



# HOO

## New Routes to Good Growth

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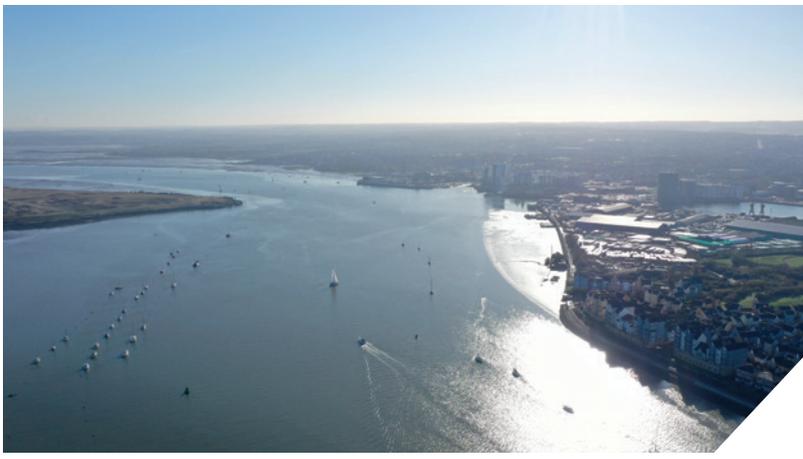
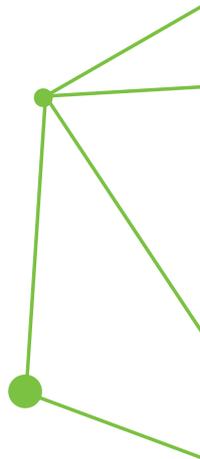
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## 1 INTRODUCTION

The information here describes our proposals for infrastructure improvements and environmental management measures on the Hoo Peninsula. We are consulting on these proposals to obtain feedback from the local community and other stakeholders. We will take this feedback into account before we finalise the infrastructure proposals and submit applications for planning permission and other consents for the infrastructure proposals.

We secured £170m funding from government for the proposals outlined. They comprise highway improvements on the Hoo Peninsula, a new railway station south of Sharnal Street and the reintroduction of a passenger rail service, and environmental management measures.

These proposals relate solely to infrastructure and environmental management. Any decisions on where to locate new housing and other development will be taken in the Local Plan process. We are currently preparing a new Local Plan which will set out a vision for future development in Medway up to 2037.

Decisions about any future growth on the Hoo Peninsula will be taken as part of the Local Plan process. The award of government funding and the preparation of planning and applications for other consents help to show that the infrastructure proposals described in this booklet can be delivered, but this does not pre-determine decisions about future growth.

A draft of the new Local Plan will be published in spring/summer 2021. We welcome your comments on the infrastructure proposals so that we can take this feedback into account before we prepare applications for planning permission and other consents for infrastructure and environmental management proposals.

## Overview of the New Routes to Good Growth project

During 2020, we had confirmation from government that our Housing Infrastructure Fund application had been successful and that £170m has been earmarked for the building of new roads (see Highways section 3), the provision of a new train station and passenger service (see Rail section 4) and the delivery of environmental mitigation and enhancements (see SEMS section 5).

This funding package supports the delivery of the essential infrastructure proposals which will enable emerging proposals for 10,600 homes to come forward. Decisions as to whether it is appropriate to allocate land for the development of new homes 10,600 or any other number of homes or other development will be made in the Local Plan process, and the decision to award HIF funding does not pre-determine the outcome of the planning process.

The HIF proposals are intended to address the challenge of getting on and off the peninsula by providing three ways on and three ways off of the peninsula (the new road linking the A289 to A228, the existing but improved Four Elms Hill junction and the new rail passenger service). This is in addition to the improvements being planned for Bell's Lane, Ropers Lane and Main Road junctions.

These investments to improve accessibility to and from the peninsula are planned to be in place by 2024. The proposed environmental improvements will create new open spaces that will support wildlife, landscape features and, where appropriate, new footpaths and cycleways. These will complement the existing footpath network and support walking and cycling around the peninsula for both existing and new residents.

**new open spaces that will support wildlife, landscape features and... new footpaths and cycleways**

We are preparing a new Local Plan and will be publishing a draft setting out proposed development sites and policies in spring 2021. The plan needs to take account of the needs of Medway's growing population for homes, jobs and services, and address the high housing targets set by government. We are using a number of studies to identify the best options for how Medway can grow in a sustainable way, balancing the needs of communities, the environment and the economy.

We have considered a wide range of options for growth around Medway. Much of the focus remains on expanding on our urban regeneration successes in waterfront and town centre sites. The Hoo Peninsula also has potential for large scale and sustainable growth, if the right measures are put in place to protect the environment and improve infrastructure capacity, particularly transport.

**Investments to improve accessibility to and from the peninsula will be in place by March 2024**

The HIF programme provides the means to get infrastructure, strategic environmental management and other measures in place. This provides a basis upon which to consider whether there is or planned to be adequate infrastructure to enable any new housing and employment on the Hoo Peninsula to be delivered over the coming decades as part of any planned growth in Medway.

Medway's Local Plan will be examined by an independent planning inspector, appointed by the government. The inspector will consider whether the plan is sound including whether proposals are deliverable over the plan period. The inspector is likely to consider whether infrastructure will be in place to support proposed development. The delivery of the HIF programme over the next few years is likely to be relevant when considering that issue.

The Local Plan will also specify the need and land for wider services and infrastructure, such as new schools, health services and community, leisure, and sports facilities required in connection with any proposals for housing growth on the Hoo Peninsula. These will be included in proposals for growth around Hoo. We will publish the draft plan with supporting technical documents, including transport and environmental assessments, for comments in spring 2021. You will have a chance to make representations on the Local Plan at that point, and any representations you make on the Local Plan will be sent to the planning inspector to review alongside the council's draft plan.

**Illustrative overview map:**



The information covers each of the proposed interventions and gives an overview of:

- The alignment and function of the new road on to the peninsula
- The proposed improvements to existing roads and junctions
- The location of the new rail station, rail passing places and changes to level crossings
- Our environmental management aspirations

The information is provided to enable you to provide feedback via the online questionnaire and to share your thoughts on this proposed new infrastructure. We strongly suggest that you read this information before completing the questionnaire. The simplest and quickest way to provide feedback to us is via the online questionnaire.

However, if you have problems accessing the online questionnaire then please contact the HIF team and we can send you a hard copy of the information and the questionnaire.

Email at: [futurehoo@medway.gov.uk](mailto:futurehoo@medway.gov.uk)





## 2 PROCESS AND TIMELINES

Throughout the development of the new Local Plan for Medway, it has been recognised that development on the Hoo Peninsula would require significant investment in infrastructure. This includes improvements to the existing highways and rail network, and strategic environmental management measures would be needed to help avoid impacts to the sensitive ecological sites on the peninsula.

These improvements would help ensure that any proposals that may be included in the Local Plan for development on the peninsula are sustainable and acceptable in planning terms.

Taking measures to enhance infrastructure provision will enable development options to be considered, including in the Local Plan process. Consideration of the different infrastructure and associated environmental measures is to be undertaken at this stage. The outcome of such consideration can, if relevant to matters in issue, be taken into account in the Local Plan process. It is in that context that the funding received by the council from Homes England to deliver these works requires that the infrastructure is in place by spring 2024.

We are therefore developing the proposals for infrastructure improvements alongside the ongoing preparation of the Local Plan.

Before these infrastructure proposals can be delivered, we will need to obtain planning permissions and other consents for the works. These include:

Infrastructure	Consents required
Highways	Planning permission; and, where the proposed works involve consequential changes to side roads, public rights of way and private means of access; a Side Roads Order (SRO) under the Highways Act 1980 made by the council.
Rail	A Transport and Works Act Order (TWAO) made by the Secretary of State under the Transport and Works Act 1992 - this is an all encompassing consent that will roll up all the requirements of these works into one consent; including land powers (see below).
SEMS	Planning permission

We will also need to access and acquire land that is necessary for the proposed infrastructure. The council will be negotiating with all land owners that are affected by the proposals to try and reach voluntary agreement. However, where this is not possible, the council will seek to use compulsory purchase powers. Such powers will only be used as a last resort where it has not been possible to reach agreement with the relevant landowners.

We propose to submit applications for planning permission in summer 2021.

We are therefore consulting at this early stage to enable your feedback to inform the applications.

The applications will also be informed by the environmental impact assessments, transport assessments and habitats regulations assessments that will be undertaken as discussed in section 6.

