



Sniperley Healthy Active Travel Connectivity Plan

Durham County Council

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Quality Control

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Background

WSP were commissioned by Durham County Council (DCC) to produce a Healthy Active Travel Connectivity Plan for the Sniperley Development Site.

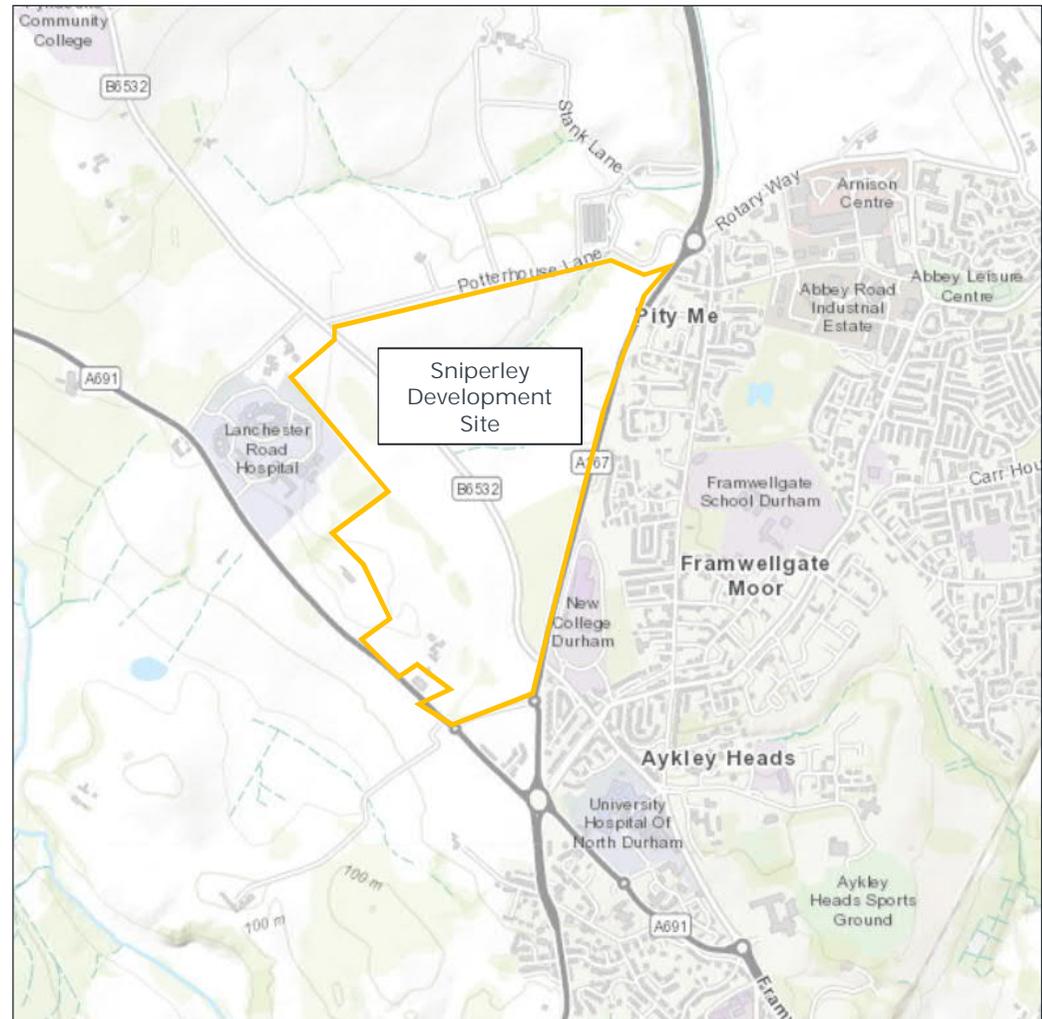
Sniperley is a large site north west of Durham City which has planning permission for residential development (1,700-2,000 houses). The site is well located with good access to nearby schools and services in Framwellgate Moor and Pity Me as well as the nearby Arnison Centre and Durham City. The land currently hosts arable farmland and a nature reserve and is well used for dog walking and exercise. Much of the woodland will remain in a linear park and will offer space for recreational use and active travel. Beyond the site, Sniperley is adjacent to the A167 with good transport links to Durham City, Chester le Street and Darlington including the Park and Ride, Great North Cycleway and walking and cycling routes. Many key destinations from the site are less than a mile and most under 5 miles presenting a good case for active travel.

