

# CAMBRIDGE SCIENCE PARK NORTH.

## MOBILITY STRATEGY SUMMARY

December 2021  
194827/P11



# Cambridge Science Park North

Trinity College's vision for Cambridge Science Park North (CSP North) is to create a quality place that helps Cambridge meet challenges associated with Climate Change.

A place that makes the most of its excellent location that encourages healthy living and contributes positively towards the local economy.

The mobility strategy is central to achieving the vision. The strategy builds upon the already excellent travel networks and the range of transport projects that are planned for the city. These projects will further enhance the importance of North East Cambridge as a hub and place for growth.

Within this context, the strategy reaches further, with the provision of facilities, people and systems to enhance the movement, seeking innovation and technology to achieve the vision.

There are challenges, particularly in the short term, to deliver development in North East Cambridge within the Trip Budget concept that is being put forward by Greater Cambridge for the North East Cambridge area.

The delivery of tangible transport interventions are essential to facilitate mobility patterns that help reduce vehicle movements in the area and support the planned growth.

Cambridge Science Park North has the ability to deliver early interventions that make a real difference and contribution toward the North East Cambridge Area Action Plan (NECAAP) objectives.



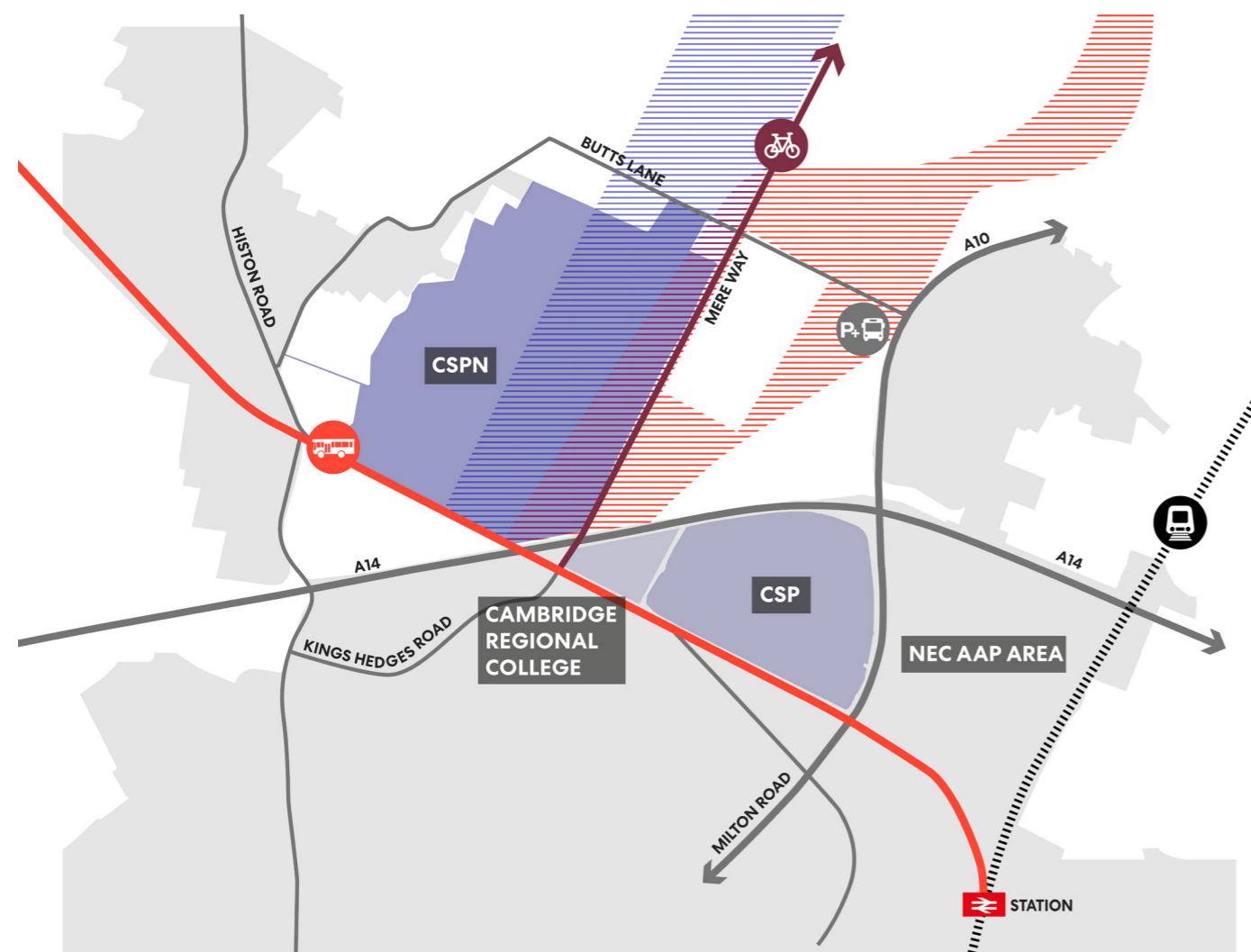
Location of CSP North in relation to existing movement corridors, Cambridge North Railway Station, CSP and the wider NEC AAP.

# The Right Location

The location of the proposed CSP North is superb.

Its characteristics include:

- Proximity to a major movement corridor where the existing Busway provides mass transit in the form of buses and a high capacity active travel corridor for pedestrians and cyclists
- Proximity to emerging new communities and growth at Northstowe and Waterbeach that will be linked by shared and active mobility corridors
- Close to Cambridge North Train Station providing access to the wider regions
- A culture that is already focused on sustainable and healthy living