The timeline for delivery of these projects, alongside the Local Plan, is envisaged to be as follows:

<b>Spring 2021</b>	Consultation on publication version of new Local Plan
<b>Summer 2021</b>	Submission of consent applications
<b>Winter 2021/2022</b>	Submission of Local Plan
<b>Winter/spring 2022</b>	Inquiries for TWAO, SRO and CPO
<b>Summer 2022</b>	Consent decisions made, works to start as soon as possible thereafter
<b>End of 2022</b>	Local Plan adopted
<b>Spring 2024</b>	Infrastructure works complete



## 3 OUR PROPOSALS: HIGHWAYS

### Overview of all phases

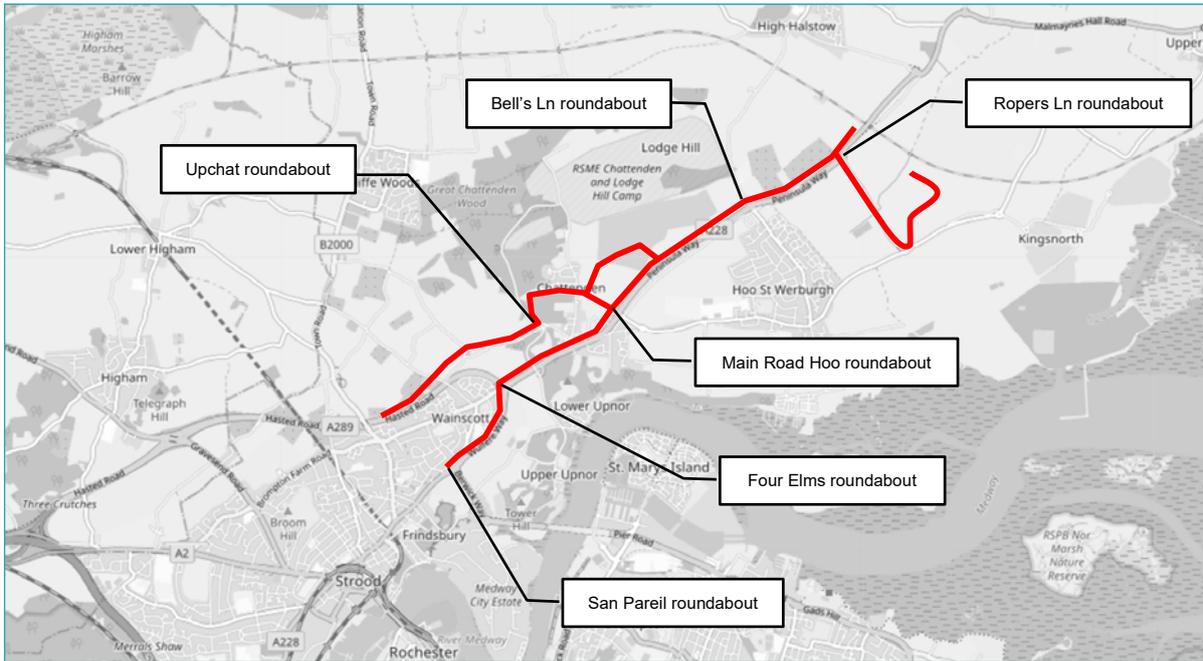
The highways proposals will accommodate future traffic growth associated with any future housing proposals for the Hoo Peninsula.

They involve improvements to existing infrastructure, as well as the provision of new infrastructure including new slip roads, junctions and interchanges on the A228 and A229, a relief road via Woodfield Way i.e. a second road access to the peninsula, and wider highway improvements.

These changes will help to maximise the use of existing infrastructure whilst also creating additional capacity to facilitate future Hoo growth.

The improvements are split into six geographic phases and are described figure 1.

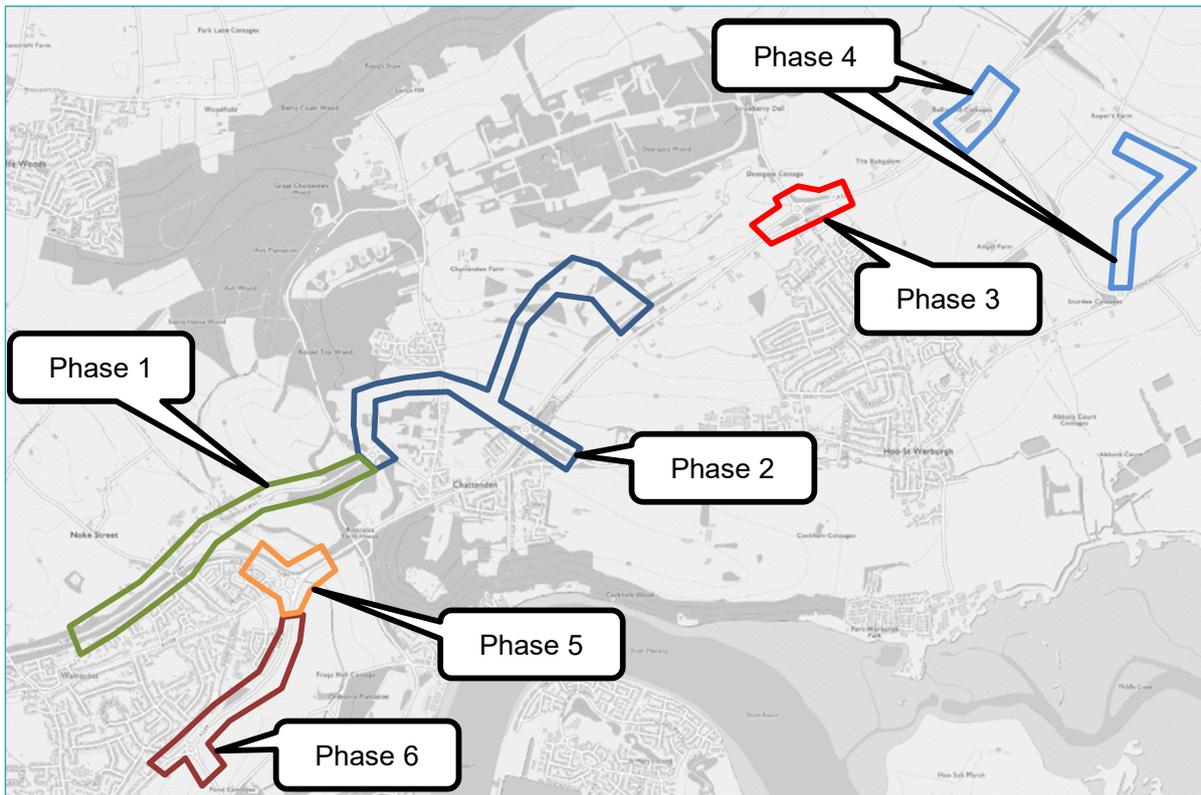




**Figure 1: provides an overview of the existing highway infrastructure provision**

The network comprises several key strategic A roads serving Strood and the Hoo Peninsula, namely the A289 and the A228.

The extent of the proposed improvements is indicated in red.



**Figure 2: location of the phases of the highways improvement**

Figure 2 indicates the improvements split into six individual phases.

**Phase 1** (in green) includes a new junction controlled by traffic signals to link the A289 with Islingham Farm Road, plus improvements to Higham Road and Woodfield Way.

**Phase 2** (in dark blue) includes a new relief road, connecting Upchat roundabout to the A228. A new spur link road and roundabout will also be introduced to ease congestion.

**Phase 3** (in red) entails improvements to the existing Bell's Lane roundabout to accommodate traffic growth.

**Phase 4** (in light blue) shows the measures to be implemented at Ropers Lane roundabout to accommodate the new rail station.

**Phase 5** (in orange) consists of improvements to Four Elms roundabout.

**Phase 6** (in brown) involves upgrading the existing A289 Wulfere Way and Sans Pareil roundabout to ease network congestion.

The description of the works in the following sections includes initial suggestions for how provision will be made for walkers, cyclists and horse riders. We are undertaking a walking, cycling and horse-riding assessment and review (WCHAR) for all phases of the highways works. This will inform any further design requirements relating to the provision of walking, cycling and horse-riding facilities.

Interested groups will be consulted on the WCHAR process, including Medway Local Access Forum and others.

Phase 1 – New Relief Road – Improvements to existing Highways including providing new slip roads to Higham Road junction, new overbridge, improvements to Islingham Farm Road and Woodfield Way

## The proposed works

### A289 junction

A new junction on the A289 Hasted Road is proposed at the Higham Road intersection with new slip roads from the current Hasted Road bridge down to the A289.

### Higham Road

The junction of Higham Road, traffic from the A289 and Islingham Farm Road will require traffic signals and give priority for through traffic passing to and from the A289 to/from Islingham Farm Road.

