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Individual Scheme Elements

- Cambridge Biomedical Campus and Francis Crick Avenue
- Nine Wells Local Nature Reserve to Granham's Road
- Road crossings, Public Right of Way crossings and stops along the route
- What will the bridges look like?
- The Active Travel Path
- A11 Travel Hub
- Linear Park - What will this be?
- Construction
- Land and Property





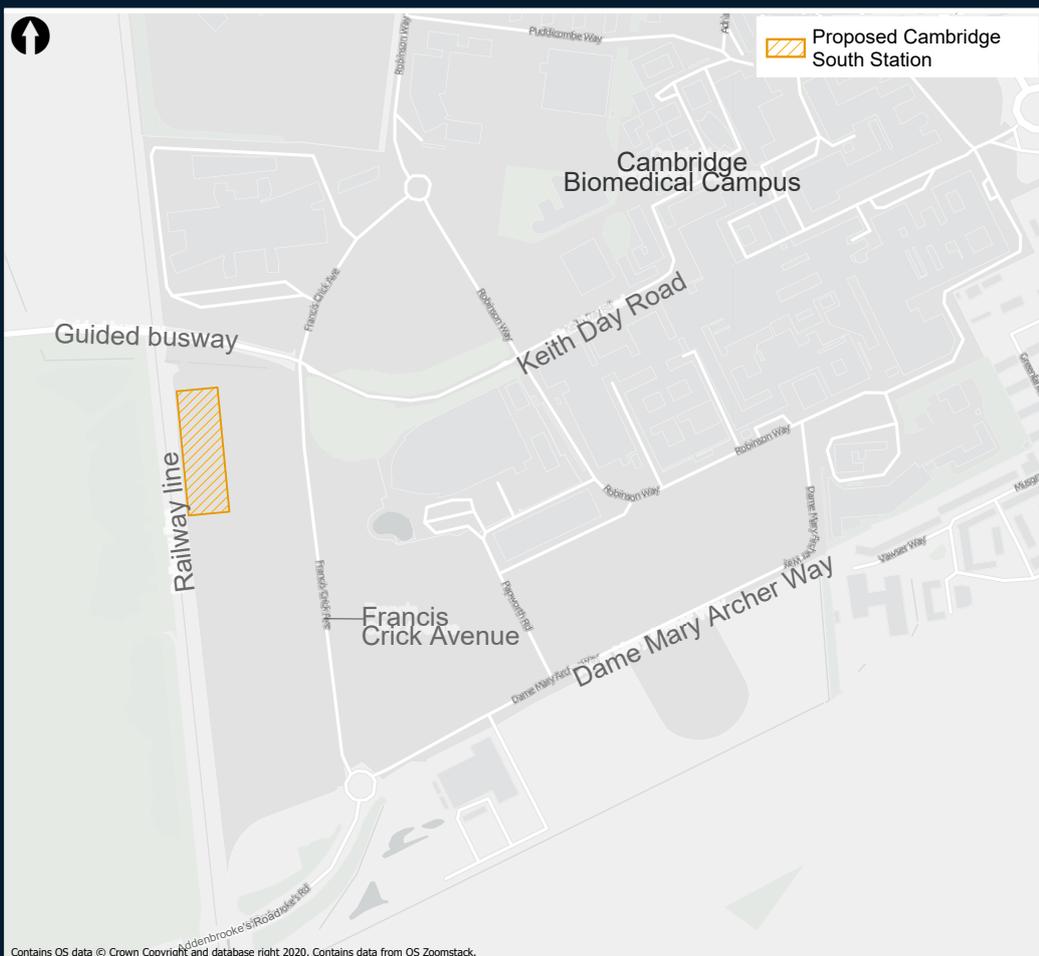
Cambridge Biomedical Campus and Francis Crick Avenue

The existing Francis Crick Avenue forms a section of the arterial route of the Cambridge Biomedical Campus linking with Robinson Way to the north via a roundabout junction and with Dame Mary Archer Way / Addenbrooke's Road via a roundabout junction to the south. Addenbrooke's Road provides access to the A1301 and the M11. The current layout is shown below.

Francis Crick Avenue is currently a two-way street subject to a 20mph speed limit. Mandatory cycle lanes are installed within each carriageway and a footway is provided on both sides of the street. Francis Crick Avenue is not a public highway.

Wide open drainage channels are provided along the verges along the length of Francis Crick Avenue and trees are planted on both sides.

The guided busway enters Robinson Way / Francis Crick Avenue via a signalised junction prioritising the buses over road users, and buses operate along Francis Crick Avenue. There is a single zebra crossing located half way along Francis Crick Avenue.





Changes will need to be made to Francis Crick Avenue to create a safe, segregated route for public transport to connect with the existing guided busway. The CSET route would join Francis Crick Avenue at the roundabout with Dame Mary Archer/ Addenbrooke's Road and the route would be in the centre of the road, with one way lanes for other road users on either side.

There will be a new interchange with the guided busway that allows for users of the proposed Cambridge South Station to access the station and to cross the road junction at the north end of Francis Crick Avenue and the guided busway route. This interchange is proposed to reflect the open public realm feel of the area adjacent to the junction and will include a diagonal crossing of the entire junction for pedestrians and cyclists.

The new avenue layout means road traffic along Francis Crick Avenue will have to use the new one way system along the avenue to enter and depart from the premises fronting onto the avenue.

There will be a stop for CSET vehicles on Francis Crick Avenue which will serve as an interchange with the proposed Cambridge South Station, the campus hospitals and employment centres, and guided busway services.