A Health Impact Assessment (HIA) was undertaken for the County Durham Plan and it identified a number of recommendations of relevance to the Sniperley Development. These included promoting and prioritising sustainable modes of transport as a healthier approach, which is the purpose of this Connectivity Plan. Furthermore, the HIA highlighted the need to ensure sufficient access to amenities and facilities to improve mental health and increase mobility and participation, especially amongst older adults. This Connectivity Plan identifies several active travel routes from the Sniperley Development site to key destinations, such as shops, schools and greenspace. As such, the Plan supports the recommendations outlined in the HIA.

The Connectivity Plan illustrates the significant opportunities for active travel within and surrounding the Sniperley Development site. The remainder of this note includes:

- Key Active Travel Design principles;
- Introduction to Mobility hubs;
- Introduction to Park and Pedal;
- Proposed Sniperley Development site and existing network; and
- Identified interventions, including costing and funding opportunities.

Figure 1: Site location



1. New or improved footway connections

The provision of footways connecting to residential units to local amenities is essential for the facilitation of pedestrians' movements. The five key principles for the design of pedestrian infrastructure are: coherent, direct, safe, attractive, and comfortable.

What the intervention would deliver:

- This intervention would improve pedestrian connectivity to local amenities and would form a comprehensive, permeable and logical network. Provision or improvement of footway connections will improve personal safety and minimise physical harm from collisions with vehicles.

Intervention design considerations:

- Identifying key walking trip attractors and desire lines;
- Provision of direct and safe routes for pedestrians;
- Resurfacing improvements;
- Provision of street lighting and CCTV security cameras to improve personal safety and natural surveillance;
- Provision of dropped kerbs and tactile paving;
- Public realm improvement; and
- Inclusive design to account for people with disabilities or with pushchairs.



Example of shared space street



Example of resurfacing and dropped kerb



Example of pavement widening and reduced kerb radii

2. New or improved cycle infrastructure which might have light-segregation from motor vehicles.

Nationally, the needs of cycle users have been poorly understood until recently, and the lack of cycle-specific infrastructure has been identified as one of the key factors in suppressing demand.

What the intervention would deliver:

- This intervention would improve connectivity for cyclists within the site and to surrounding key destinations. This would also accommodate a forecasted growth in cyclists by addressing gaps in the existing network.

Intervention design considerations:

- Existing cycle infrastructure and facilities;
- Existing motorised traffic flows and speed on the route;
- Carriageway width availability;
- Identifying key walking trip attractors and desire lines;
- Inclusive design, catering for all potential cyclists and their cycles;
- Consistency and continuity;
- Distinction between cycling and walking as modes of transport;
- Fully kerbed cycle tracks provide the highest level of provision for cycle users with separation from both the carriageway and footway;
- Shared use infrastructure is not recommended on routes with high pedestrian or cyclists flows;
- Side street routes; and
- Maintenance.



Example of light segregation



Example of kerb segregated cycle lane



Example of semi-segregated stepped cycle track



Example of bi-directional cycle track

3. Traffic calming measures

Quiet and low traffic streets could be made more attractive and comfortable for cycling and walking through the implementation of traffic calming measures. Traffic calming measures are suitable when there are limited opportunities for improvements due to constraints and conditions, such as narrow carriageway width and area characteristics, which deter introduction of LTN1/20 cycle infrastructure on the route. Most residential streets in new developments might be suitable for cycling in mixed traffic as the speed and volume of motor traffic is anticipated to be low.

