should be improved to resolve the critical active travel issues identified in the ATE route check and give a level of cycle provision that would achieve 'green' (provision suitable for most people) in accordance with LTN 1/20 Figure 4.1,
- Walking/wheeling and cycling provision should be improved to address issues of accessibility, comfort and safety along the whole length of the route including at side roads.

Figure 4.1: Appropriate protection from motor traffic on highways

Figure 21 Figure 4.1 from LTN1/20

Design Approaches

The following design approaches have been adopted to meet the design objectives listed above.

- Explore options for cycling facilities that are separate from the highway, improve the quality of footways and incorporate suitable crossings including at side roads.
- Where there is insufficient space for separate facilities, reduce traffic speeds and volumes to facilitate safe mixed traffic cycling
- Avoid causing excessive delays to other modes of transport, particularly buses that use the corridor
- Avoid significant impacts on the surrounding network or re-routing motor traffic onto unsuitable streets.

- Design a solution that maximises deliverability whilst minimising cost/carbon and environmental impact where possible.

A number of design options have been identified and are these are evaluated in the following sections.

Option 1 – Bus Gate with mixed traffic provision – whole route

Figure 22 Stakes Hill Option 1 – Bus Gate with mixed traffic provision along whole route

The Stakes Hill route is currently not suitable for mixed traffic cycling due to high daily traffic volumes averaging 3,278 vehicles per day northbound and 3,837 southbound, with heavy vehicles comprising 3.28% and 3.05% respectively. 85th percentile speeds are approximately 32mph.

This represents a Critical Fail within the ATE Route check. LTN1/20 states in Chapter 7 that 'Most people, especially with younger children, will not feel comfortable on carriageways with more than 2,500 vehicles per day and speeds of more than 20mph'.

The issue of speed and traffic volumes also impacts people walking and wheeling, as they use the adjacent footways and navigate the existing poor provision at crossing points.

A review of the network has identified that a bus gate in the vicinity of South Africa Lodge would significantly reduce traffic volumes. The exact location of a bus gate should be considered in any future design stage and with input from the community, Local Highways Authority and bus providers.

It is possible that a bus gate located here may displace traffic onto Hurstville Drive and a modal filter should also be considered at this location.

Considering the broader network around Stakes Hill, there are strong boundary roads to the north (Hulbert Road and Frenstaple Road) but none to the south of Stakes Hill Road. Introducing additional filters to avoid displacement onto roads to the south would create a very large cell, which is not considered desirable or feasible. Therefore a risk remains that some motor traffic from Stakes Hill Road would divert onto roads to the south for which additional through motor traffic is not desirable.

Initial indications are that Frenstaple Road would be the preferred option for most motor traffic journeys. However, it is likely that for some other destinations, some motor traffic would divert to Mill Road / Elizabeth Road. This could be partly but not fully mitigated by improvements to that corridor (e.g. improved crossings on Mill Road).

Network changes recommended as part of this option would be adopted alongside a proposed speed limit reduction to 20mph as well as traffic calming measures such as visual narrowing of the highway and possibly speed humps and raised tables.

The existing lane width is within the critical range (3.2m to 3.9m) for close passing. A median strip such as the one highlighted in the image below

would mitigate this risk by visually narrowing the carriageway to discourage close passing, as well as buffer strips adjacent to the existing parking bays. These measures could also be reinforced by incorporating build outs at some locations including at the bus stop locations, where the footway is significantly impeded by the existing bus shelter.

Figure 23 Example of a central median strip

The available traffic survey data indicates that over 5,000 vehicles per day are using this section of Stakes Hill Road and the proposed bus gate and modal filter may not reduce traffic volumes to acceptable levels to the south of Philip Road. It is therefore recommended that the route transitions onto a shared use path to the north of Philip Road, with a parallel zebra crossing over Philip Road and connecting into the existing shared use path at the roundabout.

Improvements to the footway will also be required along this section to address safety and accessibility issues:

- Resurfacing of poor quality sections and to address excessive crossfall and surface water pooling
- Continuous crossings where possible at side roads
- Tactiles and dropped kerbs on the desire line at side roads and at uncontrolled crossing points
- Tightened geometry at side roads to reduce vehicle speeds
- Remove guard rails (and address any resulting risk by exploring geometrical changes or incorporating buildouts where necessary).
- Cut back vegetation where it encroaches onto the path and raise canopy height where lighting and/or visibility is impacted.
- Additional uncontrolled crossing locations at frequent intervals.