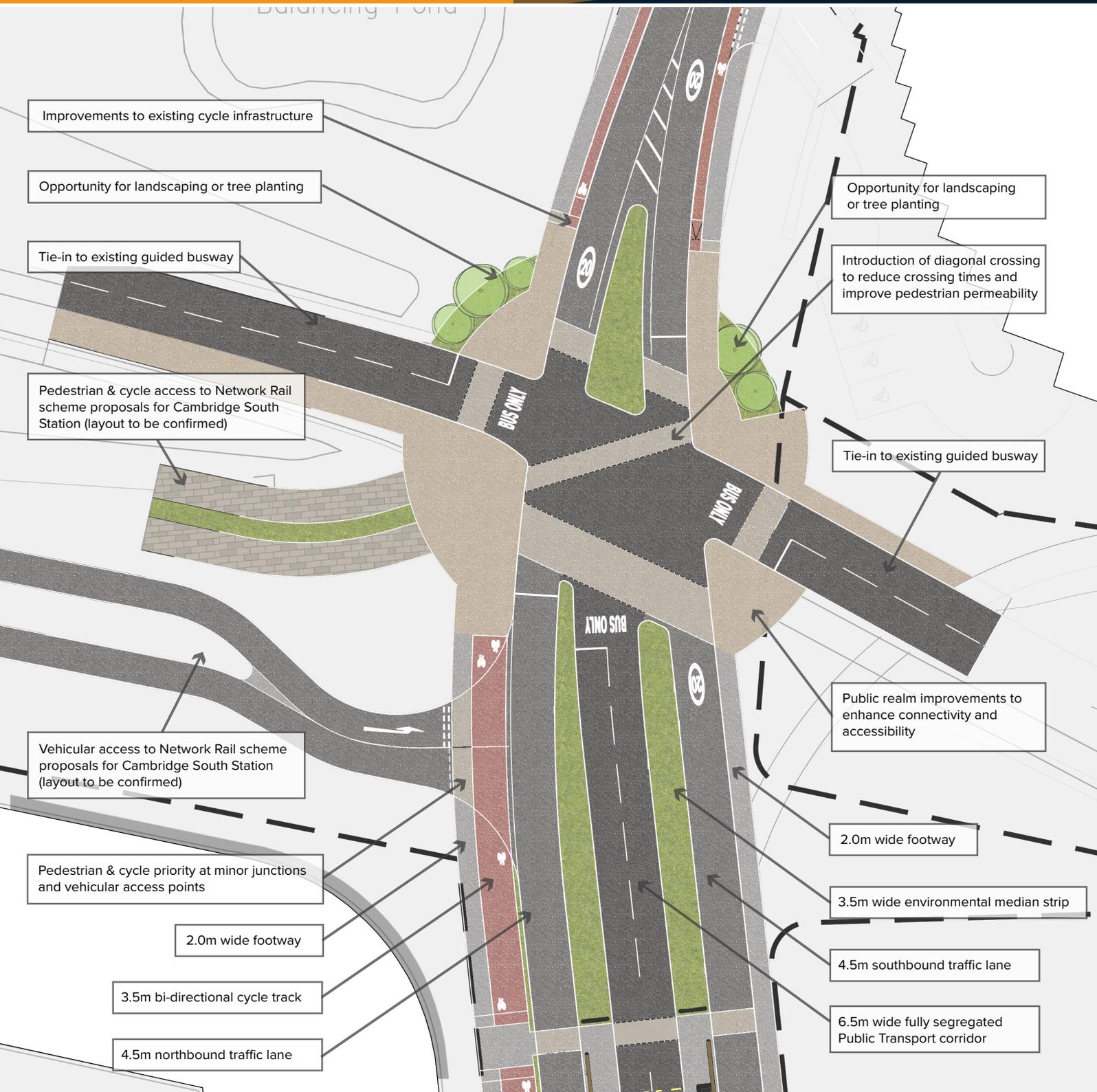
There will be a segregated footway and two-way cycleway along the western edge of Francis Crick Avenue which will connect to the DNA path at the southern end of Francis Crick Avenue. The footway will be 2m wide and the cycleway will be 3.5m wide. Cyclists would have priority to cross access roads off Francis Crick Avenue.

There will also be a 2m wide footway on the eastern side of Francis Crick Avenue.

The proposed new Francis Crick Avenue layout is shown in the figure on the left.

The existing open channel drainage features will be incorporated into the design as culverted drains that are designed to avoid any increase in flood risk during heavy rainfall.

A more detailed view of the proposed new interchange between the proposed Cambridge South Station, guided busway and Francis Crick Avenue is shown below. The Cambridge South Station public consultation is live from 19th October – 29th November and is available online here: www.networkrail.co.uk/cambridge-south-station





Nine Wells Local Nature Reserve to Granham's Road

The proposed route passes the Nine Wells Local Nature Reserve (LNR) at a distance of 72 metres. During construction there is likely to be some activity closer than this but it would not impact on the reserve itself and there would be a buffer zone of at least 30m within which no construction activities would be permitted.

The reserve is managed under the Cambridge City Council's leadership and a management plan is in place to protect and enhance the reserve. GCP have been liaising with the City Council and other stakeholders with specific interest in the reserve and have identified significant opportunities to help with the delivery of certain elements of the management plan.



The options include:

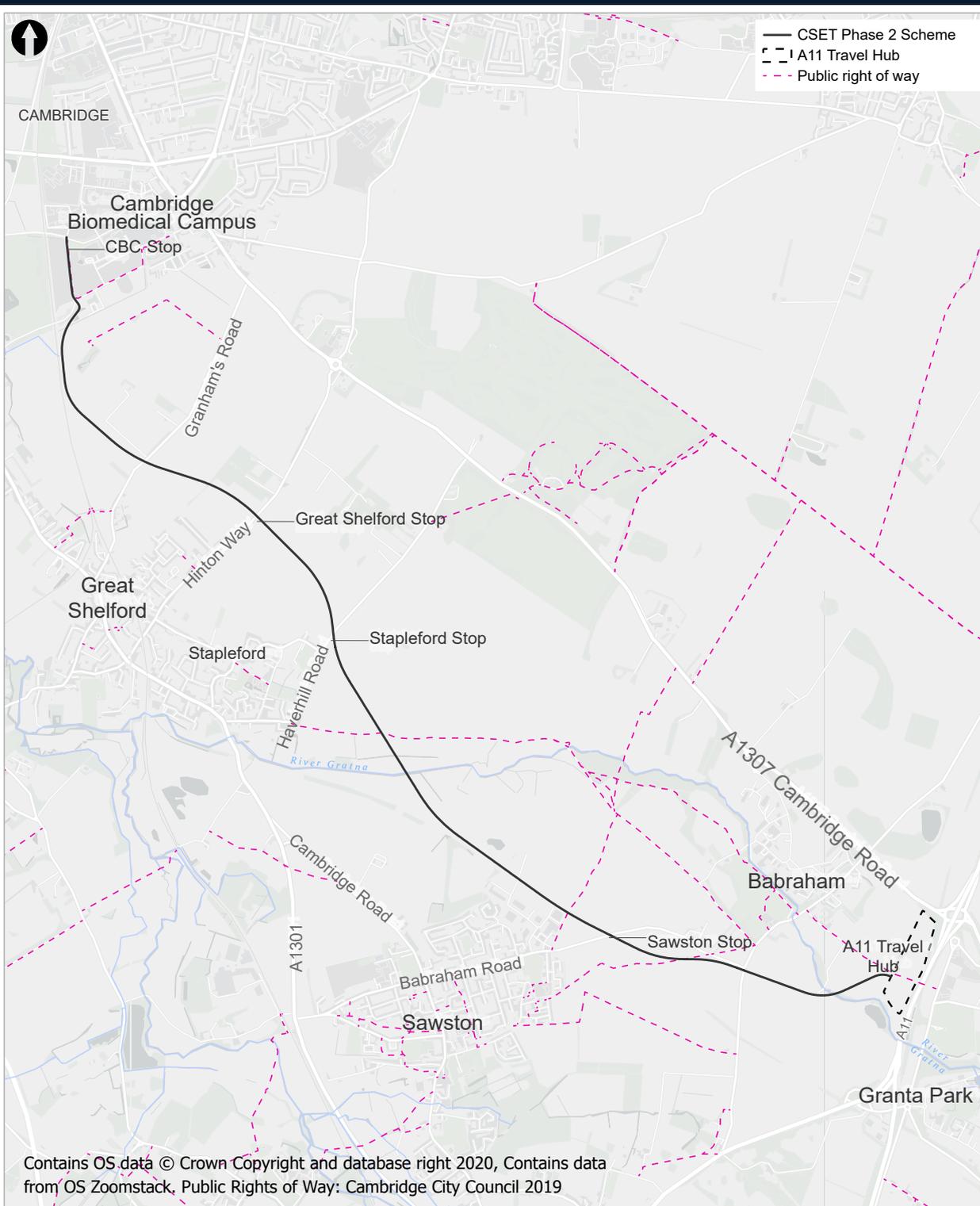
- Providing a buffer zone of woodland planting around the Nine Wells LNR itself.
- Planting up the remaining area between this and the route with mixed grassland.
- Planting up some isolated areas of land between the scheme alignment and the DNA Path with scrub vegetation.
- Locating a potential drainage basin to accept runoff from scheme drainage which would primarily infiltrate to the ground.
- Avoiding any impact on the Hobson's Conduit ditch.
- Maintaining permissive and Public Rights of Way access into the reserve itself.