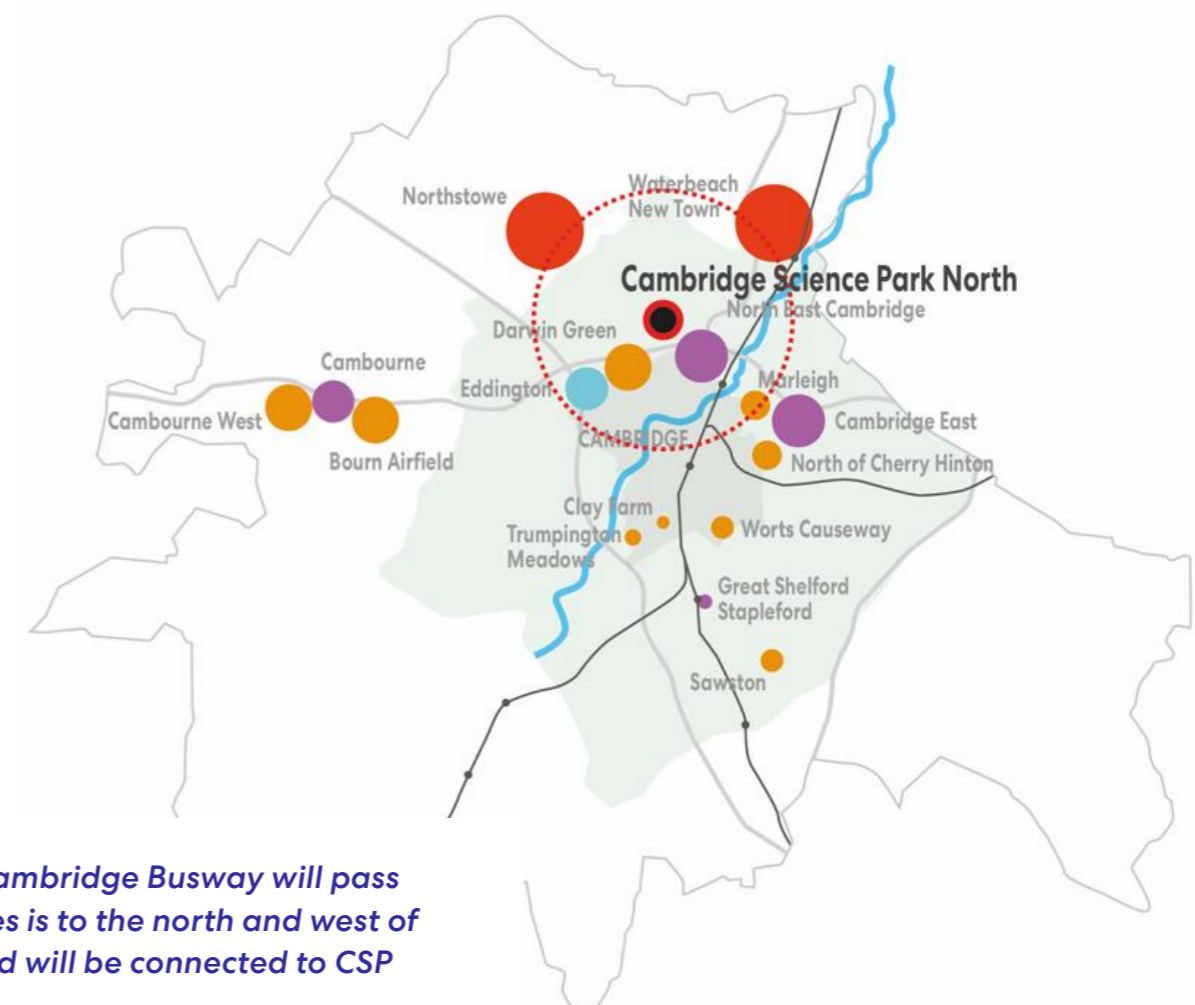
*The preferred routes for the Waterbeach to Cambridge Busway will pass through CSP North. The major growth in homes is to the north and west of Cambridge (Waterbeach and Northstowe) and will be connected to CSP North through movements corridors.*

The mobility strategy reflects the massively changing trends in attitude towards mobility and of the ways in which technology and constraints are changing the face of mobility.

There are several planned improvements and emerging proposals within Cambridgeshire. Some of these planned improvements will directly impact CSP North. These include:

- Waterbeach to Cambridge Busway where the preferred routes pass through CSP North
- Northstowe settlement
- Waterbeach settlement
- Enhanced and improved greenway networks such as Mere Way and the Chisholm Trail

The combination of new communities and population, and existing and improved strategic mobility options will ensure people are able to access CSP North. At a more local scale CSP North will introduce mobility improvements to improve accessibility.



# Early Delivery of Key Mobility Measures

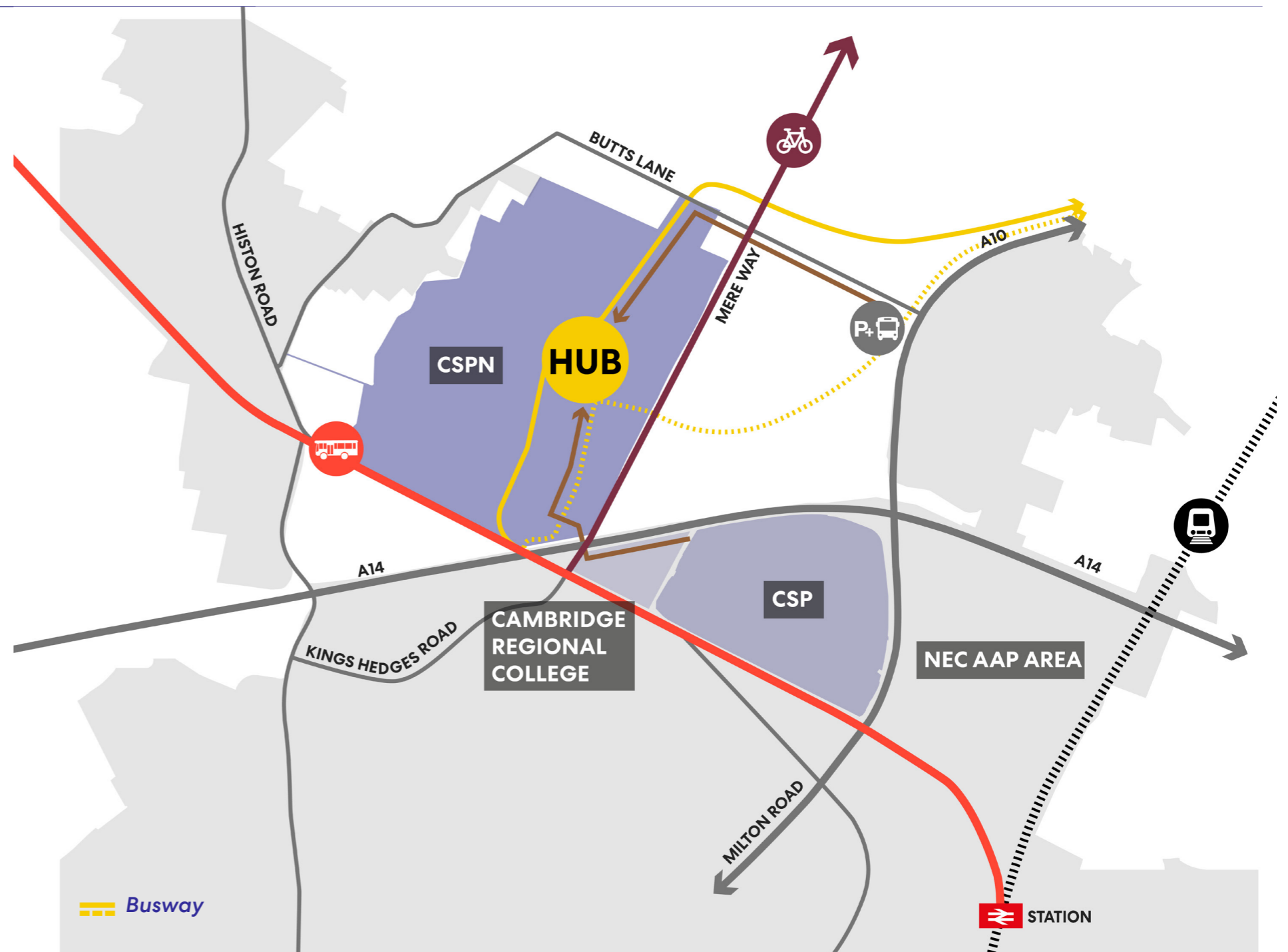
Cambridge Science Park North is at the confluence of several key movement corridors. Future employees of the site would be able to travel to work sustainably, with last mile journeys undertaken via active and sustainable transport.