### Islingham Farm Road

There will be an upgrade of the existing single lane Islingham Farm Road, which will be widened to two lanes. There will also be provision of a new footway and cycle path, and the creation of a new link to Woodfield Way. The works also involve embankment strengthening, utilities diversions and changes to fencing at the adjacent MOD Training Centre.

### Woodfield Way

Improvements to Woodfield Way will make the road suitable for increased public use.

The works comprise improvements to the surface of the existing carriageway and footways, providing new crossings, and improving fencing. No works are proposed that will directly impact upon the adjacent Chattenden Woods and Lodge Hill SSSI. The works will take place within the existing hard surfaces.

### Walking and cycling

Shared footways will be provided on Islingham Farm Road and Woodfield Way.

Users of the public rights of way (RS119 – Granary Cottage to Hoo Road) at Woodfield Way will be accommodated as part of the road improvements to maintain the route. Other public rights of way across the road will not be affected by the works.



**Figure 3: Phase 1 - Modifications to A289 including providing new slip roads to Higham Road junction, new overbridge, improvements to Islingham Farm Road and Woodfield Way**

Figure 3 shows the key improvements proposed as part of Phase 1.

Views A and B illustrate the new junction at Higham Road overbridge.



Figure 4: Phase 2 - View A shows the widening of Islingham Farm Road, realigned with Woodfield Way to provide improved traffic flow.

View B shows the improvements along the existing Woodfield Way including the provision of several crossing points, and an adjacent shared footway cycleway facility.

Phase 2 – New Relief Road - Proposed relief road from Upchat Roundabout to Main Road Hoo Roundabout. A228/Main Road Roundabout junction modification. New A228 roundabout and associated spur link road.

### **The proposed works**

#### **Upchat Roundabout / relief road to Main Road Hoo Roundabout**

At the northern end of Woodfield Way, the road connects to the existing Upchat Roundabout. Local improvements to Upchat Roundabout are proposed including footway improvements and new street lighting, drainage and signing.

A new relief road is proposed to be constructed in the direction north and then to the east, before intersecting with Chattenden Lane. It then continues to join the A228 Main Road Hoo Roundabout adjacent to the site currently being developed by Abbey Developments.

This alignment takes account of development sites that have been proposed in the development of the Local Plan to date, and creates opportunities for enhanced cycle and footway links with those development sites if they were to be allocated in the Local Plan and brought forward. Landscaping and screening are being considered to mitigate ecological and visual impacts to any new developments.

At the intersection with the existing Chattenden Lane, a junction controlled by traffic signals is proposed to allow safe controlled crossing points.

#### **Main Road Hoo Roundabout**

To support the new relief road, a number of changes are required at the existing A228/Main Road Hoo Roundabout:

- signals will be introduced;
- a dedicated slip road to the A228 northbound will be provided;
- the existing access to the Abbey Developments development site currently under construction will be relocated;
- the single carriageway road link between the Main Road Hoo Roundabout and the Main Road Chattenden Roundabout will be upgraded to two lanes in each direction with a new left turn slip lane to the A228 southbound; and
- Ratcliffe Highway will be stopped up at its junction with Main Road, with traffic no longer able to pass between these two roads.

#### **New A228 Roundabout and Spur Link Road**

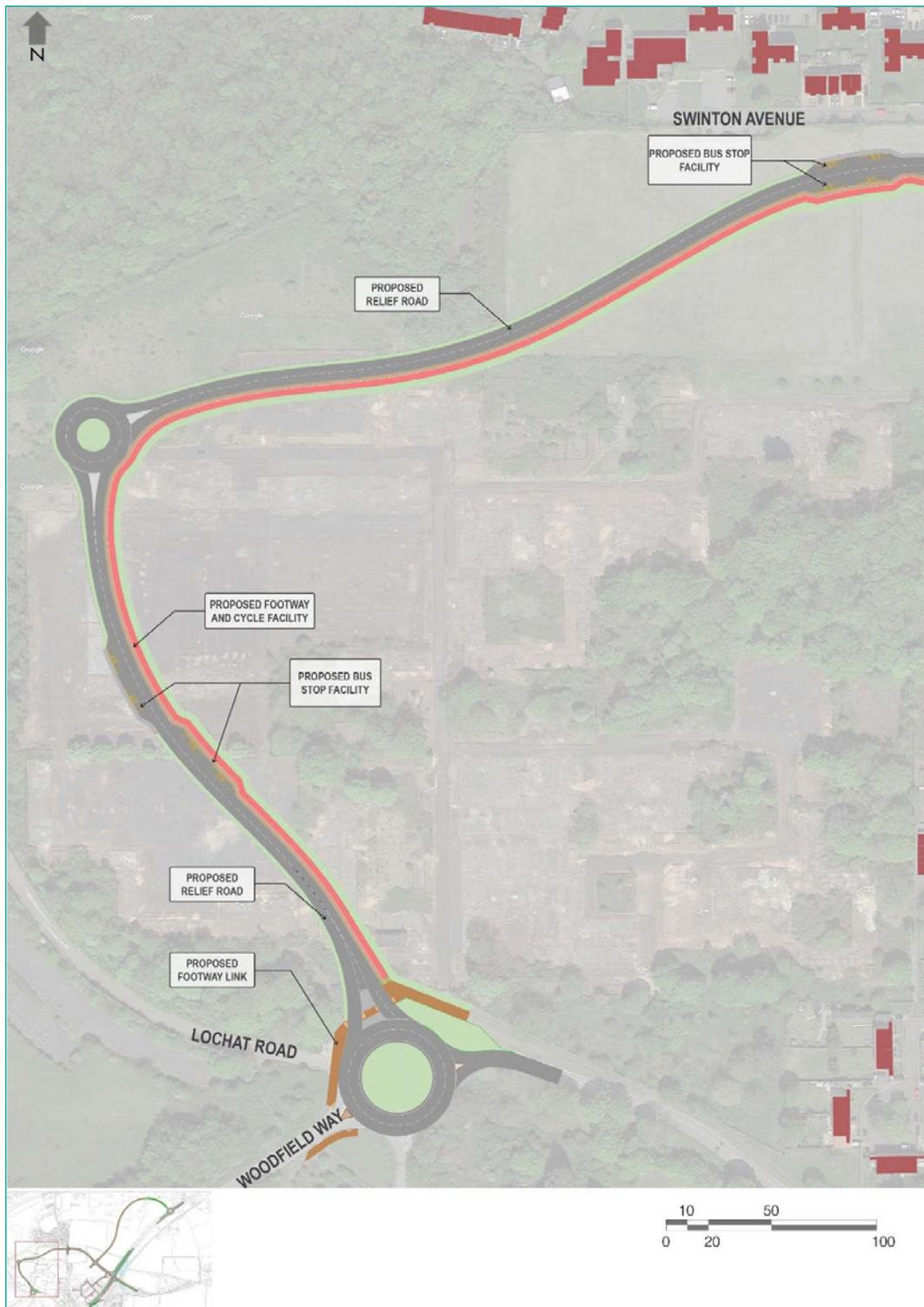
See figure 6 - An additional spur road is proposed from a roundabout junction with the New Relief Road to the east of Chattenden Lane, to an additional roundabout proposed between Main Road Hoo and Bell's Lane roundabout, passing through a small southern part of the former Deangate Ridge golf course.

#### **Walking and cycling**

The road improvements will include footways to provide priority for pedestrians and cyclists in terms of movement and crossing points. This will help to