The route from the Nine Wells area south towards Granham's Road has been refined to take into account environmental constraints and avoiding impacting more land parcels than required in the area. This has resulted in moving the route a bit closer to the railway line and further from the hedge running south eastwards from Nine Wells and Granham's Road. The area between the route and the existing hedge could be planted up to benefit biodiversity with mixed grassland – extending the planting around Nine Wells LNR to Granham's Road.

These options are shown in the figure on the left.



Road crossings, Public Right of Way crossings and stops along the route



Public Right of Way (PRoW) crossings

Where the scheme crosses existing PRoWs there will be a crossing included in the scheme design appropriate to the nature of the existing PRoW (e.g. a pedestrian crossing for a footpath). During construction it is intended to provide temporary arrangements to maintain access along PRoWs. These temporary arrangements will have to be agreed with the County Council and will be bespoke to the specific location affected. The locations of the PRoW affected by the scheme are shown on the figure to the left.



Great Shelford Stop on Hinton Way
Visualisation of design

Location of road crossings

There will be a number of places where the proposed scheme crosses existing public roads. These will be at the following locations.

- At the north and south end of Francis Crick Avenue (Cambridge Biomedical Campus)
- Granham's Road
- Hinton Way
- Haverhill Road
- Sawston Road
- High Street south of Babraham.

Each road crossing will be controlled by traffic signals and give priority to the public transport vehicles. There will also be means to enforce the prevention of unauthorised access to the public transport roadway (e.g. cameras).

Locations of stops

There will be four stops along the route.

- Great Shelford Stop on Hinton Way
- Stapleford Stop on Haverhill Road
- Sawston Stop on Sawston Road
- Francis Crick Avenue near the proposed Cambridge South Station, just before the route joins the existing Busway network.

Users of the A11 Travel Hub will get on or off public transport within the Travel Hub site itself. The arrangements at the Travel Hub are described in a separate document available as part of this consultation.

Facilities at the stops

The three intermediate stops at the villages along the route will have facilities that will include:

- Pick up and drop off for passengers accessing the stop by car;
- Five blue badge holder parking bays;
- Cycle storage racks able to accommodate bicycles of varying sizes;
- Raised platforms to enable level boarding and alighting from public transport vehicles
- Covered passenger waiting areas on each side of the route;
- Information screens for waiting passengers;
- LED lighting designed to minimise light spill away from the stop;
- Planting and landscaping to provide screening of the stop from nearby residential areas.

The stop on Francis Crick Avenue will be limited to raised platforms for passengers, which will have a shelter and real time information screen for waiting passengers. Lighting will be provided appropriate to the setting.



Stapleford Stop on Haverhill Road
Visualisation of design

Hours of operation at each stop

Facilities at the stops will be accessible outside of normal operating hours (e.g. the cycle racks). The actual operating times during which the route would be used will be set by the public transport operating companies licensed to use the route.

Environmental mitigation measures at each stop

Each stop will have planting designed to screen the stop from nearby residential properties, and to reduce the overall impact on the landscape character of the local area. Such planting is likely to take the form of mixed grassland and scattered trees to help screen the view. There will also be hedgerows or tree belts in some areas where more dense screening is required – these locations are indicated in the images above.

Where there is a proven requirement to reduce noise from the stops then an acoustic barrier will be provided, in the form of an appropriate fence on the boundary most impacted by potential noise.

On the approaches of the public transport route to the stop the use of low bunds (about 1m in height) or shallow cuttings will be incorporated into the design to reduce the impact of the road noise from public transport vehicles near residential areas.

The stops also provide an opportunity for people to enter the Active Travel path, suitable for cycling, walking and horse riding along the route, or leave this path to join other paths / road networks.



Sawston Stop on Sawston Road
Visualisation of design



What will the crossings over the River Granta look like?

There will be two crossings over the River Granta along the route. At both crossings and between the crossings the river itself is designated as a County Wildlife Site protected for the value of the biodiversity along the river channel. The land within the flood plain contributes to the overall value of the river and is environmentally valuable.

To minimise the impact and land take of the approaches to each bridge, the design of each bridge is intended to have the bridge deck on piers, rather than on an embankment. This will:

- Reduce the loss of flood storage capacity in the flood plain
- Reduce the footprint of the bridge crossing

- Keep the crossing away from any direct impact on the River Granta itself

The northern crossing is between Stapleford and Sawston where the land is relatively open to the north and the channel is quite deeply incised below surrounding ground level. In this area the flood plain mapped by the Environment Agency is about 235m wide. The bridge will need to be 4.5metres high above the ground to ensure the bridge deck is kept out of any flood waters, taking into account the potential impact of climate change on flood levels in future.

Opportunities to align the bridge crossing to minimise impacts on ecological receptors have been balanced against the need to minimise the impact of any structure on the flood plain.