Additional design interventions to explore in future design stages:

- Address problematic driveway entrances where possible
- Provide formalised on street parking locations and prohibit or prevent parking on the footway, potentially with the use of physical features.
- Widen the existing section of shared use path at the south end of Stakes Hill Road
- Evaluate broader network impacts due to traffic displacement

Option 2 – Bus Gate with mixed traffic cycling and cycle track combination

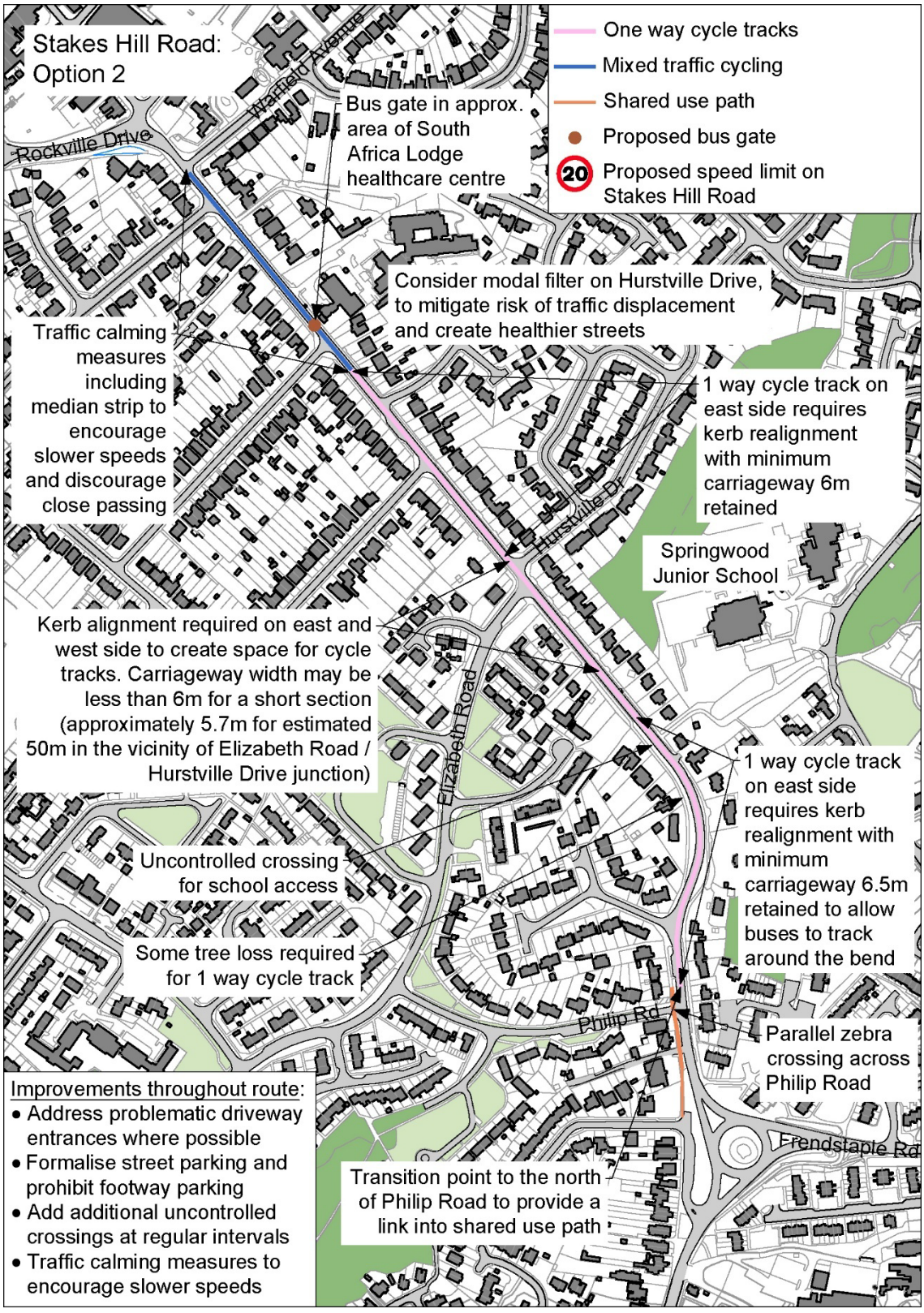


Figure 24 Stakes Hill Option 2 – Bus Gate with mixed traffic cycling and cycle track combination

This option explores the potential to introduce a bus gate to allow mixed traffic cycling along 250m length at the north end of Stakes Hill where there is insufficient width for a separate facility. To the south of this mixed section the design option incorporates a minimum 1.5m wide 1 way cycle track on either side of the carriageway

As with Option 1, it may be necessary to apply a filter on Hurstville Drive, to mitigate the risk of traffic displacement and the broader network impacts outlined in Option 1 also apply

Figure 24 above illustrates Option 2 and indicates the extent of Stakes Hill Road which has available width for a minimum 1.5m wide 1 way cycle track on either side of the carriageway.