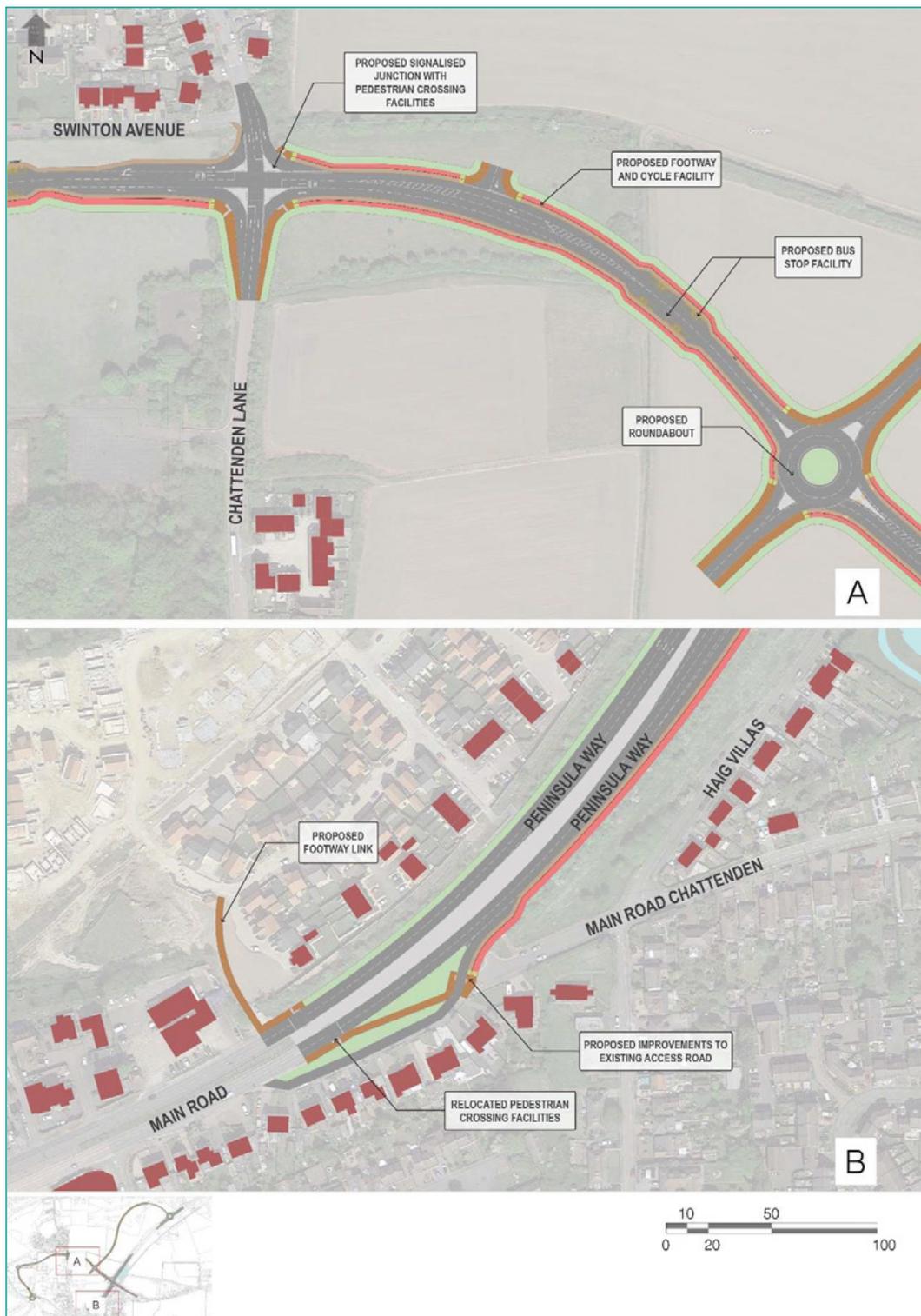
facilitate safe and easy pedestrian and cycling movement through the various developments in the area.

Segregated cycle tracks are also proposed for the relief road and the Main Road junction.



**Figure 5: Phase 2 - Proposed Relief Road from Upchat Roundabout to Chattenden Lane**

Figure 5 shows the improvements proposed at Upchat roundabout. This includes a new link for pedestrians and cyclists across the roundabout. To the north east of the roundabout a new relief road is to be provided. Provision of bus stops are proposed in both directions to facilitate future bus services.



**Figure 6: Phase 2 - Shows the continuation of the relief road to the east**

**View A** shows a new signal-controlled junction where the relief road intersects with Chattenden Lane. Moving east, a new roundabout is to be introduced that will serve proposed developments and provide a spur link. This link will provide a more direct route to the A289, easing traffic congestion on the A228 Main Road.

**View B** shows Main Road Chattenden south of the A228. Improvements include relocation of the existing crossing facility to provide improved connections into the Abbey Homes development.

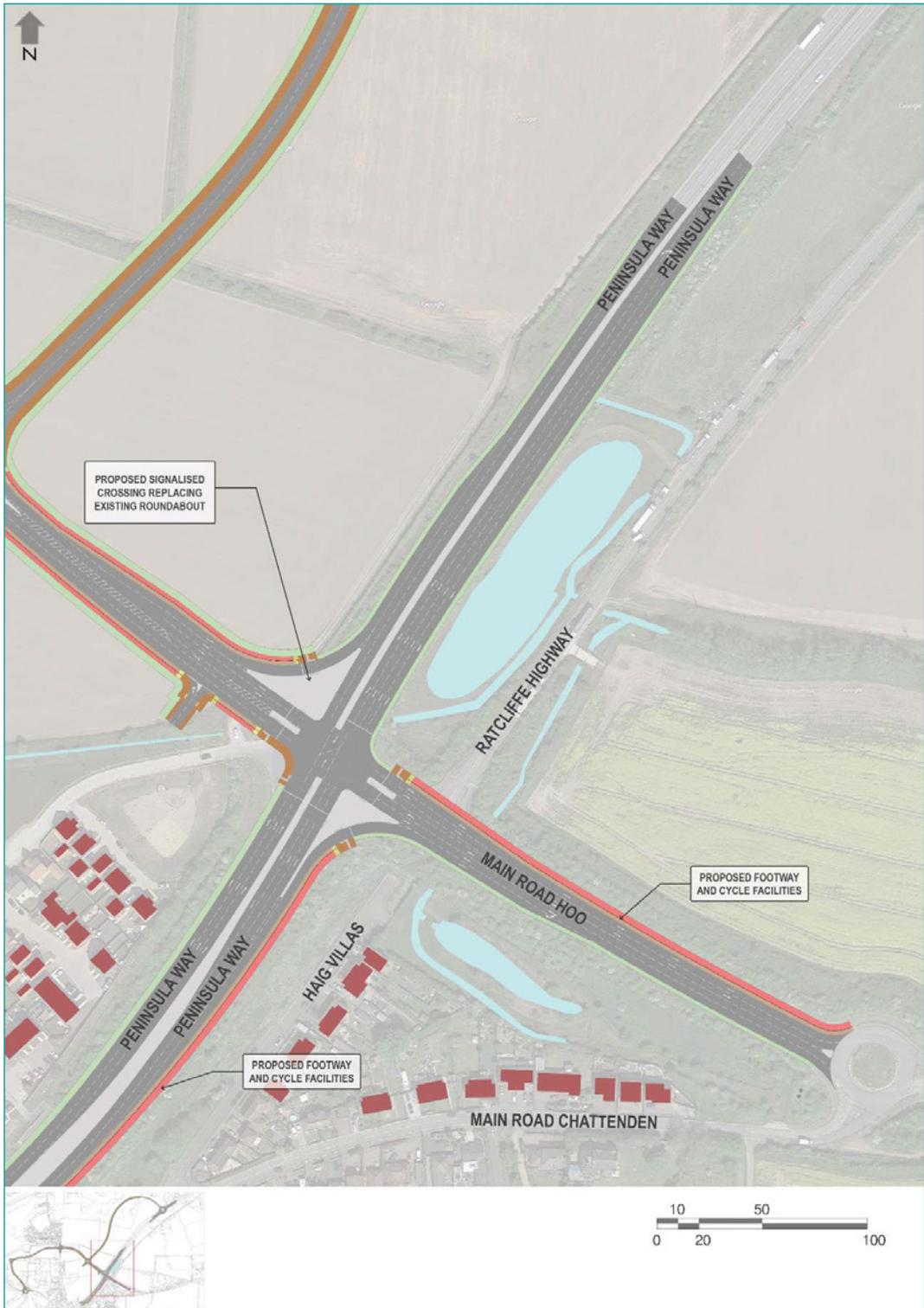
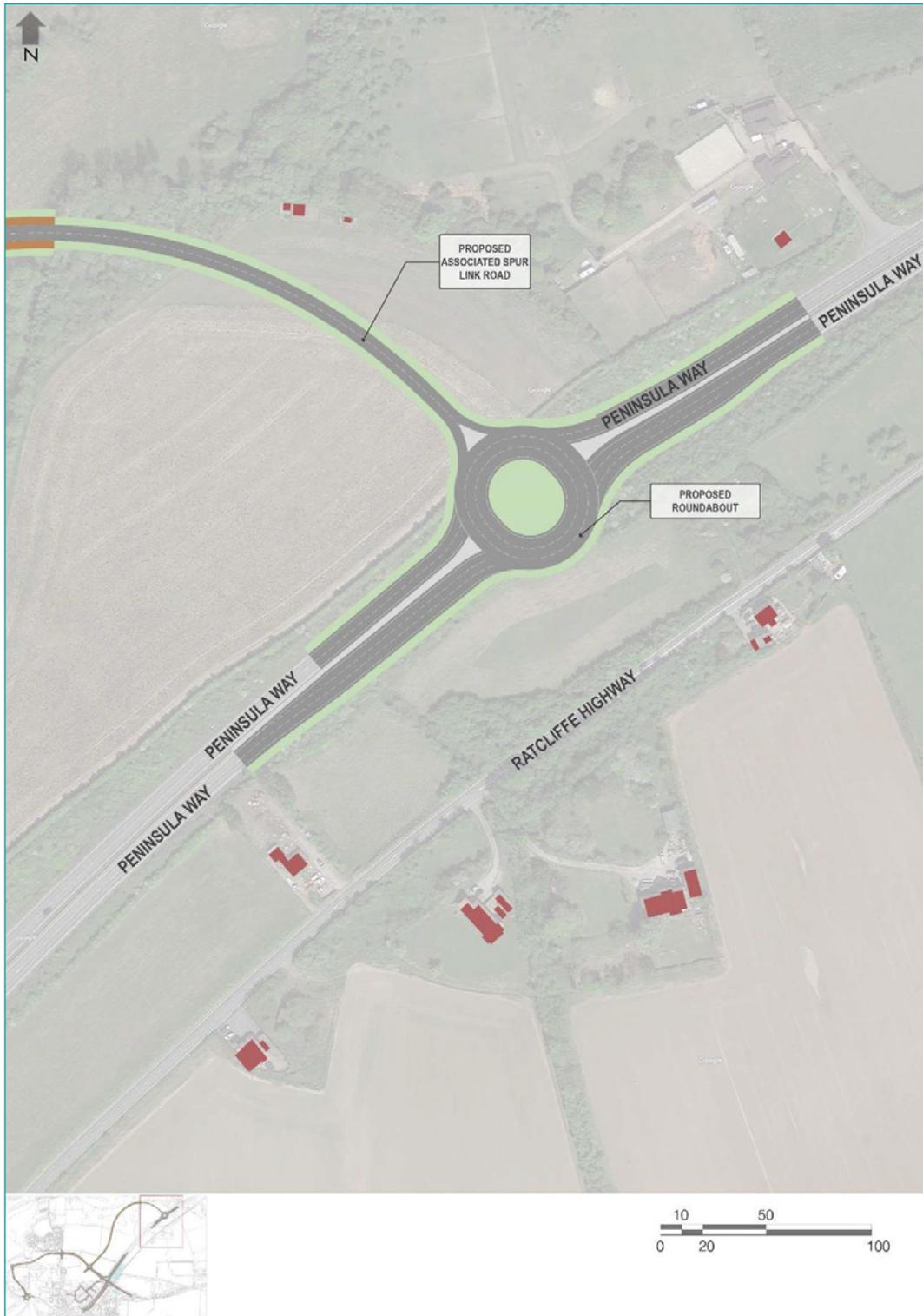