The Active Travel path suitable for walking, cycling and horse riding will also cross the river on the same bridge structure. There will be parapets on the bridge to ensure the safety of all users who cross the bridge.

An indicative view of the bridge in this location is shown below.



River Granta Bridge near Stapleford
Visualisation of design



The southern crossing is located south of Babraham in an area that has restricted views due to the wooded nature of the landscape and the fact that the river is in a small valley. The rise of the bridge above surrounding ground will be limited by the fact that the river is within this low lying feature in the landscape. The bridge will be of a similar design to the northern crossing described previously, with piers as the foundations to reduce the impact on the flood plain. The bridge will need to be high enough for farm vehicles to pass below, which will ensure the bridge is kept out of the potential flood waters during extreme weather. The Active Travel path will also cross the river in the same location and there will be similar parapets to protect the safety of all users who cross the bridge.

An indicative view of the bridge is shown on the right.



River Granta crossing near Babraham
Visualisation of design



Hobson's Conduit crossing
Visualisation of design

What will the bridge over Hobson's Conduit consist of?

There will be a small bridge structure constructed to cross Hobson's Conduit. This will be kept as low as possible to minimise visual intrusion in this open area, but the base of the bridge design will be high enough that any flood flow will not be affected. Available information indicates that even in extreme events floods are unlikely to rise above the ditch banks which forms the conduit. This is not unexpected as the flow in the conduit is fed by spring flows from the Nine Wells LNR, which are not directly influenced by short term heavy rainfall that causes surface water flooding in the area.

The bridge will be designed so the footings of the approaches to the bridge do not have any direct impact on the conduit itself, which is an important habitat for protected species in the area.



The Active Travel Path

There will be an active travel path running along most of the CSET scheme, which will be suitable for use by pedestrians, cyclists and equestrians.

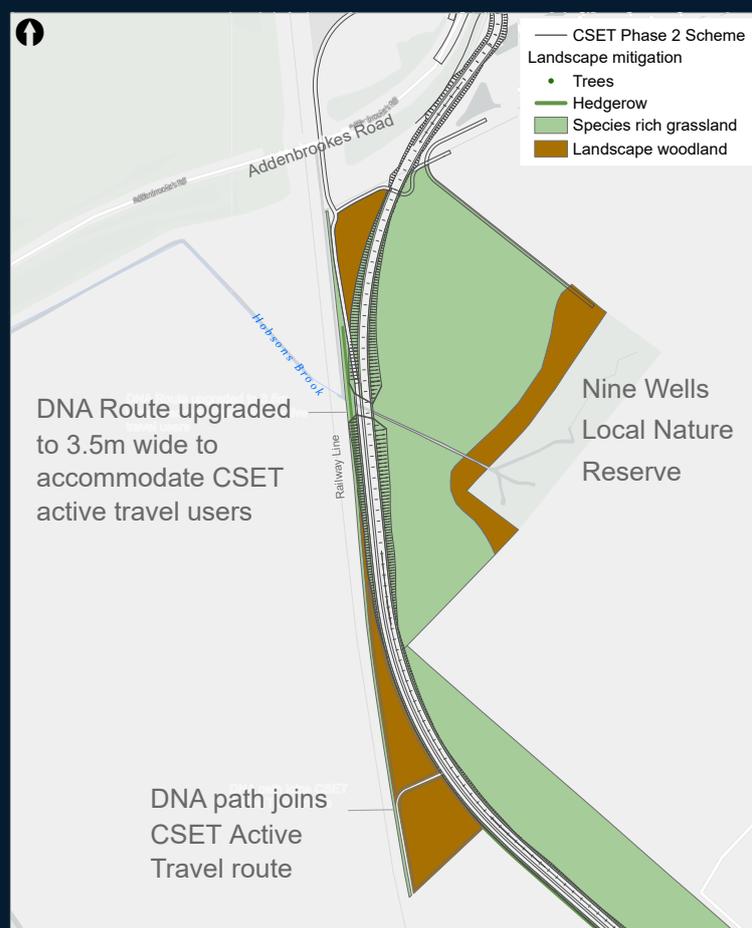


This path will be designed in accordance with the Policy Framework for Non Motorised User routes that GCP have developed in consultation with the Non Motorised User Working Group for GCP schemes. The key design principles set out in this framework are summarised below.

- The route should be inclusive and accessible for all users and will take account of all types of users and be suitable for all equipment types (such as cargo cycles and mobility scooters).
- The route needs to be appropriate to the needs of different groups that may have different priorities or requirements (e.g. such as commuter/utility cyclists or those who are using the route for a leisure trip).
- The route is future-proofed so that it can accommodate the expected number of users now and in the future.
- To ensure that the route will be safe for all types of users, that users will feel safe and the route will be useable in all weather conditions.
- The design must not be detrimental to one user group or place them in more danger.
- The route should form part of a wider network and be well-connected.

The Active Travel path on this scheme will connect the A11 Travel Hub to Francis Crick Avenue. It will also connect to Granham's Road, Hinton Way, Haverhill Road, Sawston Road and the High Street south of Babraham. There are a number of Public Rights of Way (PRoW) which the Active Travel path will intersect, enabling users to access a wider network.

The path will be alongside the public transport route – but separated by a minimum of 2m distance. The path will have an all weather surface and will be a minimum of 3m wide. It will not segregate users except where the demand is high, mainly north of Great Shelford.