The preferred route for the Waterbeach to Cambridge Busway will pass through CSP North. The NEC AAP evidence base identifies the need for a segregated public transport and active travel link from the Milton park ad Ride as a key measure of the overall Transport Strategy to allow development to come forward.

CSP North can deliver a first phase of the Busway link connecting consolidated parking or a relocated Park and Ride site to the existing Busway, providing a fully segregated link into NE Cambridge. The proposal would work either as a first phase should the route be placed directly to the north or as a spur should the route pass the existing Milton Park and Ride site.

CSP North can therefore deliver significant infrastructure improvements identified within the NEC AAP. No other site in the area is able to deliver infrastructure improvements as significant or anything that will singularly contribute positively to the Trip Budget.

A primary Mobility Hub located at CSP North would facilitate a direct route for pedestrian, cyclist and shared travel in the form of electric bus or Automated Vehicle pods to access the site.



*The provision of a Busway connection as a first phase of the Waterbeach to Cambridge Busway affords opportunity to relocate the Milton Park and Ride and displace parking from CSP. A Mobility Hub can provide for onward journeys by offering ebikes, scooters, electric bus shuttle services and Automated Pods.*

# Positive Benefits to the NEC AAP and Trip Budget

The NECAAP is predicted on the basis of development adhering to a Trip Budget.. Further, that approach identified that that existing CSP trips must reduce to the wider NECAAP sites to be developed and for new housing to be delivered.

The effect of delivering a seamless link from consolidated parking or Park and Ride facilities would be significant in terms of reducing the number of trips accessing Milton Road.

By making modest assumptions over the number of people who may choose to use new Park and Ride and last mile facilities, and ensuring this is available to workers within St Johns Innovation Park and Cambridge Business Park, a significant number of existing vehicle movements may be removed from Milton Road which would have a significant positive impact on the trip budget.

Factoring in those arriving from other destinations from the A14 and the directness of linkages to Cambridge Regional College and the potential for significant usage is clear.

With the range of existing and future movements that might take advantage of a Mobility Hub with fully segregated connections in to the heart of Cambridge Science Park and CSP North and wider NEC AAP there is potential to remove between *275 and 500 peak hour trips removed from Milton Road.*

Our analysis also shows that *20% of existing trips to Cambridge Science Park come from north of the Milton Interchange*, if it is assumed a similar percentage travel to CSP North a significant number of trips can be removed from the Milton Road corridor benefiting the trip budget.