Figure 7: Phase 2 - Proposed A228/Main Road Roundabout junction modification



**Figure 8: Phase 2 - Proposed associated spur link road**

Figure 8 shows the continuation of the new spur road which provides a more direct route to the A289, easing traffic congestion on the A228 Main Road. Provision is also being made to cater for pedestrian and cycling use.



**Figure 9: Phase 2 - Proposed A228 Roundabout and associated spur link road**

Figure 9 Shows the new spur link road and its intersection with the A228 Peninsula Way where a new roundabout will be introduced between Main Road Hoo and Bell's Lane

## Phase 3 - Improvements to A228 Bell's Lane Roundabout and Dux Court Road (widening and link road)

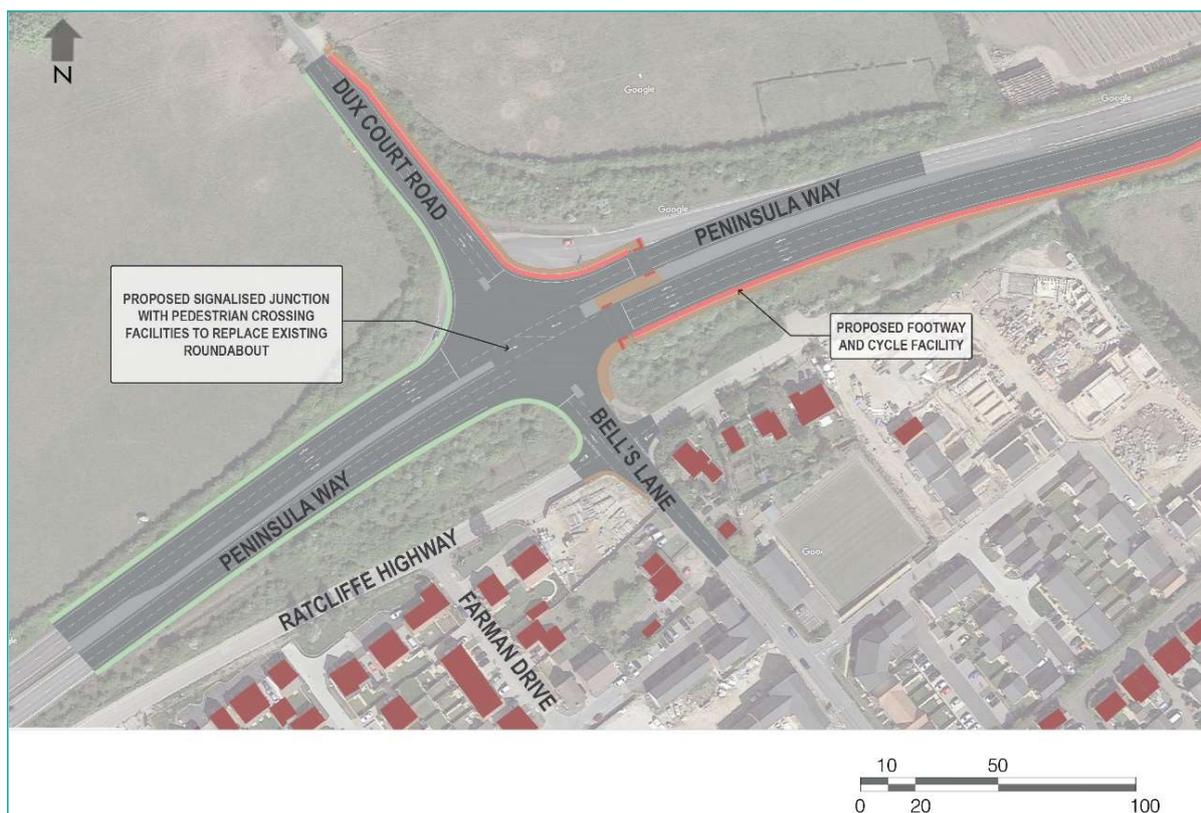
### The proposed works

The existing Bell's Lane Roundabout will be modified to improve access from the adjoining Bell's Lane and Dux Court Road.

### Walking and cycling

Footway and cycling provisions have been provided on the southern side of the A228 to tie-in to the existing facility at Bell's Lane and Ratcliffe Highway. A crossing with traffic signals will be situated east of the Bell's Lane roundabout providing a link towards a shared footway north of the A228. This provides a safer route for pedestrians as it moves them away from the roundabout.

Existing public rights of way across the road improvements are not impacted by the works.



**Figure 10: Phase 3 - Improvements to A228 Bell's Lane Roundabout and Dux Court Road (widening and link road)**

Figure 10 shows the proposed improvements at Bell's Lane.

The existing roundabout configuration will be modified to provide capacity for additional traffic, whilst improving the links between Dux Court Road and Bells Lane for all modes.

## Phase 4 - Improvements to Ropers Lane Roundabout and Modification to the Stoke Road roundabout to allow access to the new station

### The proposed works

The existing Ropers Lane Roundabout will be modified to accommodate the projected traffic growth from adjacent housing developments and the proposed rail station. The existing Stoke Road roundabout is being modified to allow access to the new rail station.



**Figure 11: Phase 4 – Improvements to Ropers Lane Roundabout**

Figure 11 indicates the improvements proposed at Ropers Lane roundabout to accommodate additional traffic associated with the rail station.

A new highway link is proposed from the existing Stoke Road roundabout which will provide access into the new station for vehicles, pedestrians and cyclists.