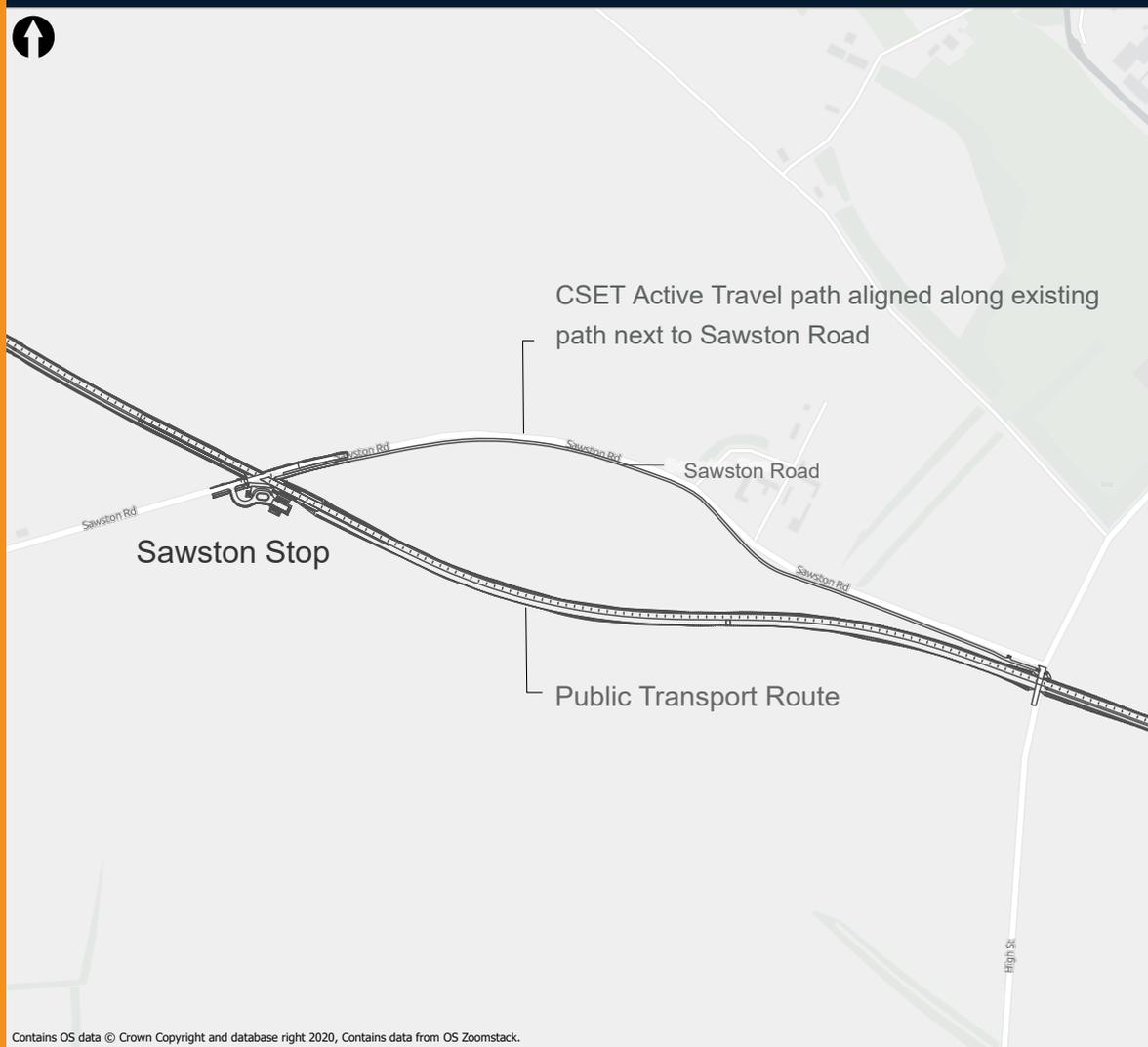


The only other location where the path will deviate from being along the public transport roadway is between Sawston and the High Street south of Babraham. Along this stretch the path will join the existing path that runs along Sawston Road. This is shown in the map below.

The path will not be lit except in areas where lighting is required to ensure the safety of users (eg. at road crossings). It is not proposed to fence the Active Travel path off from adjoining land unless there

are specific local requirements identified. It is proposed that a hedge be created along much of the route. This could be on each side of the route in some places, creating a 'corridor' feel.

There is an opportunity for facilities to be created for users to stop and rest (for example to have a picnic) if this is something stakeholders wish to have made available.



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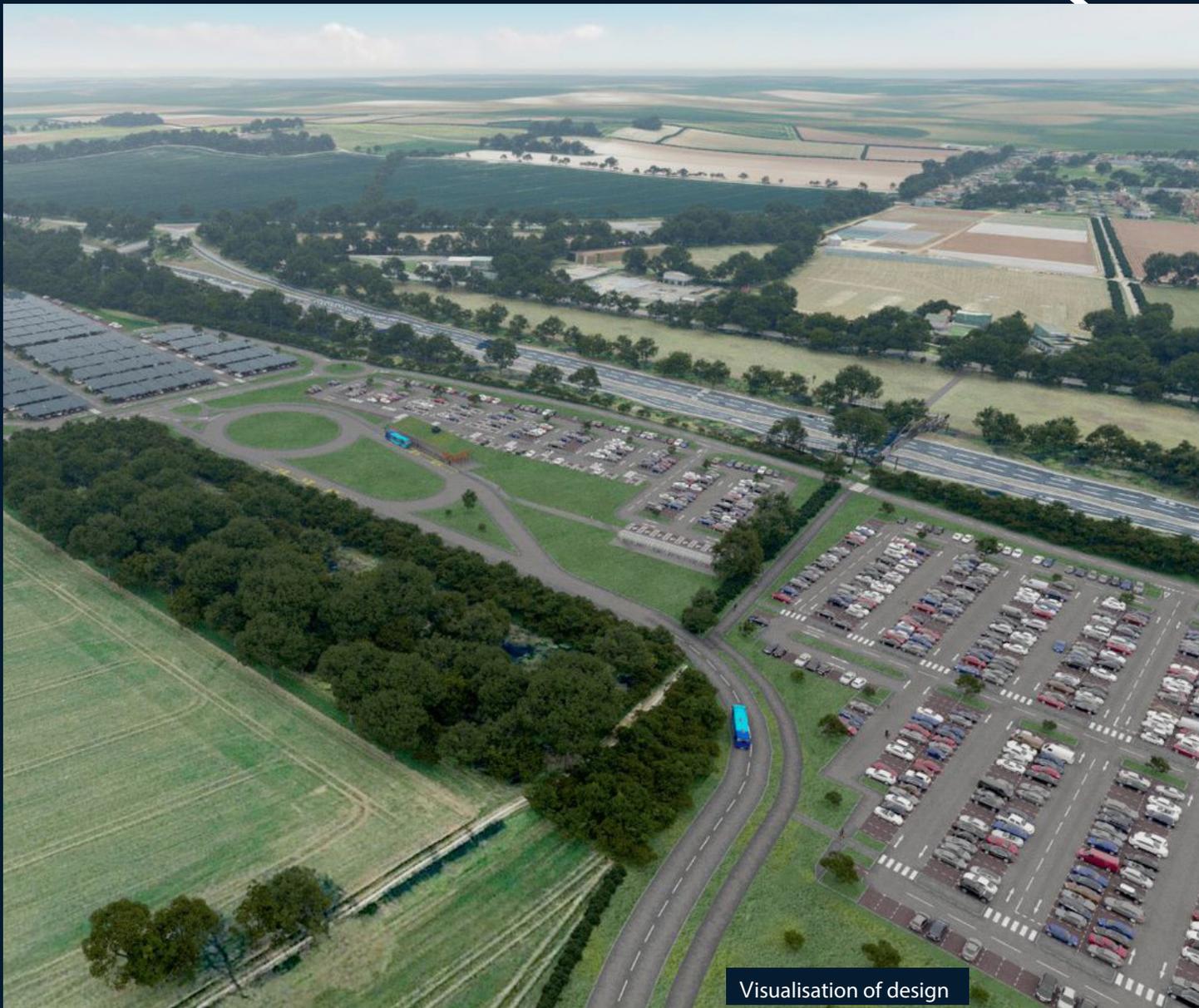


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A11 Travel Hub

The A11 Travel Hub will be constructed alongside the A11 between the River Granta and the A1307, covering an area of approximately 20ha. This area of land is currently used for agricultural purposes.