Figure 24 highlights sections of the route where kerb realignment will be required to facilitate the one way cycle track as well as tree loss in some places. Even with some kerb realignment there may be places where there is limited space for a buffer between the cycle track and carriageway.

The section either side of Elizabeth Drive (approximately 80m long) may require kerb realignment on both sides of the carriageway to facilitate the cycle tracks and approximately 50m of this section may require carriageway width to be reduced to 5.7m.

Further measurements and design development will be required to ensure that the facility can be incorporated along side the existing bus stop locations.

The 1 way cycling facility transitions into a shared use path to the north of Philip Road, with a parallel zebra crossing over Philip Road.

The design option includes speed limit reduction to 20mph but this reduction is less critical for this design option. Given that there is limited space for a buffer between the cycling facility and the carriageway, it may be necessary to introduce some of the measures described in Option 1 to encourage slower motor vehicle speeds.

The introduction of the separated cycling facility will also require consideration of the following interventions:

- Resurfacing of poor quality footway sections and to address excessive crossfall and surface water
- Priority crossings where possible at side roads

- Tactiles and dropped kerbs on the desire line at side roads and uncontrolled crossings
- Tightened geometry at side roads to reduce vehicle speeds
- Remove guard rails (and address any resulting risk by exploring geometrical changes or incorporating buildouts where necessary).
- Additional uncontrolled crossing locations at frequent intervals
- Cut back vegetation where it encroaches onto the path and raise canopy height where lighting and visibility may be impacted.

Additional design interventions to explore in future design stages:

- Address problematic driveway entrances where possible
- Provide formalised on street parking locations and prohibit or prevent parking on the footway, potentially with the use of physical features.
- Widen the existing section of shared use path at the south end of Stakes Hill Road
- Evaluate broader network impacts due to traffic displacement