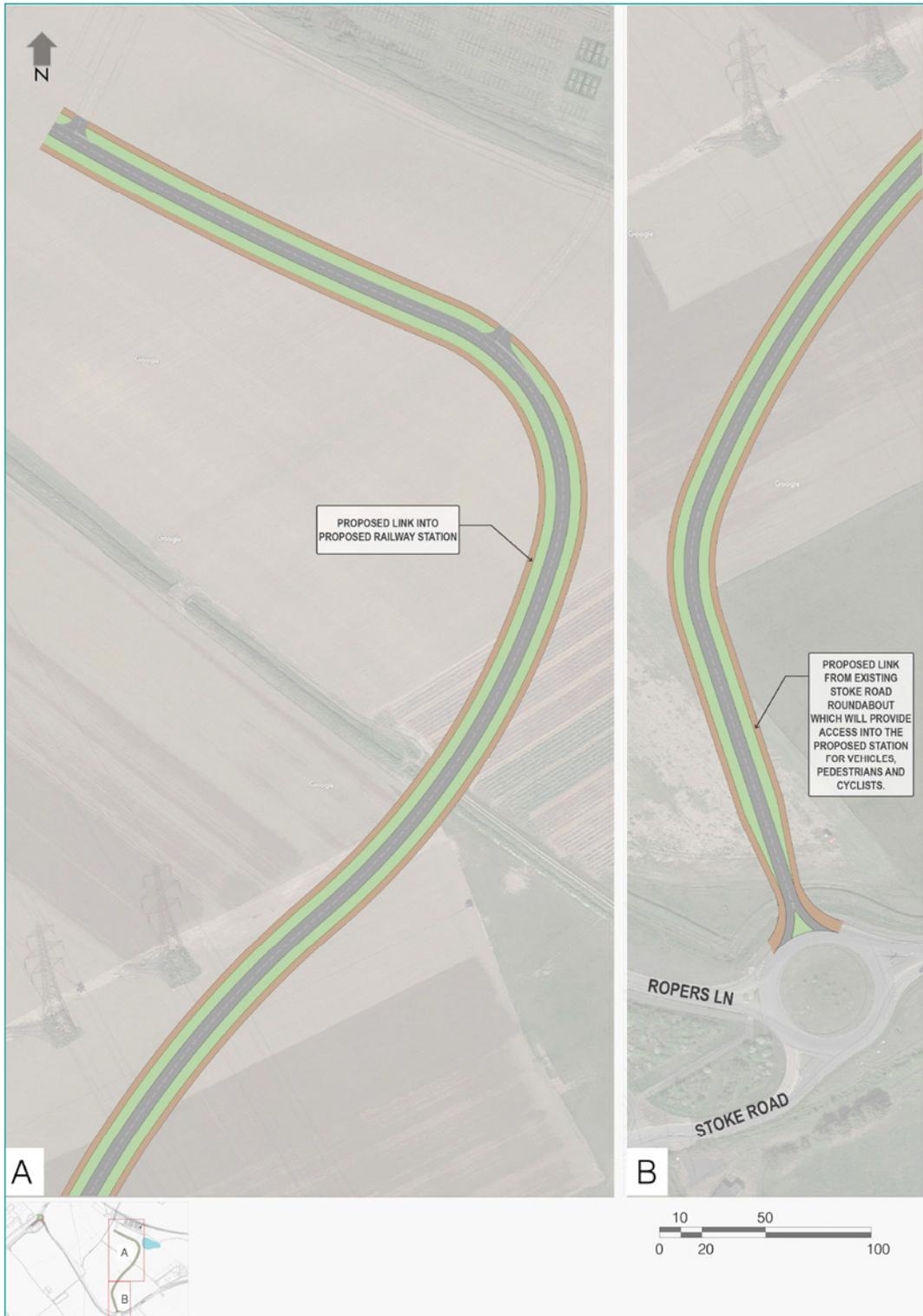


Figure 12: Phase 4 - Proposed link to proposed railway station

## Phase 5 - Four Elms Roundabout

### The proposed works

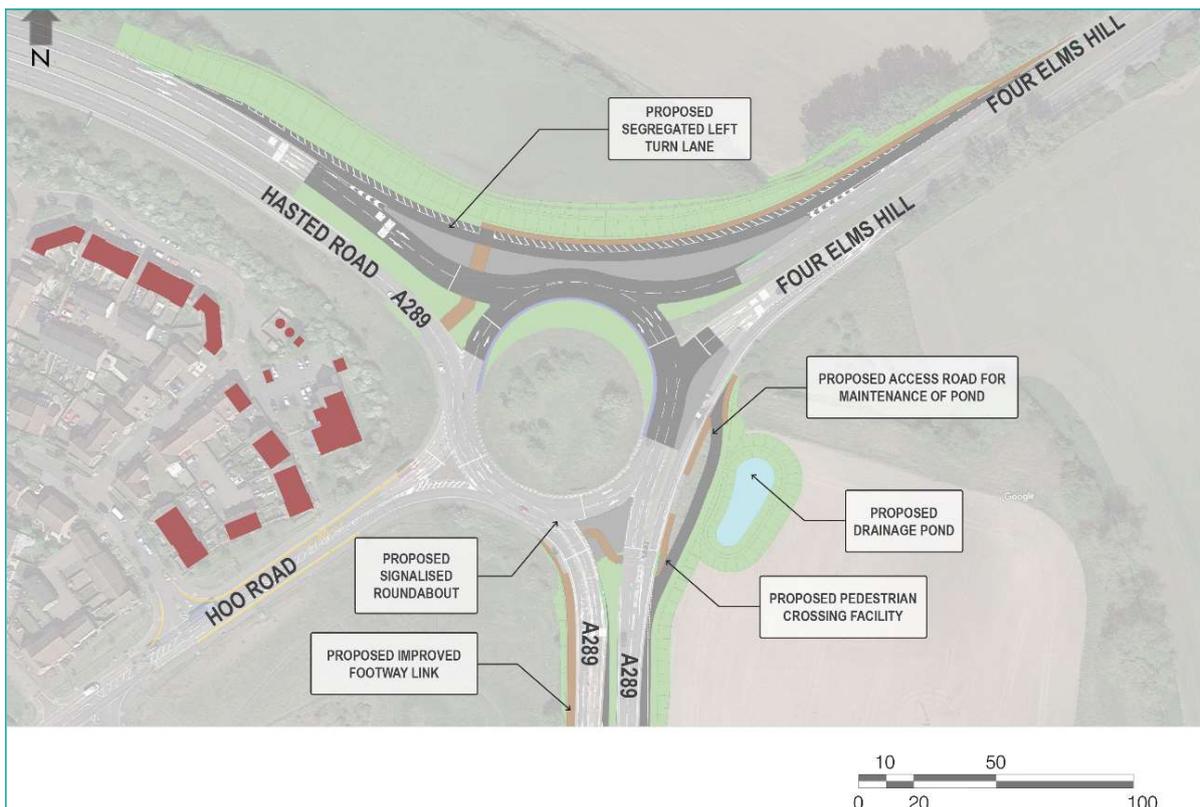
To increase road capacity on Four Elms Roundabout the following interventions are proposed.

- Additional lane on approach roads
- Increased circulation capacity at the roundabout
- A new highways drainage pond and associated access
- A dedicated slip road from the A289 Hasted Road to northbound A228

### Walking and cycling

As part of the new proposals, a new shared pedestrian/cycle footway and crossing facilities will be provided following on from intended collaboration with key stakeholders.

The public rights of way (RS119 - Granary Cottage to Hoo Road) at Four Elms Hill will be re-routed around the embankments to maintain the route.



**Figure 13: Phase 5 - Four Elms Roundabout**

Figure 13 indicates the additional measures being provided at Four Elms Hill to ease congestion. This includes the introduction of slip lanes to cater for the additional traffic to the Peninsula.