A new roundabout junction will be constructed on the A1307 to allow users of the Travel Hub to safely enter and leave the new site. Public transport vehicles will be able to leave / join the segregated route at this point and re-enter / leave the public road network as well.

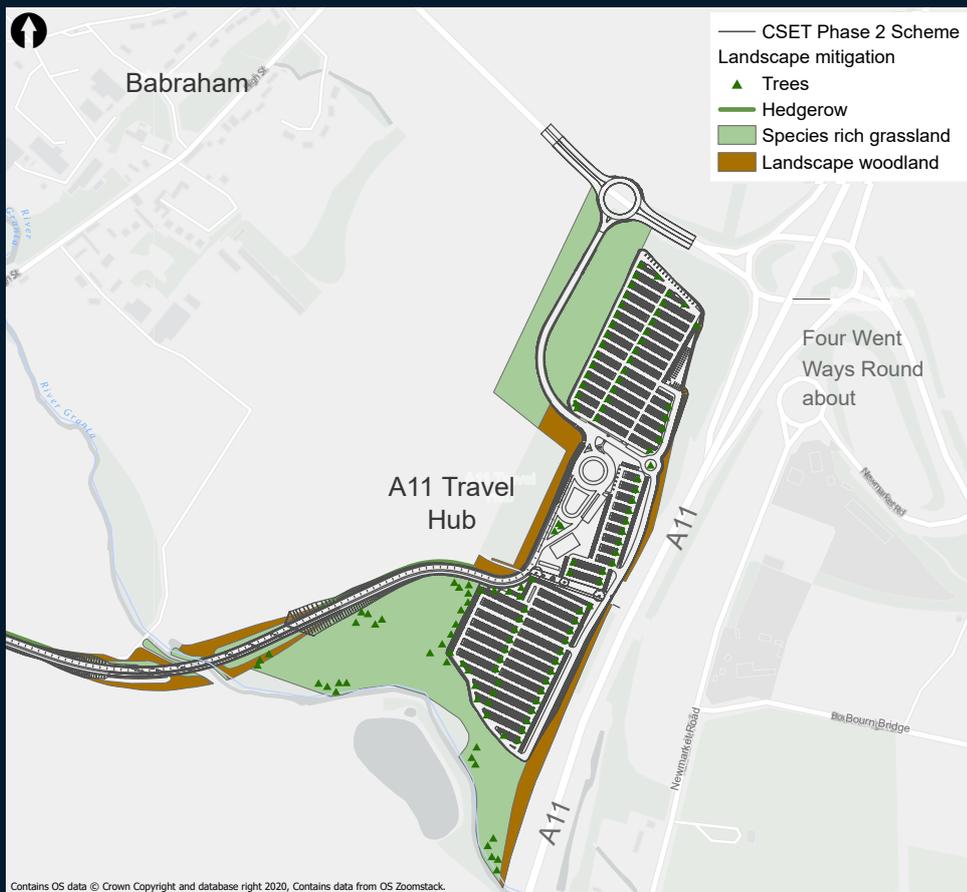


Visualisation of design

Facilities at the Travel Hub



- Up to 2000 car parking spaces, 5% of which will be disabled spaces, and 5% of which will have electric charging points. Passive provision will be included for all spaces to have electric charging points in the future.
- A small building for passenger information and washroom facilities.
- 350+ cycle parking spaces which will include a range of cycle storage options, including secure cycle boxes and space for oversized cycles. Cycle parking facilities will be located close to high footfall areas to reduce risks of theft of bicycles.



Solar panels will cover some of the car parking spaces within the Travel Hub. The solar panels will help to provide energy to run the Travel Hub site.

To reduce the visual impact of the Travel Hub on the surrounding area, the Travel Hub will be screened with landscaped planting around the perimeter of the site. There is also landscaping proposed throughout the Travel Hub to break up the parking area and reduce the overall impact on landscape setting.

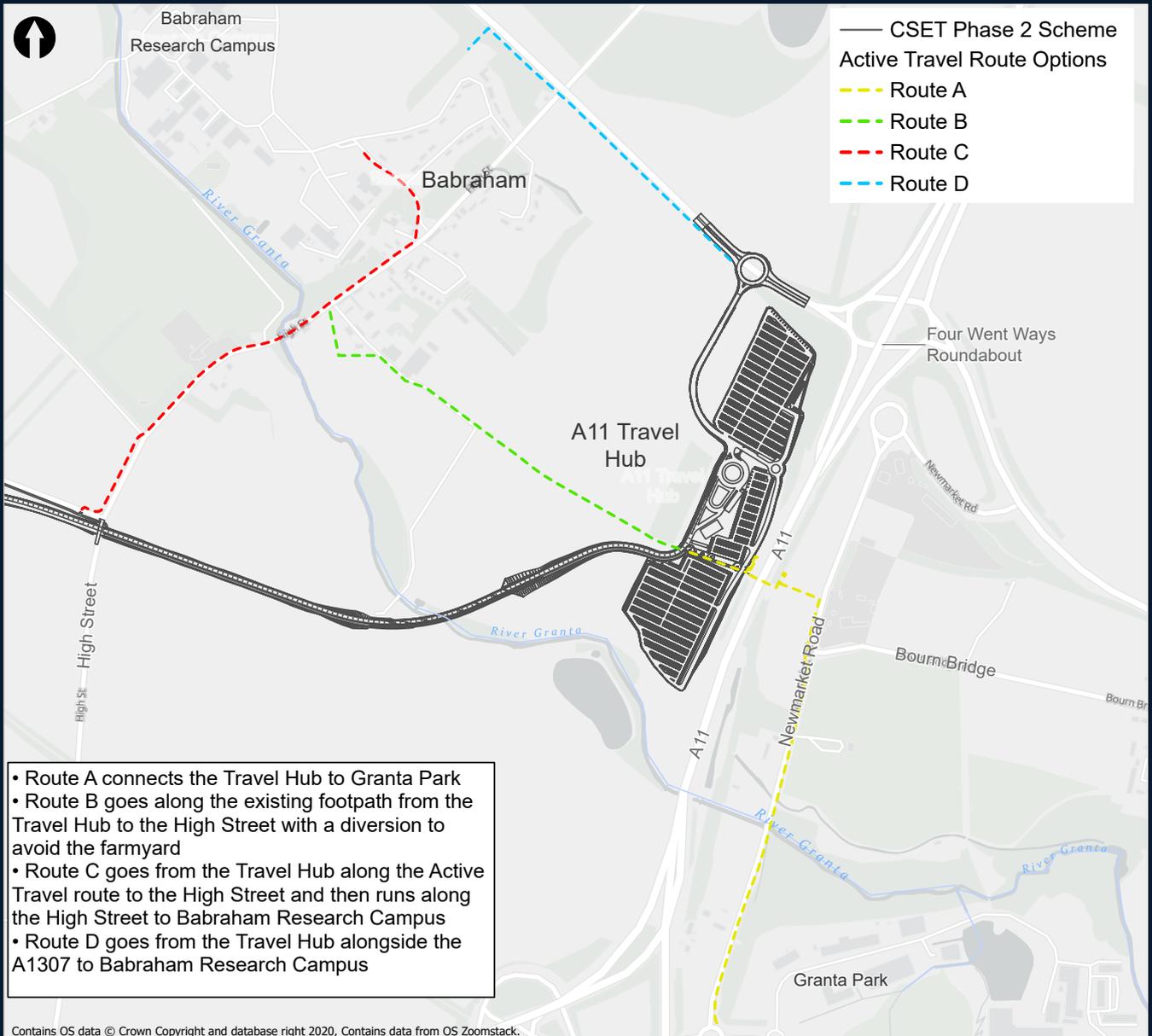
All parking areas, access roads and user facilities will be lit with suitable LED lighting columns designed to minimise impacts on wildlife and the night sky generally.