What the intervention would deliver:

- This intervention could deliver an increase in cycle trips on residential streets, connecting to local amenities, where cyclists could be safely integrated with motor traffic.

Intervention design considerations:

- Streets with <2,500 motor vehicles per day;
- Introducing 20mph speed limit;
- Introducing raised tables;
- Tightening side road radii in order to reduce entry/exit speeds, but potentially using overrun areas to allow access for larger vehicles where required;
- Removing the centreline to create visual road narrowing;
- Using horizontal deflection, such as intermittent road narrowing and chicaning to reduce speeds with provision for cycle bypasses or chicanes and build outs;
- Using vertical deflection, such as sinusoidal speed ramps;
- Using cycle symbols on the carriageway to reinforce the route for cycle users and car users.



Example of 20 mph zone



Example of traffic calming scheme with planting and build outs



Example of build outs



Example of centreline removal



Example of carriageway narrowing and give way

Key Design Principles



4. New or upgraded crossing facilities which facilitate or enhance accessibility for pedestrians and/or cyclists.

What the intervention would deliver:

- This intervention would improve connectivity and safety for both pedestrians and cyclists. New provision of crossings would provide increased directness between origin and destinations.

Intervention design considerations:

- Directness of the route;
- Frequency of required stops or give ways at junctions or crossings;
- Minimising length of delay at junctions or crossings;
- Existing motorised traffic flows and speed on the route;
- Bus stops laybys; and
- Side streets.



Example of tiger crossing



Example of raised zebra crossing



Example of toucan crossing



Example of Dutch roundabout



Example of raised entry treatment and continuous footway

Key Design Principles



5. Install secure cycle parking facilities throughout the site

A lack of or poor quality cycle parking is likely to be a deterrent to cycling because the existing cycling parking is not conveniently located and there is no high security storage for more expensive bikes.

What the intervention would deliver:

- This intervention would deliver cycle parking at strategic locations throughout the development site to encourage active travel.

Intervention design considerations:

- Key locations for consideration include local shops, school and park.



Example of cycle compound



Example of bike hangar



Example of cycle parking and bike racks

Introduction to Mobility hubs



Modern multi-modal and multi-functional interchanges



European concept to provide interchange between established and new modes alongside placemaking



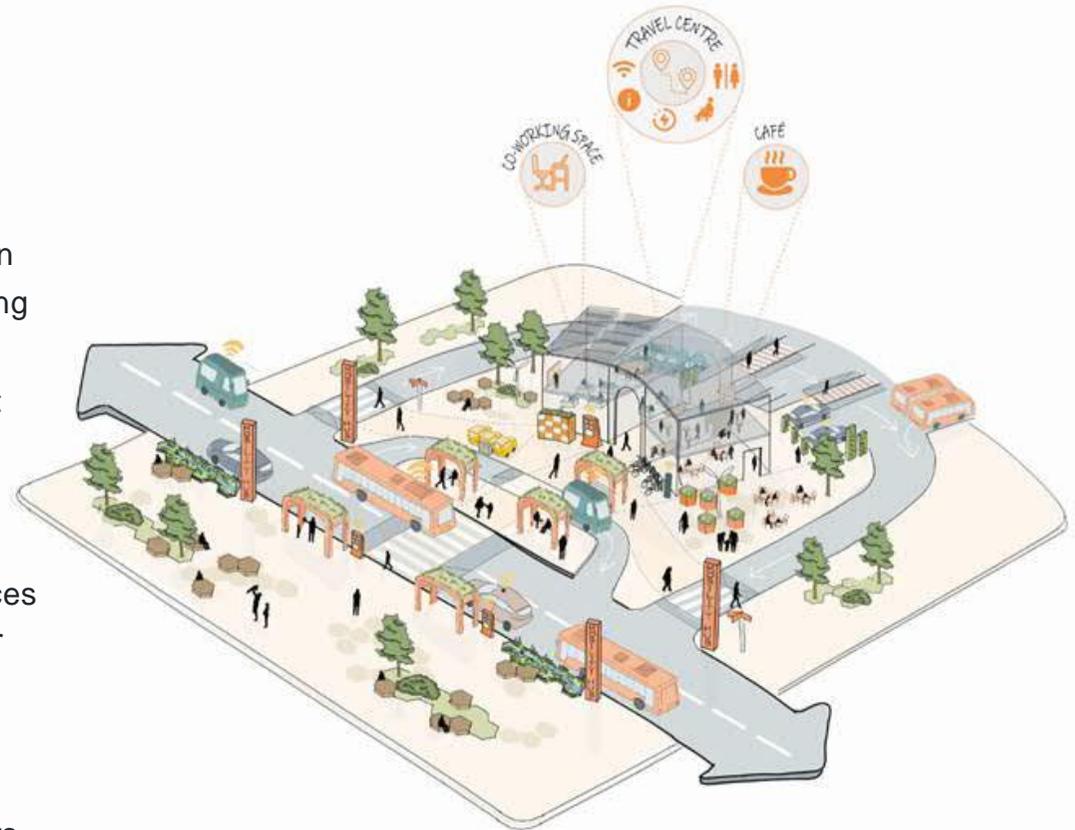
Evolving to become destinations in their own right through providing community and commercial functions