Option 3 – Protected Space for Cycling– whole route

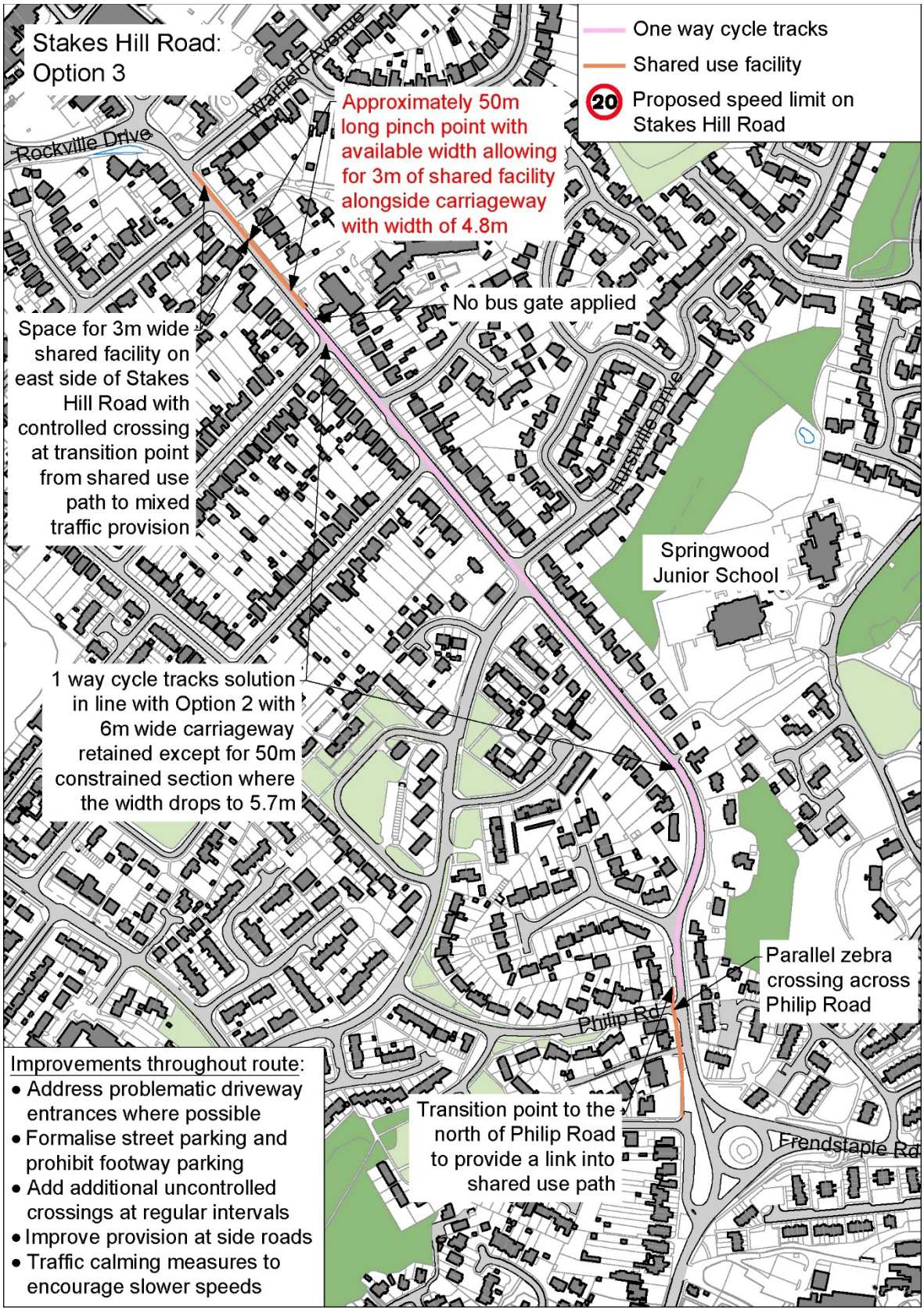


Figure 25 Stakes Hill Option 3 Separate cycle space along whole route

Option 3 explores the potential for a separate cycle space along the majority of the western side of the route and a 200m section of shared use path at the northern end of the route where the highway corridor is highly constrained.

Measurements taken on site indicate that this would result in a 50m stretch of 3m wide shared path alongside a carriageway width of 4.8m, which is below the minimum acceptable width indicated by Hampshire County Council guidance for this bus route.

As with Option 2, the section either side of Elizabeth Drive (approximately 80m long) may require kerb realignment on both sides of the carriageway to facilitate the cycle tracks and approximately 50m of this section may require carriageway width to be reduced to 5.7m.

Although a car could pass a bus along this stretch (MfS Figure 7.1), two buses would not be able to pass each other. Whilst this is not desirable, the section is relatively short and a site assessment indicates there is adequate visibility ahead to see whether there is already a bus in the narrow section. Local buses run every 15m so the requirement to pause and wait for another bus to leave the narrow section is likely to be infrequent. Imposing a width restriction on other wide vehicles along the route would reduce the number of larger vehicles on the route and would minimise the frequency of large vehicles needing wait to access the narrow section.

Beyond the shared use section, the route would transition into 1 way cycle tracks on either side of the road, in line with Option 2 described above.