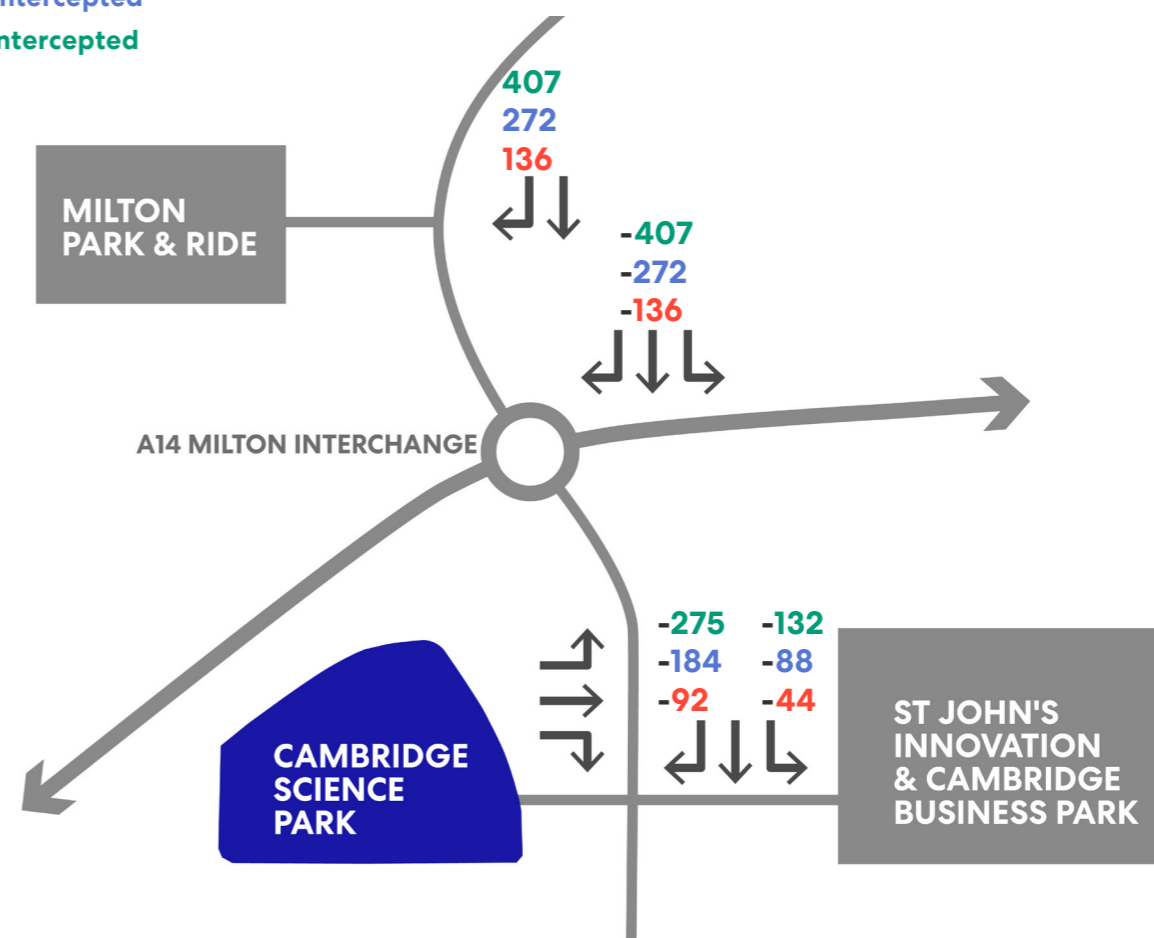
# 20%

Of existing and future trips into the NEC AAP could be intercepted

**Figure 1:** Potential Vehicle Numbers Intercepted by Enhanced Facility

AM Peak Hour (08:00-09:00)

- **25% of Trips Intercepted**
- **50% of Trips Intercepted**
- **75% of Trips Intercepted**



*The above figure provides an overview of the potential number of trips that might be intercepted by provision of an enhanced parking facility, connected to the wider NEC AAP area by a seamless movement corridor.*

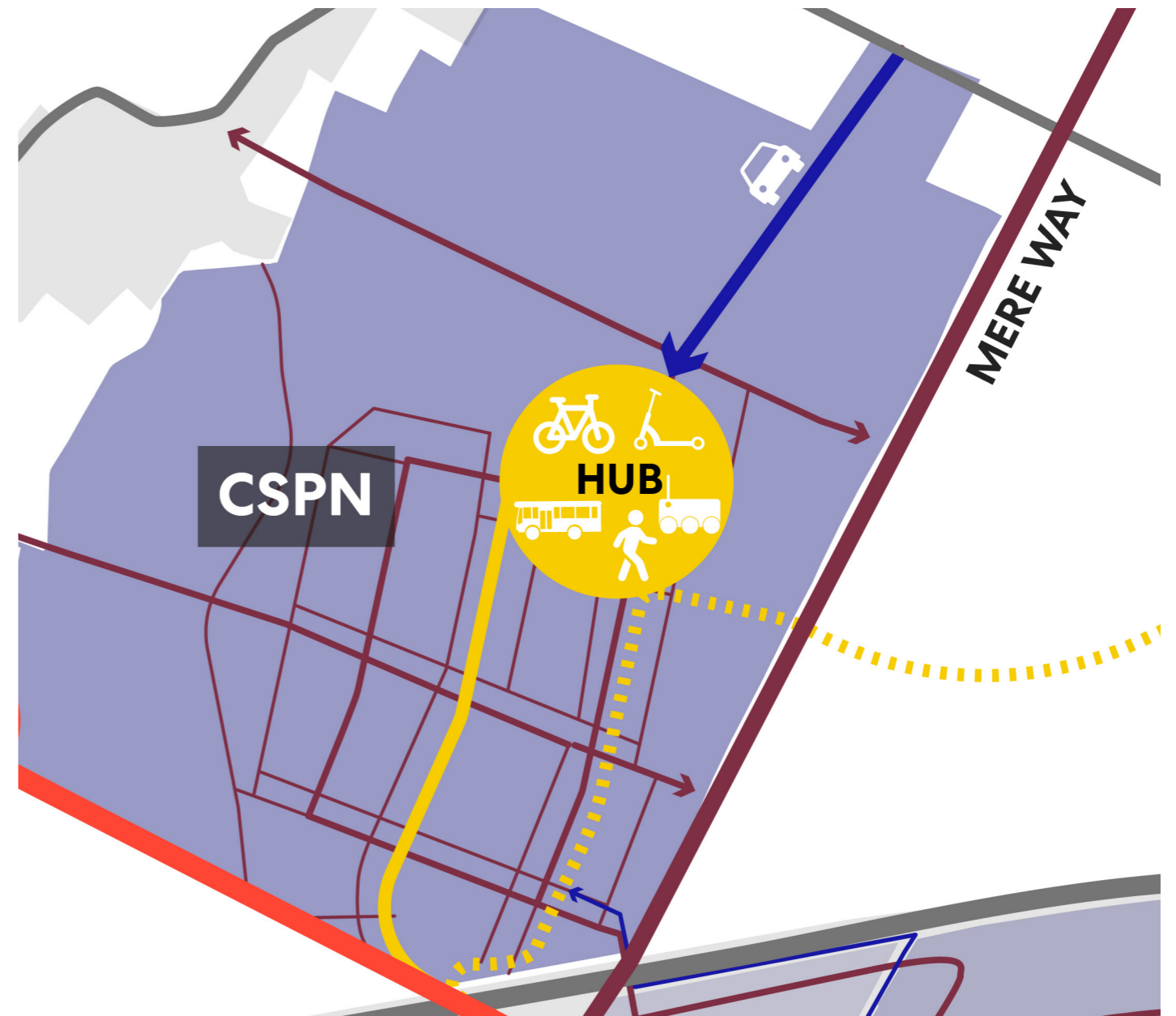
# Mobility Hub and Logistics Hub

A Mobility Hub will be provided at CSP North alongside consolidated car parking. The hub can act as a transition for car driver to transfer to sustainable modes of travel such as walking, cycling, scooters or shared travel options such as electric shuttle buses and automated pods.

Collectively these will deliver a car-free pedestrian scale campus and a step-change in how employees travel to work.

The hub will also provide a logistics hub for the site. Deliveries will be made to the hub and these will be transferred out via drones, pods, electric vans or cargo bikes.

Providing a consolidation and logistics centre at CSP North has the potential to remove a number of vehicle movements from Milton Road. Using traffic surveys of Milton Road used in the AAP Evidence Base, *70 to 125 goods vehicles were found to enter the NEC AAP area during the peak hours*. With a high proportion of those vehicles being delivery vehicles, the potential reduction in vehicle numbers that a full segregated and connected remote consolidation centre can provide is clear.