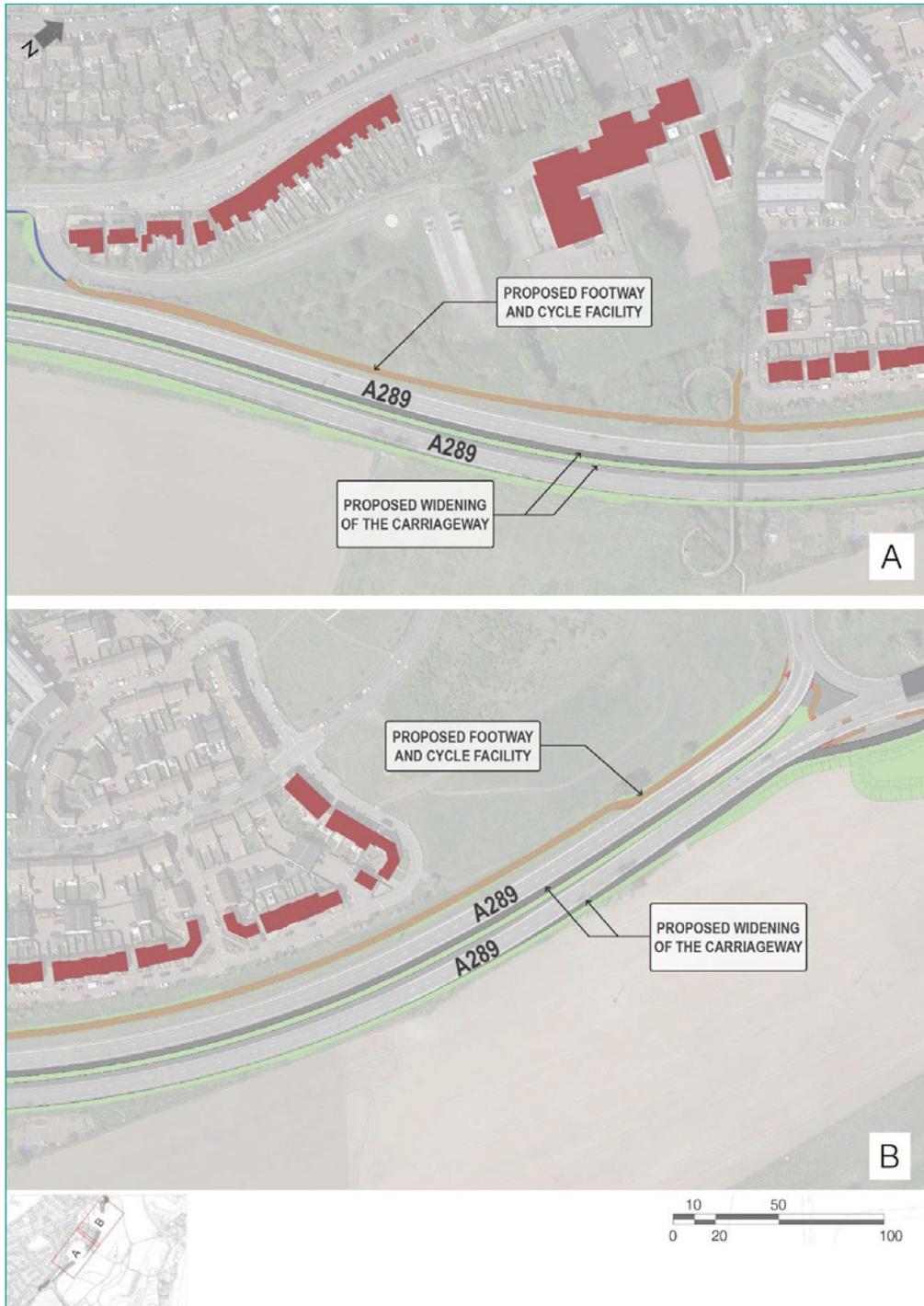
Maintenance areas will be provided as well as signal-controlled crossings to improve safety and accessibility at the junction for pedestrians and cyclists.

## Phase 6: Wulfere Way and Sans Pareil Roundabout

### The proposed works

#### Wulfere Way

Wulfere Way is currently a two-lane dual carriageway. As part of the improvements, an additional lane in each direction is proposed.



**Figure 14: Phase 6 - Wulfere Way**

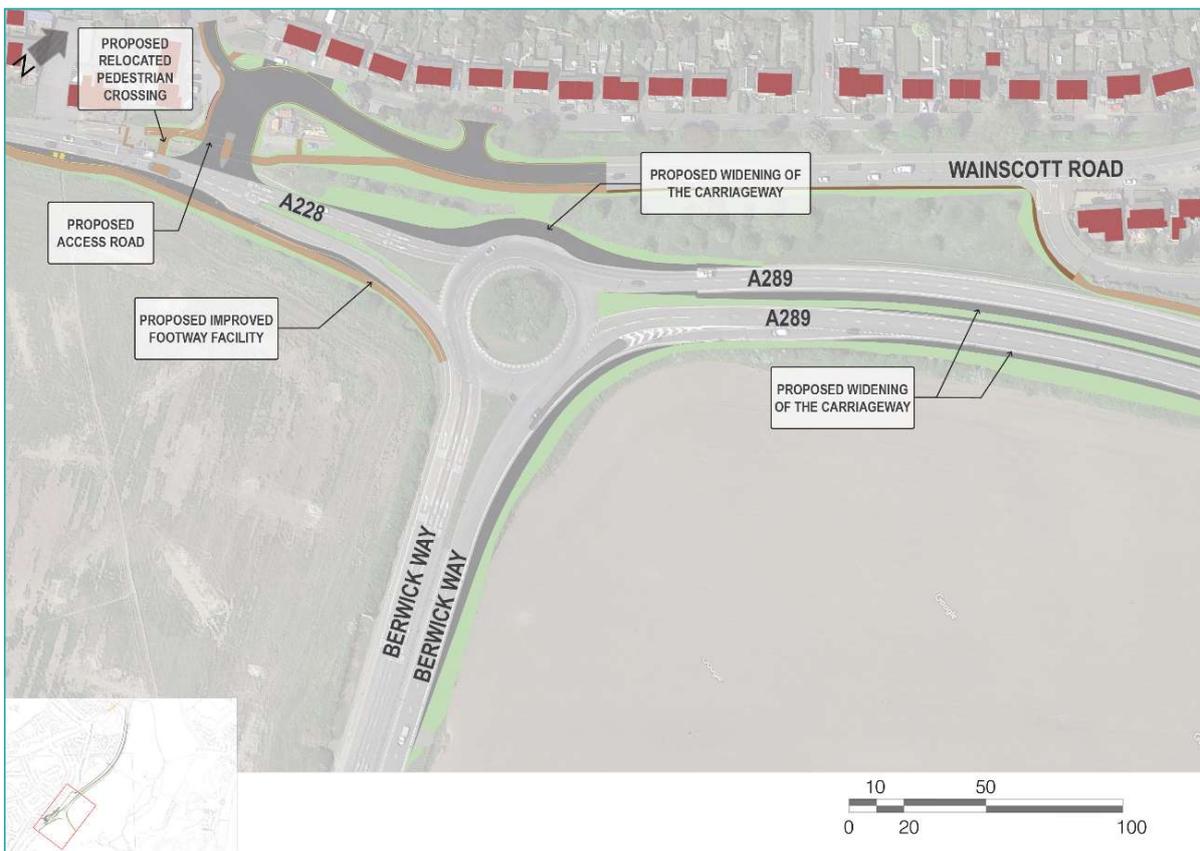
Figure 14 shows the proposed works along the A289 Wulfere Way. The works include the widening of the existing carriageway to provide three lanes in each direction. A footway cycleway will be provided along its length, connecting the facilities at Four Elms roundabout and Sans Pareil.

## Sans Pareil Roundabout

Various improvements are proposed at this roundabout including an additional lane on approaches, increased circulation capacity and a dedicated slip road to the northbound A228. The Wainscott Road access to the roundabout is also proposed to be relocated to reduce conflict at the roundabout and improve access to and from Benenden Road and Wainscott Road.

## Walking and cycling

New pedestrian/cycle footway and crossing facilities will be provided following on from intended collaboration with key stakeholders.



**Figure 15: Phase 6 - Sans Pareil Roundabout**

Figure 15 shows the roundabout extension required to accommodate additional lanes that will increase circulation capacity and reduce queuing.

The access to Wainscott Road and Benenden Road will be relocated away from the junction and additional pedestrian and crossing facilities provided to improve accessibility.

## Construction

We will seek to minimise disruption to the existing highway network during the construction period. Construction of the six packages is to be split into stages to avoid impacting the existing highway network. Construction within Phase 2 will be mostly constructed away from the highway network. Site compounds will be located within the surrounding land.

During the construction period, traffic flows will be maintained where possible. Any road closures required will be restricted to night-time only and suitable diversion routes will be provided. Residential access will be maintained throughout construction. Consultation will take place with key stakeholders such as Police and emergency services before works are carried out to consider phasing, traffic management and suitable diversion routes. Variable messaging signs (VMS) will be used to inform road users of the works and alternative routes. Information leaflets will be sent to inform local residents and businesses of the proposed construction works in advance of them taking place in each locality. These measures will form part of a Construction Traffic Management Plan, an outline of which will be submitted with the planning application for the proposals.

## Ecological and environmental constraints

The following ecological and heritage interests are in close proximity to the proposed works and will be taken into account in the development of our proposals:

**Phase 1** - Woodfield Way is located within Chattenden Woods and Lodge Hill Site of Special Scientific Interest (SSSI). No works are proposed outside of the existing carriageway. The area contains broad-leaved semi-natural woodland.

**Phase 2** - The site of the works is not subject to any statutory or non-statutory designations but is adjacent to Chattenden Woods and Lodge Hill SSSI. The area contains arable land, broad-leaved ancient semi-natural woodland, scattered scrub and a small section of amenity grassland.