Option 4 – Alternative NCN alignment

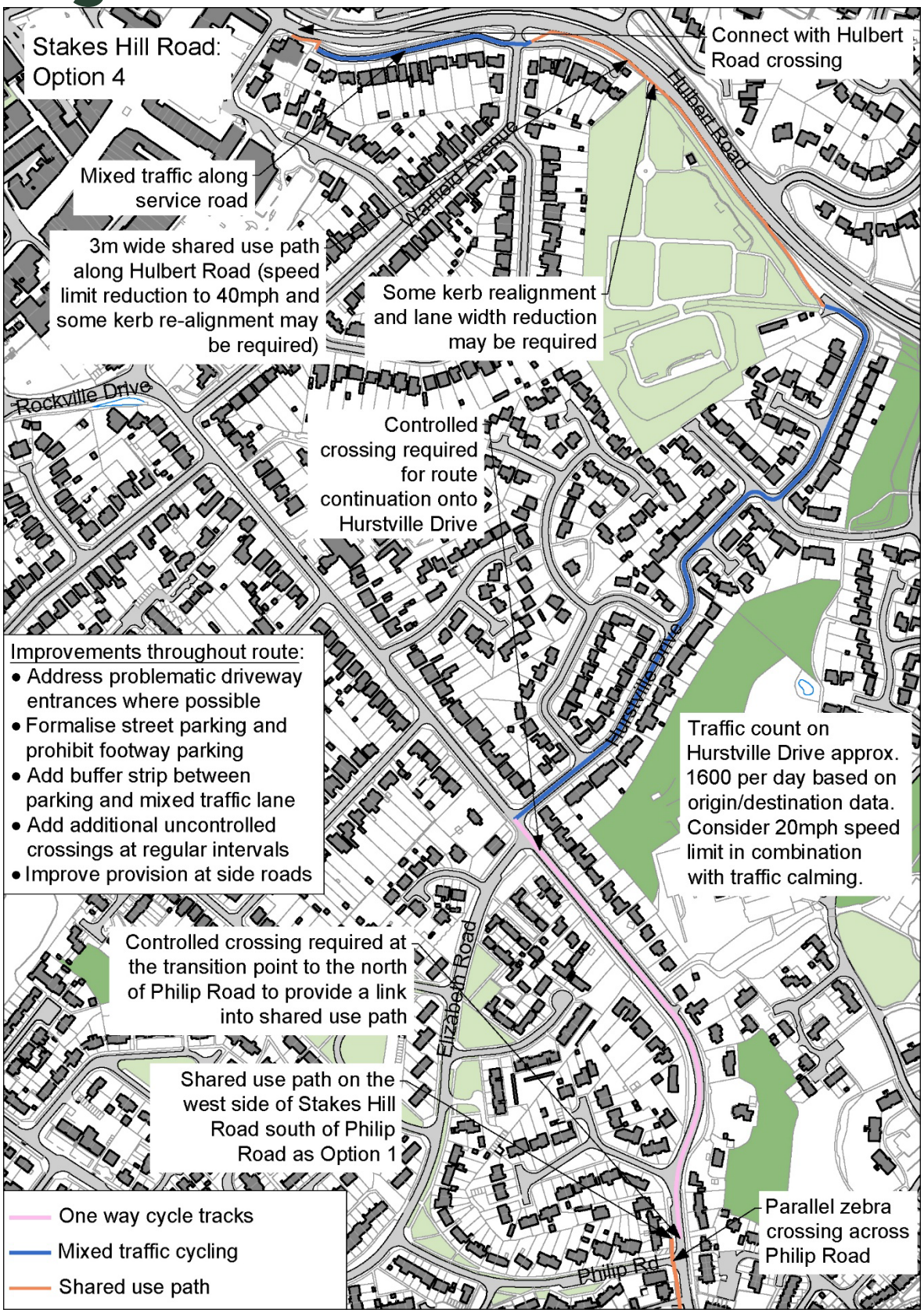


Figure 26 Option 4 – alternative NCN alignment

Option 4 considers a realignment of the NCN along Hurstville Drive and B2150 Hulbert Road (dual carriageway) to the north.

Though the route is much less direct for the NCN and does not connect people directly to the high street it has the advantage that with one way cycle tracks on the southern section of Stakes Hill and diversion of the route onto Hurstville Drive, there is no critical requirement to reduce traffic volumes. The route would still benefit from measures to encourage slower speeds.

Origin/Destination data and a historic traffic count from 2022 indicate that traffic volumes along Hurstville Drive are low enough for mixed traffic cycling. The route is relatively windy and narrow with reduced visibility in places, and available data from 2022 indicates existing 85th%ile speeds of around 25mph in the measured location. if this option is developed further, it is recommended that a speed limit reduction to 20mph is adopted alongside consideration of further traffic calming measures.

Though the site walkover did not extend along Hurstville Drive, measurements from satellite imagery indicate that the lane widths along Hurstville Drive are not within the critical range of 3.2m and 3.9m and does not appear to present a concern with regards close passing.

From Hurstville Drive, a link with Hulbert Road (Dual Carriageway) would be created in the south west corner of the cemetery, and the route would continue along a shared use path besides Hulbert Road.

Again based on measurements from satellite imagery and OS base mapping, it appears that there is space for a 3m wide shared facility and 0.5m wide buffer in places, but there would be a requirement to realign the kerbs to gain up to 1m from the carriageway by re-aligning kerbs and reducing lane widths. In general this would provide sufficient width but there may be short sections where an additional width (less than 0.5m) may need to be gained from the tree line.

Based on a buffer width of 0.5m and in accordance with table 6-1 from LTN1/20, there would be a requirement to reduce speeds on the dual carriageway to 40mph.

At the northern end of Hulbert Road, the shared use path would connect with mixed traffic provision along the service road and beyond here into the

existing crossing point on Hulbert Road, where this connects with the existing NCN. For the service road sections, footway provision would be improved for people walking and wheeling where required.

Design Options Assessment

The following table provides a Red Amber Green (RAG) subjective evaluation of both the existing alignment and each of the four design options across 15 criteria considered applicable to the design and delivery of improvements to this section of the NCN. The first 5 indicators are based on the design principles as described within LTN1/20.