*A primary mobility Hub located to the north of the site will minimise vehicle movements across the wider Campus. Consolidated parking with access to onward mobility options such as bikes, scooters, shuttle services and Automated Pods will provide access to workplaces.*

# Active Travel

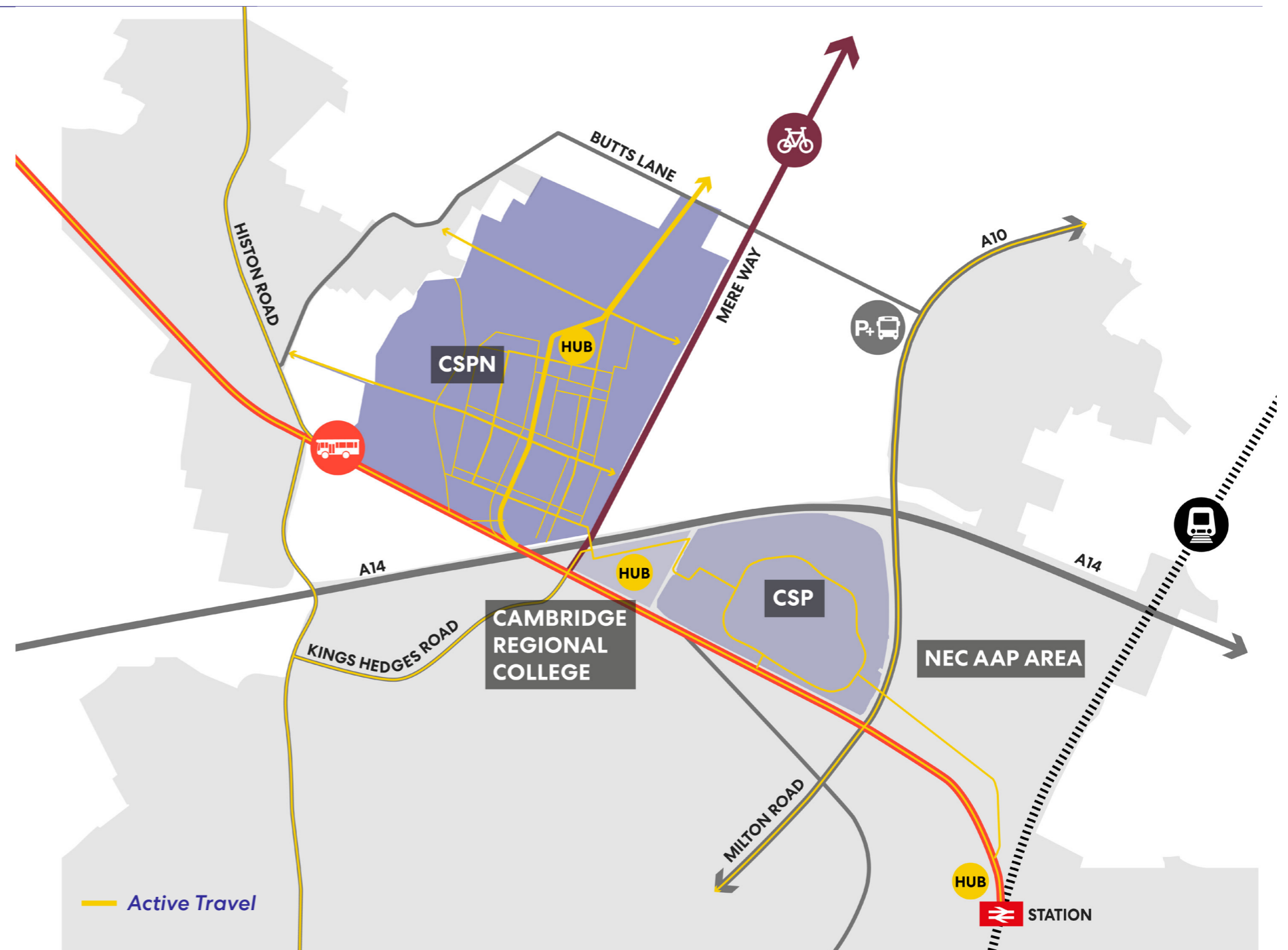
There are substantial active travel corridors surrounding the site. These include:

- Active travel corridor along the busway leading to Cambridge North Station and St. Ives;
- Cycleways along Histon Road, Milton Road and King Hedges;
- Cycleways between CSP North, CSP and the remaining NEC AAP;
- There are several proposals connecting the site to the new communities at Northstowe and Waterbeach enabling people to travel sustainably.

The development proposals include cycle routes throughout the site connecting to Butts Lane, the Regional College, wider NEC AAP and onto Cambridge North Station.

There will be secondary mobility hubs located in these locations to drop off bike and scooter hire as well as make repairs.

Improvements to Milton Road with enhanced pedestrian and cycle crossing facilities at grade will provide movements between the two area further encouraging people to walk and cycle between the two sites. Improvements to the Milton Road junction to prioritise pedestrians and cyclists can be delivered.



*CSP North can take advantage of existing, planned and new active travel corridors providing access to a wide area. A series of Hubs across the NEC AAP area can provide Micromobility solutions such as ebikes and scooters, providing last mile connections between the primary Mobility Hub at CSP North and from Cambridge North Station. Improved Milton Road crossings can prioritise pedestrians and cyclists.*

# Shared Travel

The delivery of the Mobility hub and connecting Busway link will provide effective last mile, segregated opportunities for travel into the NECAAP area.