Modular concept applicable to many different places and tailored to local needs, with individual sites or networks providing hubs of different scales



Designed to deliver local priorities/outcomes including reducing congestion, simplifying journeys, increasing choice & supporting local economies



To inform the siting, design and uses of a mobility hub within the Sniperley site, it is recommended that sociodemographic data is analysed to establish the likely customer profiles of those living, working and travelling to the site. This will help to understand the potential use case for different forms of transport and the land use functions that should be incorporated to the mobility hub in order to maximise usage.

Park and Pedal

A Park and Pedal (P&P) scheme allows users to combine cycling with Park and Ride (P&R) services. For example a user could cycle to the P&R and use the bus service or drive to the P&R and cycle to their final destination.

P&P sites usually provide the following facilities:

- Safe and secure cycle parking e.g. bicycle locker or sheltered bike stands.
- Information regarding routes from the car park to the city centre or other nearby attractions.
- E-bike's or pedal bicycles to hire.

Existing Park and Pedal Sites

York Park and Pedal:

- Free parking.
- Provides the option for people to either bring their bike with them on each trip or they can store their bike securely at a Park & Ride site using one of the lockers.
- Secure cycle lockers with 24hr CCTV surveillance.

Canterbury Park and Pedal:

- Free parking.
- 28-space storage shed. The shed can only be accessed via a key card, is available all the time and contains maintenance equipment.
- Two signposted routes into the city.

Cycle Storage Options

Single bike locker:

- Single locker per bike
- Secure and weatherproof
- Height: 1205mm, Width: 900mm, Depth: 1900mm

Cycle Canopy:

- Cycle canopy covers 10 bicycles
- Cyclists to use own locks and security
- Width: 4100mm, Depth: 2770mm

Bicycle Hire

Bicycle hire could be provided to allow users without access to their own bicycle to travel actively for part of their journey.

Bicycle hire schemes in the UK have found a greater uptake of electric bicycles in compared to pedal cycles, with a narrowing cost difference.

Co-wheels is a community interest company designed to reduce the number of privately owned vehicles on the road. The companies equipment, maintenance and management costs for their bike hire service are shown in the adjacent table (costs provided in 2019).