Criteria	Existing - mixed traffic provision along Stakes Hill Road	Option 1- Bus gate with mixed traffic provision along whole route	Option 2 - Bus Gate / mixed traffic on north section cycle tracks south	Option 3 - Protected space for cycling, whole route	Option 4 - alternative alignment along Hurstville Drive and Hulbert Road
Safety	High vehicle speeds and volumes, critical carriageway width	Reduced traffic speeds and volumes, median strip to mitigate carriageway width	Reduced traffic speeds and volumes, median strip to mitigate carriageway width and cycle tracks where traffic volumes increase	Protected space for cycling	Separate facility and/or reduced traffic speeds and volumes
Comfort	Poor surfaces, sections constrained by guard rails	Assume resolved as part of design/construction	Assume resolved as part of design/ construction	Assume resolved as part of design/ construction	Section of route is alongside dual carriageway but with adequate buffer

Directness	Offers a direct connection into traffic free NCN	Offers a direct connection into traffic free NCN	Offers a direct connection into traffic free NCN	Offers a direct connection into traffic free NCN	Route is less direct than Stakes Hill Road and with a deviation factor of >1.4
Attractiveness	Limited features targeted at walking/cycling/place enhancement	Mixed traffic cycling affords more space to make public realm improvements within the footway/verge improvements	Mixed traffic cycling affords more space to make public realm improvements within the footway/verge improvements	Limited space to incorporate place improvements , and section of shared use	Section of route is alongside dual carriageway – noise and shared use
Cohesion	Walking interrupted by multiple side roads	Separate footway improvements would be required to improve accessibility	Continuous crossings at side roads	Continuous crossings at side roads	Route deviates away from high street destination
Accessibility	Limited or no tactile paving at side roads and uncontrolled crossings variable footway widths	Footway improvements required to improve accessibility.	Footway improvements required to improve accessibility.	Short section of shared facility,	Shared facility alongside Hubert Road. Separate footway improvements would be required to improve accessibility.
Personal Security	Good passive surveillance, some sections constrained by guard rails	Good passive surveillance, guard rails to be removed	Good passive surveillance guard rails to be removed	Good passive surveillance guard rails to be removed	Reduced surveillance along the dual carriageway

Environment and Character	High movement function, low place function	Significantly improved by reduced traffic volumes and speed	Significantly improved by reduced traffic volumes and speed	Shared path in constrained space -fulfils movement function only	Alongside dual carriageway
Bus Priority	Bus route without priority	Bus priority provided, but speed limit reduced	Route is narrow in places	Route is narrow in places	No change to bus priority
Motor vehicle Network Impact	N/A	Existing through traffic would need to use an alternative route such as Frenstaple Road	Existing through traffic would need to use an alternative route such as Frenstaple Road	Minimal impact	Reduced speed limits only
Cost/Carbon	N/A	Limited geometry changes result in lowest cost/carbon impact.	Geometry changes result in cost/carbon impact	Significant geometry changes result in cost/carbon impact	Geometry changes result in cost/carbon impact
Environment/ Ecology	N/A	Limited/no impact on environment /ecology	Possible Loss of trees on southern section	Possible Loss of trees on Stakes Hill	Possible Loss of trees on southern section of Stakes Hill and adjacent to dual carriageway
Deliverability	N/A	Limited geometry changes, Network changes may not be accepted	Geometry changes, Network changes may not be accepted and	Geometry changes and sections where space is constrained	Limited geometry changes, and speed limit change on Hubert Road

			facilitate only a small stretch of mixed use		may not be accepted.
Works Duration and Traffic Management	N/A	Limited geometry changes	Geometry changes	Geometry changes	Geometry changes required on Hubert Road
NCN exceptions/ ATE Critical fails	Multiple	No exceptions or critical fails identified	No exceptions or critical fails identified but section of carriageway provided below widths in HCC guidance for a bus route	No exceptions or fails identified, but section of carriageway provided below widths in HCC guidance for a bus route. Short section of shared use path in an urban area conflicts with best practice.	No exceptions or critical fails identified

Whilst Options 1 and 2 represent high quality provision for relatively low cost, and with low carbon impact, feedback from stakeholder engagement indicates that bus-gates and traffic filtering are unlikely to be accepted for Stakes Hill Road due to the impact on people driving.

For this reason, the RAG assessment indicates that Option 3 - designing for a protected cycling space alongside footway improvements - represents the most favourable option across a broad range of criteria, and avoids the requirement for a bus gate which may impact deliverability.