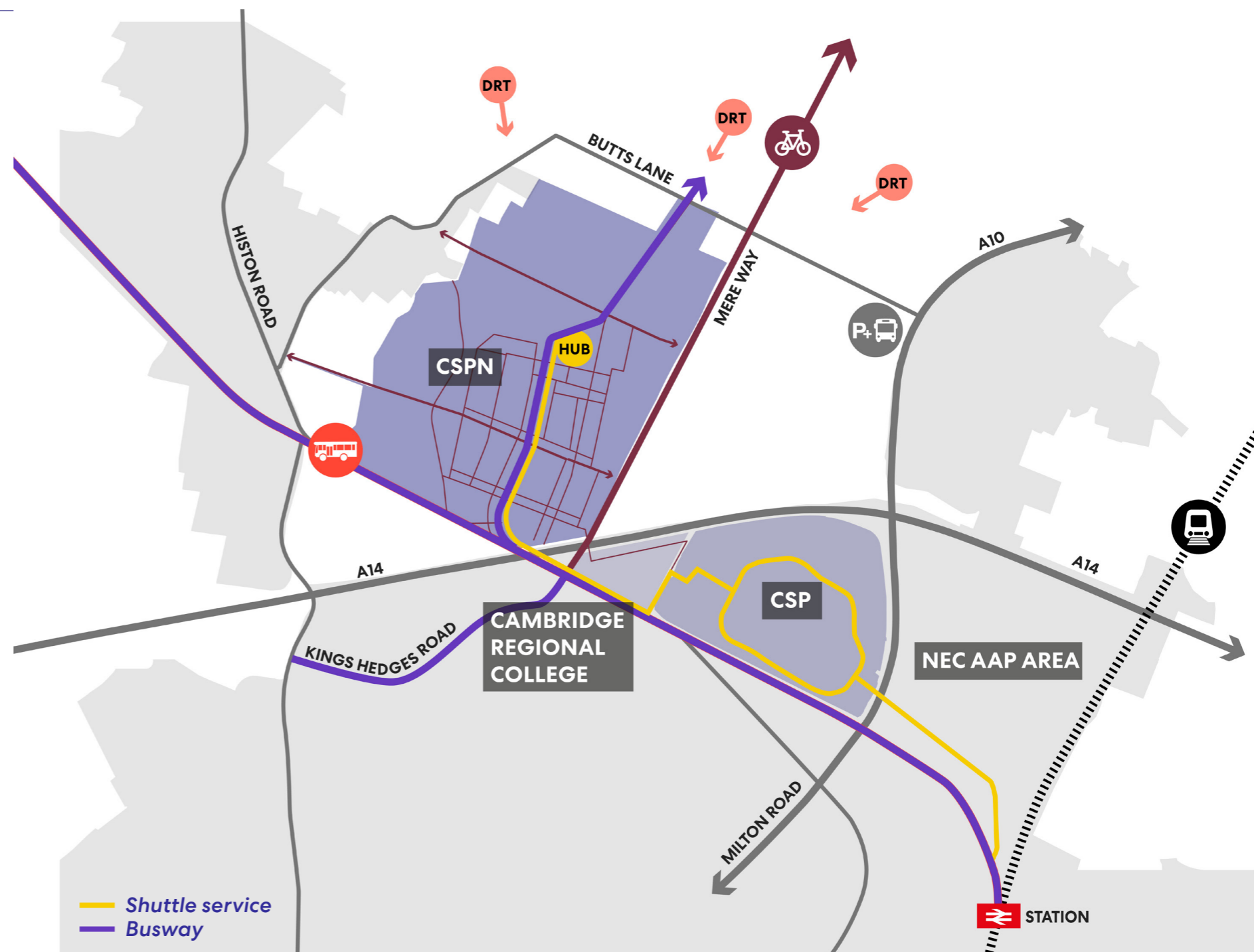
Electric vehicle shuttle services, or as technology progresses, Automated Vehicles, can operate on a loop between CSP North, CRC, CSP and Cambridge North Station.

The last mile links from Cambridge North Station can readily be connected in this way.

The existing Busway provide real opportunity to connect to local settlements and the emerging community at Northstowe. The Waterbeach to Cambridge corridor will link that community to places of employment at CSP and CSP North. Onward link to Orchard Park and Darwin Green and Eddington will also be possible.

A Demand Responsive Travel (DRT) network covering the northern villages will provide real travel alternatives for those locations not connected by alternative mass transit systems.

The emphasis on shared mobility and bus services presented by the Mayor can be fully embraced by the strategy at CSP North and the provision of dedicated traffic free infrastructure.



The connection to the Busway provides real opportunity for a seamless link into the NEC AAP area. Shuttle services or Automated Pods can connect to the site and provide a circular services between CSP North and Cambridge North Station. Demand Responsive Transport (DRT) can provide opportunity for travel from local villages not otherwise connected to movement corridors.



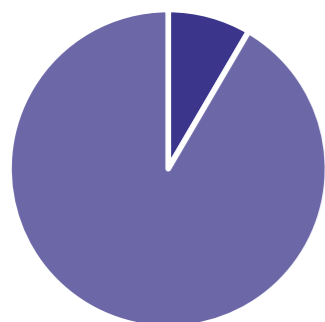
# Future Travel Patterns

In the future we would expect people to work from home more not only because of advances in technology but also due to the way the COVID-19 pandemic has changed the way we work.

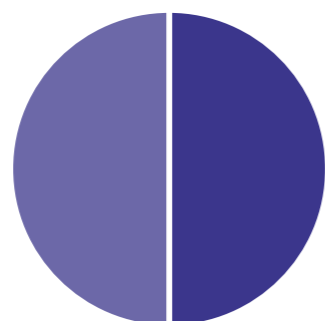
Currently, **survey data for the existing CSP shows that 4% work from home.**

However, **even one day a week working at home means 20% of the time people are not travelling.** One fifth of journeys to work will not occur.