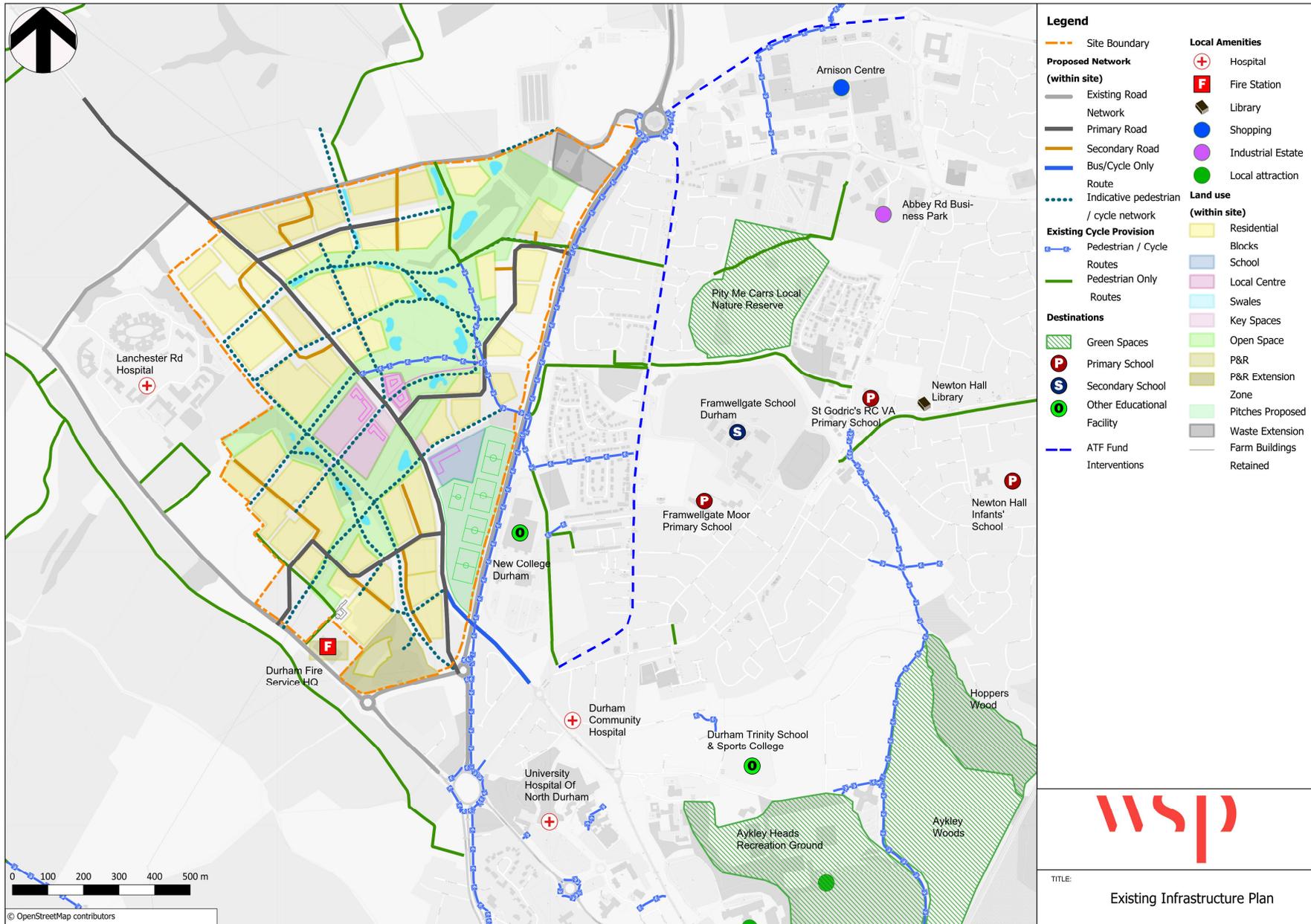


Example of cycle canopy

Co-wheels e-bike hire cost

Item	Number of Units	Cost per Unit	Total
E-bikes	30	£1,100	£33,000
Delivery of E-bikes			£800
Monthly checks (per annum)	30	£180	£5,400
Helmet	30	£30	£900
High Vis Jacket	30	£45	£1,350
Pannier	30	£50	£1,500
D-Lock	30	£30	£900
Bike Box	30	£1760	£52,800
Consumables for E-Bike			£2,000
Management costs (per annum)			£5,000
Total			£103,650

Existing infrastructure plan





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