The RAG assessment does highlight the potential carriageway narrowing for Option 3 (below 6m) as a 'red' because of the impact on the bus route,

however as discussed previously in the report, it is only short (less than 50m) sections which are impacted and there is adequate visibility, such that in the rare/occasional event that buses approach the section at the same time it is possible to resolve this by giving way.

The RAG table also highlights that carbon and cost impacts may be high for Option 3, due to the more significant amounts of kerb realignment required. On the other hand these geometrical changes may also present an opportunity to incorporate planting, SuDS and wider improvements.

Option 4 represents the least desirable way forward due to lack of directness and would significantly reduce the effectiveness of the route in it's role as a strategic connector to the town centre from the south.

Place recommendations

These recommendations complement corridor safety and movement measures with small-scale, high-impact public-realm improvements that respond to the results of the community engagement, and to current regeneration activity in Waterlooville. They are framed to be deliverable in phases, with early wins that build local momentum.

Principles

Support independent school-age mobility. Create safe, child-friendly routes and crossing facilities (including waiting spaces) on desire lines, where families and children are crossing; add rest points at regular intervals (to add formal provision to the existing low walls currently used as informal seating), and provide clear wayfinding to school gates, key destinations and parks.

Make walking/wheeling obvious and welcoming. Use continuous footways, tactile paving, decluttered corners and better lighting to improve the on-street experience for everyone.

Celebrate local identity. Tie in with Waterlooville Town Centre Masterplan ambitions (colour, street art (Figure 27), greener streets, activation of the High Street) so the corridor feels connected to the town's renewal.

Deliver early wins alongside strategic change. Align with Havant CIL-funded neighbourhood improvements and current play area /park upgrades to show visible benefits early.

Figure 27 Street art at Rockville Drive junction

Focus areas:

The following locations represent the strongest opportunities to combine safety improvements with meaningful placemaking benefits along the route.

Schools clusters: (St Peter's / Springwood / Oaklands). Create child-friendly, active school streets through consistent crossing provision, continuous footways (e.g. across Durham Gardens), widened footways, seating and gateway features, and "seating perches", planting, shade and shelter to reduce footway spillover at peak times.

Art and play: tie in with Town Centre Masterplan, align colour, public-art and public realm projects to continue character and identity of the town along the route. Combine formal and informal play features, eg play on the way (e.g., balance beams, stepping logs, trail markers, playful ground graphics) whilst facilitating community-led initiatives. Ensure interventions are coordinated with wayfinding, and do not introduce visual clutter in already constrained footway areas.

Wayfinding: Improve wayfinding and visibility of crossings to residential cut-throughs, use art, low-level lighting, floor decals and other signage to improve safety and aid legibility. Ensure wayfinding supports LCWIP corridors and NCN wayfinding.

Improve 'gateway' to the town on Rockville Drive/Warfield Ave: Improving identity, aiding legibility and increasing comfort. Provide high-

quality crossing at Rockville Drive, located near bus stops and desire lines into the town centre, improve attractiveness though planting and trees, installation of banner poles that mirror the Masterplan's "bringing colour to Waterlooville" initiative. Add coordinated wayfinding to central amenities and the High Street regeneration area (Wellington Way), aligning messages and visual language with the town-centre.

Springwood Park & community assets – green links and play: Reinforce the park link by resurfacing faded shared-path markings, adding entry markers ("Springwood Park route to schools") and directional signing from Stakes Hill Road/Springwood Avenue.

Coordinate with Springwood Play Area and community centre upgrades, to ensure accessible approaches (smoother surfaces, cambers corrected) and passive-surveillance through seating near entrances. Explore a community micro-grant scheme/CIL to nurture small, loved features (e.g., the Men's Shed street-library model (Figure 28)) that improve pride and care along the route.

Elizabeth Rd/Philip Road pocket park: Create a pocket park on under-used greenspace, combining seating, low planting, and a community notice board. Use this as a safe waiting space adjacent to an upgraded crossing sequence (e.g., parallel zebra crossing over Philip Road plus a single-stage crossing over Stakes Hill Road if warranted by flows). Consider entrance build-outs and continuous footways at Elizabeth Road and Gloucester Road, to improve sightlines and reduce turning speeds, responding to collision/visibility concerns.

Public realm 'palette'

To accompany junction/crossing upgrades that align with Healthy Streets and other design guidance apply a consistent set of low-cost, repeatable elements:

- **Rest points every 50-150m**: using a mix of seating types (with and without arm-rests/back-rests) at accessible heights, with space for wheelchairs, buggies and mobility scooters to sit alongside. Locate away from the narrowest sections. Individual seats can be installed where there are concerns of antisocial behaviour.
- **Footway quality:** localised resurfacing, crossfall corrections, dropped kerbs/tactiles on desire lines, vegetation clearance/height-lifting for inter-visibility.