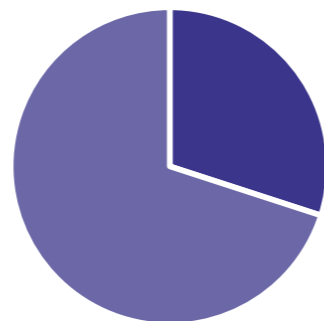
Working from Home Pre COVID



Working from Home During COVID



Working from Home Post COVID



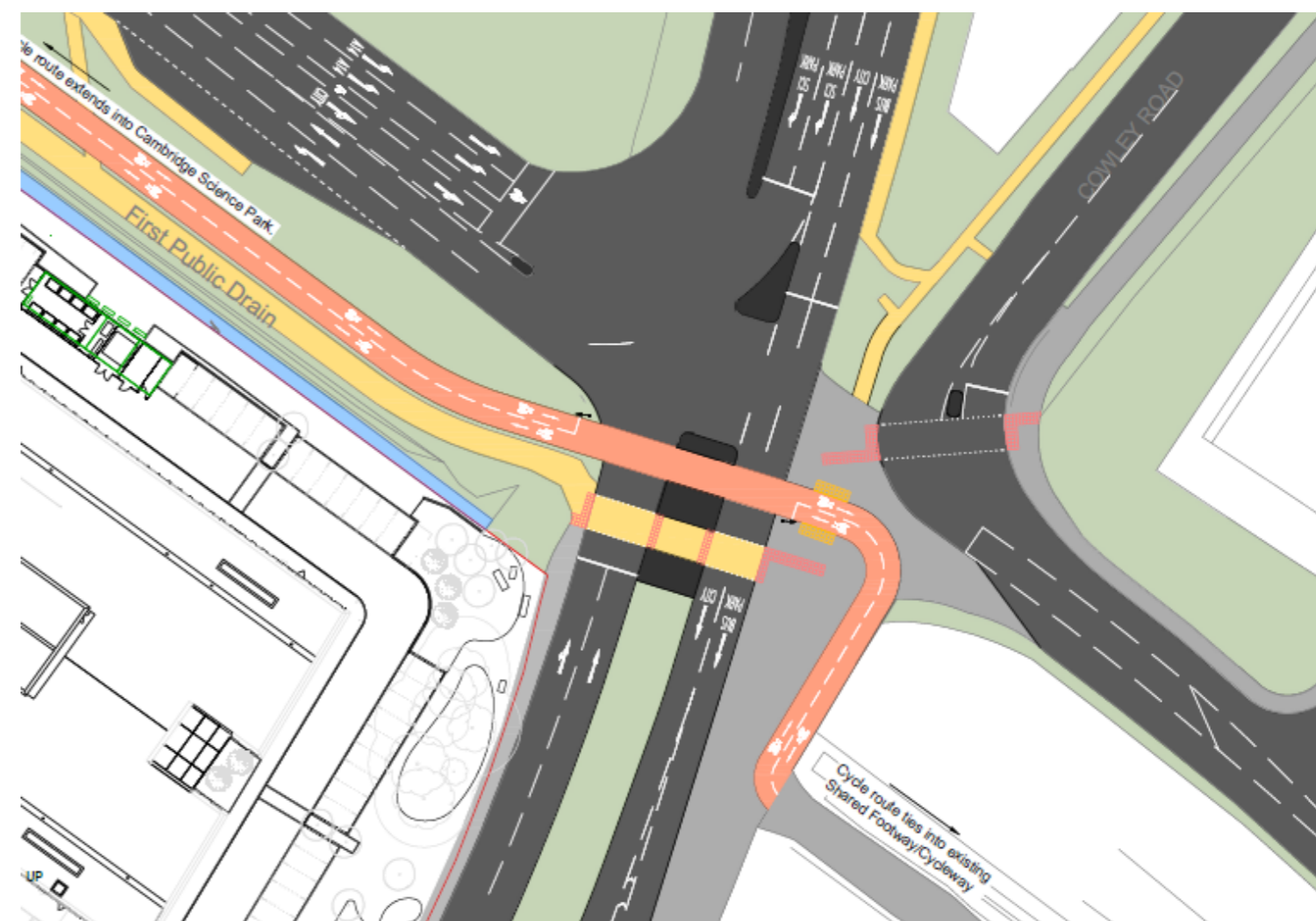
Over time, people make choices about their place of work and where they live. In part, those choices relate to the way they might travel and how they might get there. In connecting residential and employment, sustainable travel patterns will result, but only if these options are in place.

It so happens that growth locations such as Northstowe already have excellent ways to travel to and from CSP North. Additionally, many new mobility measures are planned and CSP North can deliver some of those.

The combination of new communities and population, and existing and improved strategic mobility options will ensure people are able to access CSP North.

The best example would be those future communities living within the wider AAP area. In collaboration with the promoters of the Anglian water site, it is forecast that **15% to 20% of economically active people living within the NECAAP area will work at CSP.**

Through improvements to Milton Road, where early interventions to provide enhanced, dedicated and separate pedestrian and cycle crossing facilities have been developed, all will be able to walk or cycle to work. This is a significant contribution to overall NECAAP sustainability objectives.



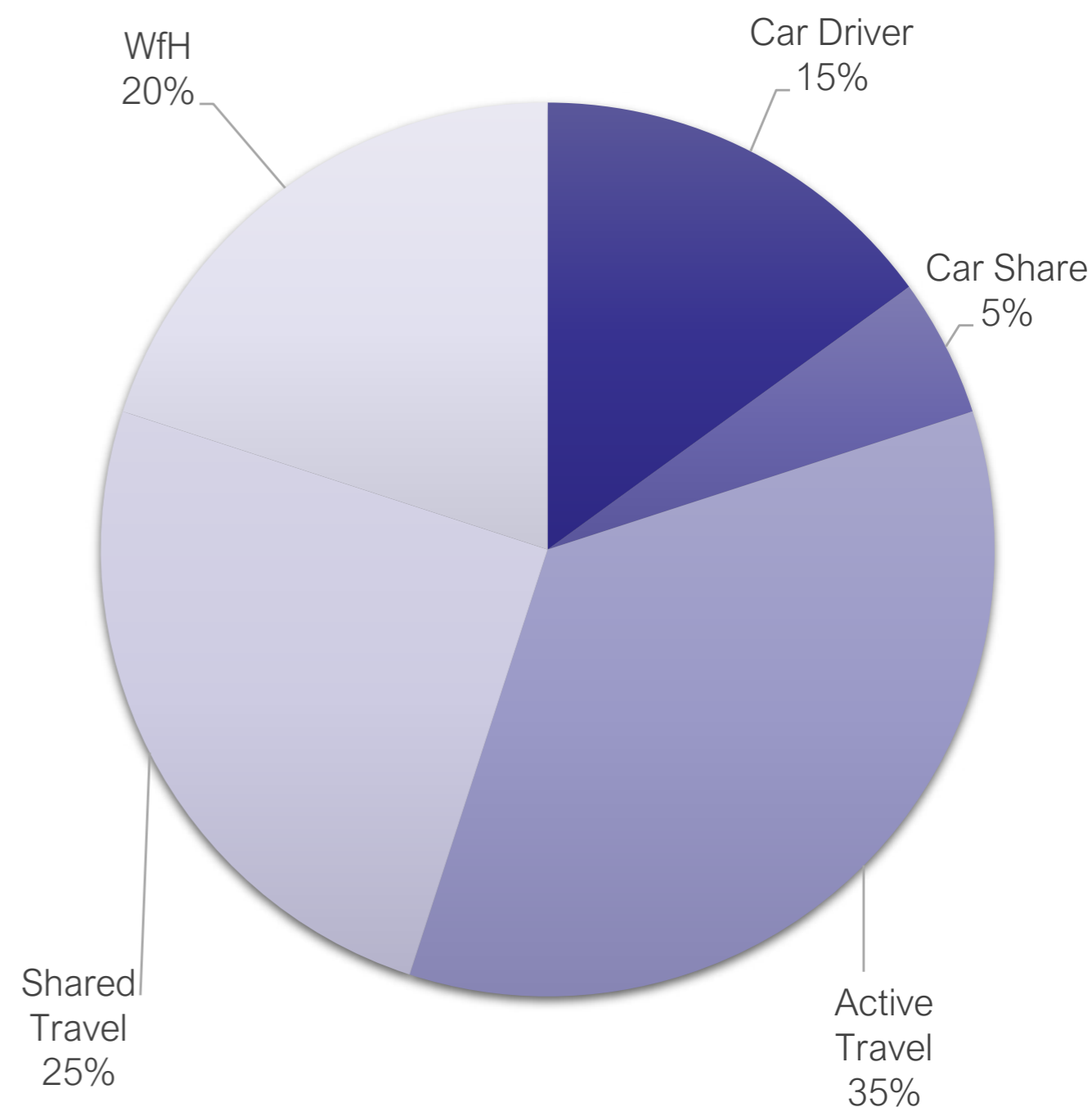
*Improved Milton Road crossings can include at-grade, dedicated cycle crossings providing separate facilities for pedestrian and cyclists without being asked to divert to alternative structures such as underpasses or bridges.*

# How People Might Travel to CSP North

The combination of mobility measures deliverable through CSP North, the accessibility linked to areas of housing growth and the mobility options already available will contribute positively towards ensuring sustainable travel patterns at CSP North.