There is a public footpath (PRoW 12/4) which traverses the Travel Hub site and crosses the A11 across an existing footbridge. Improving the access for cyclists and pedestrians to the footbridge on either side of the A11 will form part of the CSET Scheme.

Equestrian access to cross the A11 is being considered via a new path alongside the A11 down to the River Granta passing under the A11 and then back alongside the A11 to the foot and cycle bridge.

We will improve access to Babraham Research Campus and Granta Park by providing an active travel path, suitable for walking, cycling and horse riding, from the Travel Hub to each site as part of the CSET Scheme. The proposed routes are shown in the figure below.

The southern part of the Travel Hub site is in the flood plain of the River Granta. In this area suitable habitat creation will be included in the design, but there will be no car parking or other infrastructure that is not flood resilient in this area.





What will a linear park comprise?

The concept of a linear park has many meanings – GCP’s vision of a linear park along the CSET route is one which connects different areas of interest by the infrastructure which the scheme provides. The infrastructure will enable people to move between these areas of interest but will also be designed to fit into and preserve the landscape character as much as it can. It will also provide some facilities in areas to allow people to rest and relax in the countryside.

We are committed to working with communities to produce a scheme that provides more than public transport benefits to people needing to get in and out of Cambridge. One way of achieving this is by the provision of additional means for anyone to gain access to the countryside and other places which people may wish to visit by way of the Active Travel Path we will provide. The Active Travel Path will be suitable for use by cycling, walking and horse riding.

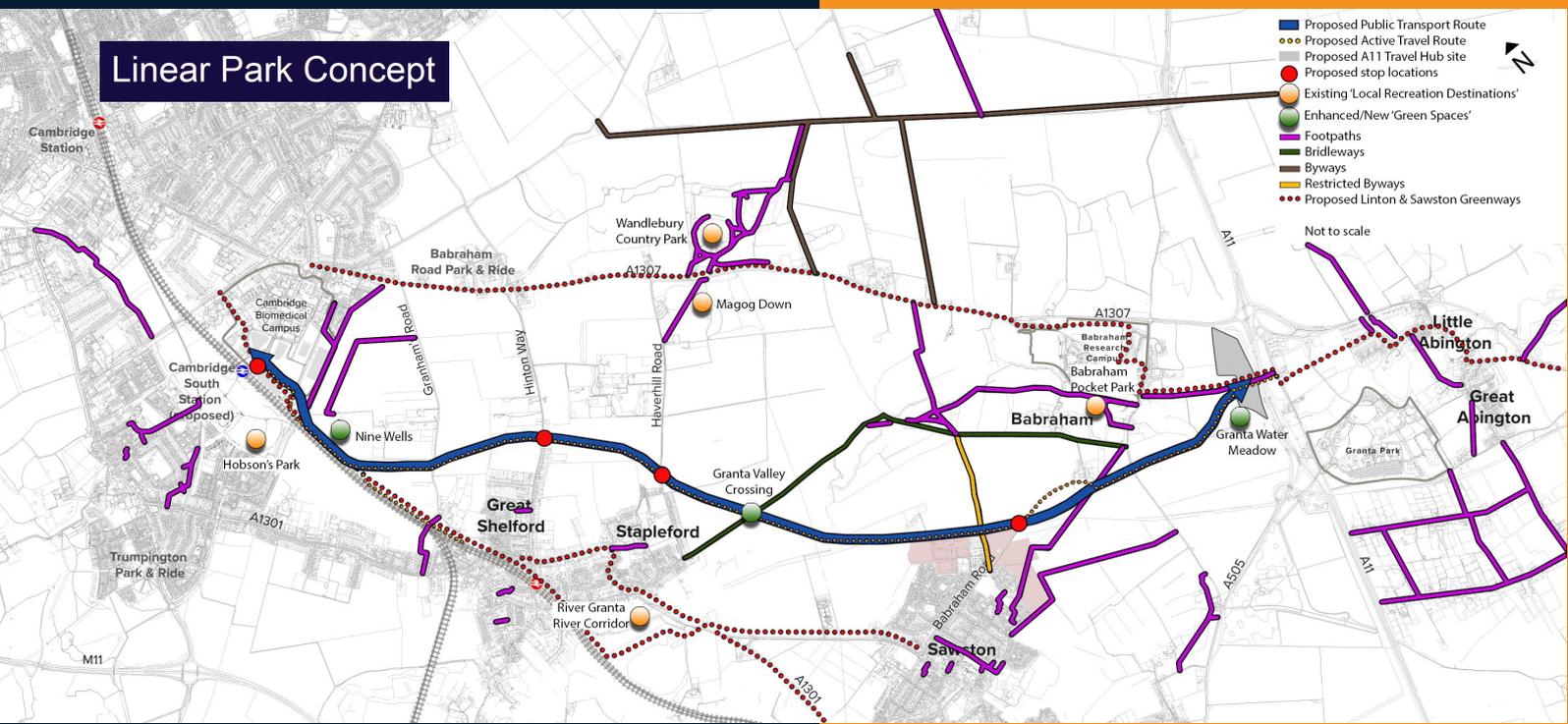
The route could become part of a wider green infrastructure network that is made up the greenways being created in the area, or routes and areas identified for conservation and recreation in local neighbourhood plans or any green infrastructure

strategies implemented under future local plans. Realising such a wider ambition will take time, and will not be delivered by our scheme alone. We see our scheme as part of a range of activities taking place over time.