- **Materials & maintenance:** robust, easy-to-maintain finishes and planting suited to highway conditions; align with HBC/HCC maintenance standards and CIL-funding pragmatics.
- **Street trees and planting:** low-maintenance, highway suitable, climate resilient planting and trees should be considered to improve the attractiveness of the route. Seasonal bulbs could be planted in existing grass verges to provide interest and colour along the route, to extend seasonal planting from the town centre.
- **Consider SuDS in areas of localised runoff ponding:** Consider sustainable urban drainage (SuDS) features in locations where localised ponding occurs; although Stakes Hill Road is generally low flood risk, targeted SuDS can help slow, store or infiltrate runoff and reduce pressure on older drainage systems.

Figure 28 Street library on Stakes Hill Road

12. Recommendations and next steps

Design proposals

Proposed improvements to NCN222 along Stakes Hill Road aim to create a high-quality walking, wheeling and cycling route, improving safety and supporting the physical and mental health of local people. A more accessible route into central Waterlooville from the south could encourage more residents to choose active travel for everyday journeys.

As indicated in the Design Options section, it is considered that **Option 3,** designing for a protected cycling space alongside footway improvements - represents the most favourable option across a broad range of criteria, and avoids the requirement for a bus gate which may impact deliverability.

Obtaining stakeholder and community feedback on the recommended option will be a key next step for the project so that a preferred option can be confirmed and taken forward for outline design and an accessibility audit would also provide important information for designers.

It may be helpful to develop a vision statement for the design project which describes the aims and objectives of the design work and it is recommended that a holistic approach is adopted from an early stage to optimise the opportunities for improvement across the criteria evaluated in the RAG assessment.

If the preferred design option includes kerb and drainage alterations, this may present an opportunity to incorporate Sustainable Urban Drainage features into the design.

It may be possible to develop the design at concept stage using measurements obtained through site walkover, provided that the limitations of this approach are identified and accepted. However, in future a topographical survey and other surveys will be required as the scheme is progressed.

Design work will be subject to Construction Design Management (CDM) legislation and it will be important to clarify who holds the key responsibilities of Client, Designer and (when applicable) Contractor.

All designs should be risk assessed in order to identify and mitigate key risks.

A comprehensive EQIA should be carried out as part of the next phase of design development, to align the scheme with Public Sector Equality Duties.

Engagement and scheme delivery recommendations

Below are the recommended next steps for engagement and scheme delivery.

Engagement with stakeholders

The list of stakeholders for this scheme may include, but is not limited to:

- Highway Authority
- Residents living along the route and in adjacent streets
- Local businesses
- School pupils and those making frequent journeys to nearby schools and colleges
- Local walking, cycling and other interest groups in the area
- Local disability groups
- Local politicians at all levels
- Public transport operators
- Emergency services
- Statutory interests

Open and transparent communication will be required with all stakeholders, clearly setting out the proposal and the benefits to the local community. Some opposition may be encountered, particularly in relation to traffic calming measures, making early engagement essential and a vital opportunity to

demonstrate support for the scheme and to identify any concerns. The local community in particular should be given the opportunity to share their views (via a combination of online surveys and in-person workshops), to provide an opportunity to shape the designs.

Funding

Following initial funding for this feasibility study by Active Travel England's Paths for Everyone Programme, there is potential for further funding opportunities as the scheme moves through the development pipeline. Other potential funding sources could include the Active Travel Fund, Community Infrastructure Levy (CIL) or Section 106 developer contributions. This should be discussed between Hampshire County Council and Walk Wheel Cycle Trust as further tranches of ATE funding become available.

Construction

As the Highway Authority, Hampshire County Council will be well placed to construct the scheme/commission construction. This may include HCC HES engineers carrying out the final stages of detailed design, commissioning any further required surveys, and tendering. Prior to construction commencing, the local community and statutory consultees will need to be informed of the works, road closure dates and any diversions, by Hampshire County Council. WWCT can support HCC with some of these tasks if desired.

Promotion

Although the route is not new, promoting the improvements to safety and accessibility is important to encourage behaviour change. Key stakeholders, social media, local authority channels and community bulletins should be used to raise awareness of the improvements. Working with local walking, cycling and disability groups may also create opportunities for guided walks or rides, to introduce new users to the route, alongside behaviour change work in the local schools, to maximise the benefits of the scheme.

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