With this in place, we might expect **80 to 90% of people to travel by sustainable modes.**

Method of Travel	Total
Car Driver and Park and Ride	525
Car Sharer	175
Active Travel, walking and cycling	1,225
Shared Travel, train and bus	875
Work from home	700
<b>Total</b>	<b>3,500</b>



# Summary

CSP North is at the confluence of key movement corridors which will enable future employees to travel to work sustainably.

The ability to deliver a first phase of the Waterbeach to Cambridge Busway will provide the seamless link between Park and Ride facilities and the NECAAP the=at the Transport Evidence Base identifies.

Coupled with a Mobility Hub providing mobility solutions such as ebikes, scooters, cycle routes, electric shuttle services and Automated Pods, CSP North will ensure innovative and highly sustainable travel patterns.

The consolidated parking will result in a lightly trafficked environment allowing the Campus to prioritise people and allow movement across with people walking and cycling

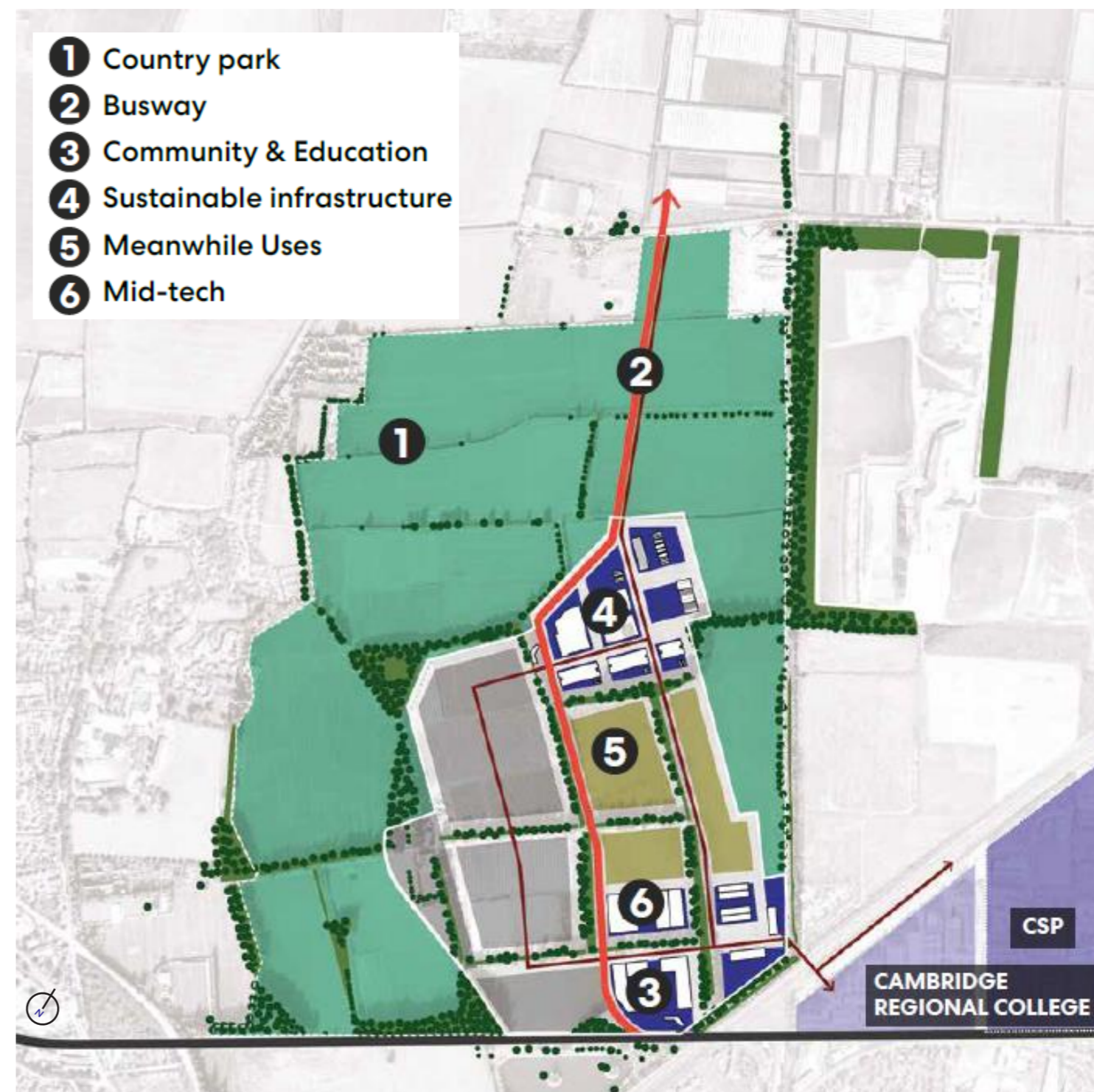
CSP North has the space to deliver at an early stage a Logistics Hub, reducing trips into the NECAAP area and allowing last mile delivery solutions through cargo bikes, electric vans and drones.

## Positive contribution to the NECAAP

A range of measures are identified in the Transport Evidence Base and CSP North can deliver several of these. Significantly, the seamless traffic free link from Park and Ride is identified and CSP can deliver this alongside consolidated, displaced car parking. The space for and early delivery of a Logistics Hub will further add to the strategy making a significant positive contribution towards the Trip Budget.

The potential reduction in trips on Milton Road as a result will help to achieve the Trip Budget that the NECAAP advocates.

Without significant interventions such as those which may be delivered by CSP North, a reduction in vehicle trips at CSP, sufficient to allow the delivery of the wider NECAAP will be difficult to deliver.



Development of the CSP North Masterplan by Perkins and Will.

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