There are several key areas along the route and in the near vicinity which form obvious focal points to protect and improve and to provide access for people to visit. These extend from within the city boundary out to the A11 and include the new Hobson’s Park, the Nine Wells Local Nature Reserve, the Magog Downs and Wandlebury area and the River Granta Valley. Some of these have reasonably good access at present and other areas have less suitable access for the range of people who may want to visit them.

We will work with interested stakeholders to develop the scheme in a way that minimises the physical impact of the scheme itself on the environment, but will also look at ways to maximise opportunities for people to visit areas they want.

This includes seeking locations to put some park benches and tables in locations where people using the Active Travel Path may wish to rest and take in



their surroundings (eg. near the River Granta near Stapleford). We will put out information boards at appropriate locations to explain the heritage of the area and any particularly environmentally sensitive items of interest.

We will also improve connectivity in the area by providing a continuous Active Travel Path that connects with a number of existing footpaths, bridleways and permissive paths. We will consider how to improve some of these existing paths such as the footpath up Haverhill Road towards Magog Down. We will work to further enhance Active Travel opportunities by working with our CSET Phase 1 and Greenways colleagues to maximise connectivity –if there are gaps in Active Travel networks which communities want filling, we will endeavour to ensure these are included in appropriate work programmes.

Our landscape specialists and ecologists are working together to identify appropriate planting along the route. The objective of our planting design will be to screen the route where it is closest to residential properties and to break up the linear nature of the scheme where it is running across open countryside (particularly where there are views from a distance of the route such as from Magog Down).

This will be achieved by planting hedges and trees along the route in a manner that replicates and reinforces the field pattern which already exists in the area.

In some locations we will acquire land which will be included in the scheme and which will be planted with the specific objectives of improving the biodiversity in that area. The key areas we will focus on are around Nine Wells Local Nature Reserve, the River Granta near Stapleford and along the River Granta adjacent to the A11 Transport Hub. Information notes on these particular areas are available as part of this consultation and give some indication of the planting proposals in these areas.

As part of this consultation for the environmental assessment we are seeking your views on this vision of a linear park, and what other suggestions you may have for us to consider.

You are invited to provide feedback on the scheme proposals in the questionnaire in the 'Have your say' section of this consultation.



Construction

We understand that people will want to know the likely impact that constructing the scheme will have on their daily life, particularly in relation to potential traffic impacts and other effects on local villages.

Construction will be undertaken in line with the Considerate Contractors Code of Practice which sets out five core principles to deliver excellence by:

- Keeping work sites managed well and looking professional,
- Respecting local communities and those who work the land,
- Protecting the environment,
- Making sure everyone is safe, and
- Respecting their own work forces.

We have appointed specialists to advise on how the scheme would be constructed and they have already gained a good understanding of some of the local constraints first hand.

A construction management plan will be drawn up once the scheme proposals are finalised, together with a construction phase plan, detailing how the works will be undertaken. This will be provided for stakeholder review and comment as part of the final Environmental Statement. At the present time it is proposed construction traffic will access the scheme either from the A1307 (avoiding traffic running through Great Shelford, Stapleford, Sawston and Babraham) or via a temporary haul road constructed along the line of the route.

The construction specialists are considering where construction compounds may be required and what the best construction programme is to minimise the length of time construction will take. This will have to take into account existing farming activities and other community needs during the construction period. It is highly likely the main construction compound will be in the location of the proposed A11 Travel Hub. It is also likely that a satellite construction compound will be required in the northern part of the route as well.

Community and environmental impacts will be taken fully into account at all stages of the development, planning and decision-making process.

If consent for the proposed scheme is granted by the Secretary of State then construction of the main works would be expected to commence in early 2023.



You are invited to provide feedback on the scheme proposals in the questionnaire in the 'Have your say' section of this consultation.



Land and Property

The proposed scheme alignment has been selected to meet a range of different criteria, including to avoid any direct impact on buildings and to minimise land take without compromising scheme design. Account has been taken of the potential for severance of land parcels and how current owner/occupiers would be able to access and use their land in future. Consideration has also been given to the physical impact of the scheme and how it could be reduced through appropriate planting or design.

The overall route length is about 9kms long and crosses land held by 15 landowners.

The A11 Travel Hub will occupy about 20ha (including land for landscaping) and the three stops along the route will occupy between 0.4ha and 0.8ha (depending on the land take and landscaping provided at each stop).

The area of land required for the scheme will be finalised when all the final land strategy for the scheme is completed, which will be based on the outcome of discussions with affected parties and the feedback from this consultation process.

The scheme will result in changes to the existing agricultural land use within the area of the scheme, with some parcels of land planted with new habitat and with the provision of community facilities as described in the Linear Park Concept Note included in the consultation pack.

The route will not require the acquisition of any buildings, and we are not proposing any demolition of property along the route. Where the route is in a built-up environment we are working with the landowners and other affected parties to design the route to meet stakeholder needs. This is described in the information provided in this consultation on the Francis Crick Avenue section of the route.

The remainder of the scheme is in open countryside and crosses land which is predominantly used for agricultural purposes. A number of public highways are crossed, along with several permissive and public rights of way. None of these will be permanently closed or significantly diverted, although there will be a need for some temporary closures during construction. There will be traffic lights installed to control traffic where the scheme crosses public highways.

All landowners who are directly affected by the scheme have already been contacted and ongoing discussion is taking place about how the scheme would affect their affairs. We are working with these stakeholders to seek to reduce the impacts of the scheme on their land and activities.

As part of this consultation on the entire scheme we have included a short section where the alignment is shown to have changed from the outline scheme approved for development by the GCP Executive Board in June 2020. This section is between Sawston Road and the A11 Travel Hub location and is described in more depth on the note about this route section. This proposed refinement to the route came about to reduce the impacts on land severance, reduce impacts on landscape character in the area. The refinement to the route in this area straightens out the route and is slightly shorter by about 50m. It reduces the severance of fields by being aligned alongside existing field boundaries and field tracks and reduces the impact on landscape character as it does not cross open fields as much as the original alignment. However it is closer to houses on Sawston Road.

A final decision on the overall scheme alignment will take account of feedback from this consultation.