**Phase 3** - The site of the works is not subject to any statutory or non-statutory designations. The area contains low ecological value grassland, continuous and scattered scrub, hedge and trees.

**Phase 4** - The site of the works is not subject to any statutory or non-statutory designations. The area contains arable land, scattered trees, scattered and continuous scrub and hedge and trees.

**Phase 5 and 6** - The site of the works is not subject to any statutory or non-statutory designations. The site works are adjacent to the Conservation Area of Frindsbury and Manor Farm.

## Ecological and environmental mitigation

There will be no substantive works to Woodfield Way (Phase 1) within the vicinity of the SSSI area.

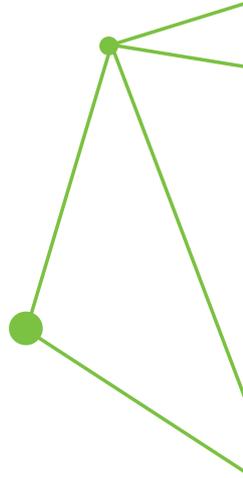
There are potential direct and indirect impacts to the habitat within the SSSI from the relief road (Phase 2). We will work closely with Natural England to understand any potential for disturbance and noise impacts to the nationally important nightingale population and other habitats and species, and to ensure that appropriate mitigation measures are put in place.

We have carried out several surveys to determine which protected animal species will be affected by the scheme. Badgers, bats, great crested newts, nesting and wintering birds, reptiles and water voles have been identified in the area.

Additional/updated surveys to establish the numbers of protected animal species will be carried out prior to the start of construction, so that suitable measures can be taken to find new habitats for them so that they are not affected by the work.

A precautionary approach to any vegetation clearance in respect to breeding birds, hazel dormice, bats, and badgers will be implemented to minimise any adverse impacts on these species.

Please see Section 6 for further details of our proposals for managing environmental impacts.



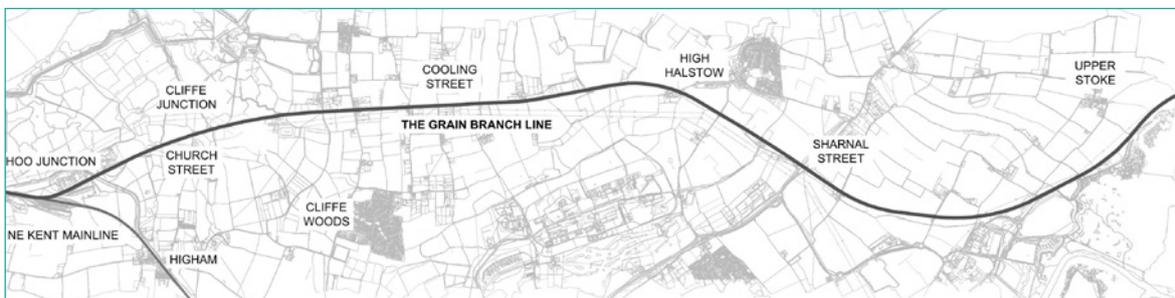


## 4 - RAIL PROPOSALS

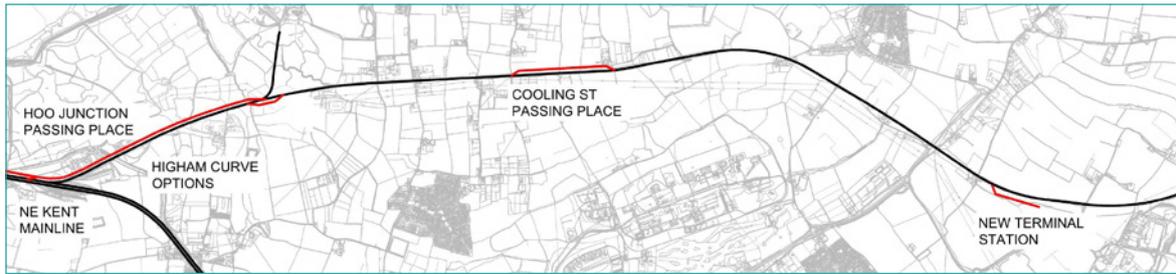
### OVERVIEW

Our proposed railway works will reinstate a passenger service on the Grain branch line and create a new station south of Sharnal Street. This will improve connectivity and help to support sustainable growth on the peninsula by providing a reliable link to London and an interchange option at Gravesend to link to locations across Medway.

#### Overview of proposed rail route



**Figure 16: Existing NE Kent Mainline and the route of the existing Grain rail line east which will form the basis of the new passenger service**



**Figure 17: Principal locations on proposed route**

Figure 17 showing the principal works on the line including electrification and dualling of the line at Hoo Junction and Cooling St and a new terminal station east of Hoo.

The existing single line will also be provided with passing places at Cooling Street and between Canal Road and Cliffe junction to improve the frequency of trains and provide flexibility in the service.

A half hourly service is proposed. There is scope for the frequency of the service to be increased in line with demand in future national timetable updates as the patronage at the station increases.

Should demand increase, there is the opportunity for the service to be extended beyond Sharnal Street with additional stations being included further down the line. This would be the subject of a separate scheme and does not form part of this project.



## Sharnal Street Station

### The proposed works

We propose to create a new feature/destination station south of Sharnal Street to maximise access into and out of the peninsula. The station will provide both a transport link for those living on the peninsula, reducing reliance on cars as the primary means of transport as well as opening up access to the leisure opportunities within the peninsula to those who do not.

The location of the station has been chosen to integrate with any proposed development around the village of Hoo that may be brought forward pursuant to the new Local Plan.



**Figure 18: Aerial view of proposed station**

View of the proposed station location with disabled parking close to the station entrance. Barn style station in keeping with the local character and future aspirations for a second platform should stations to the east be developed in the future.



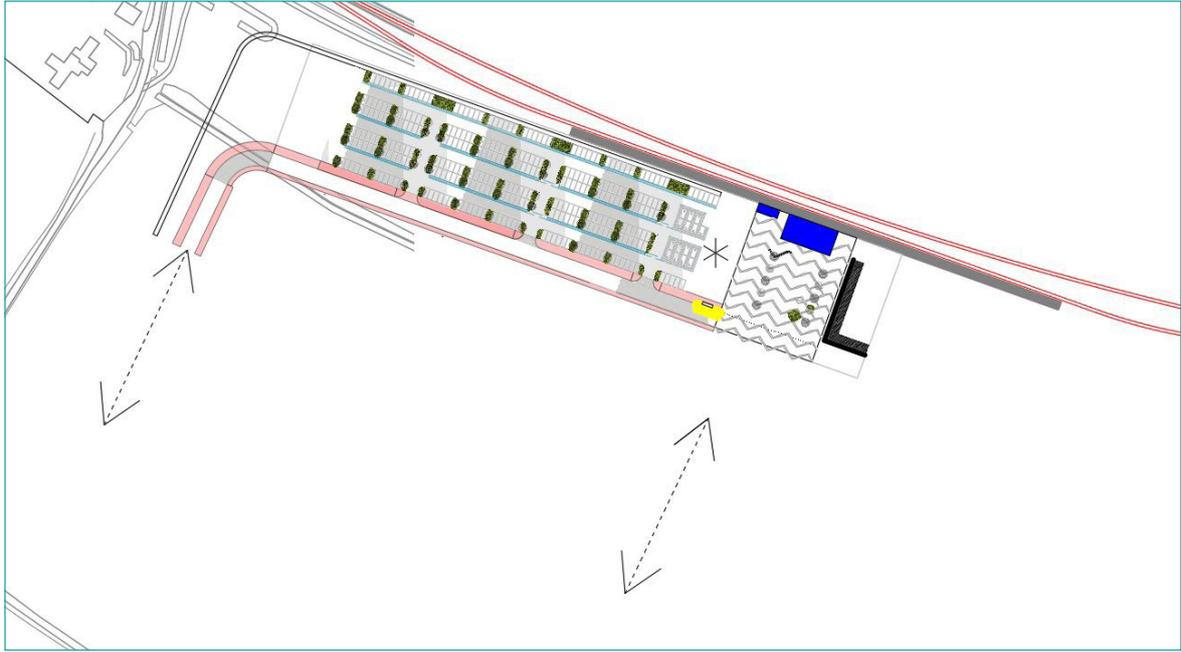
**Figure 19: View of station concept option 1**

A view of the barn style station set in a station square comprising wavy lines to reflect the nautical nature of the area, and its shortwave radio heritage. This station building is expandable to provide additional facilities as the station patronage increases.



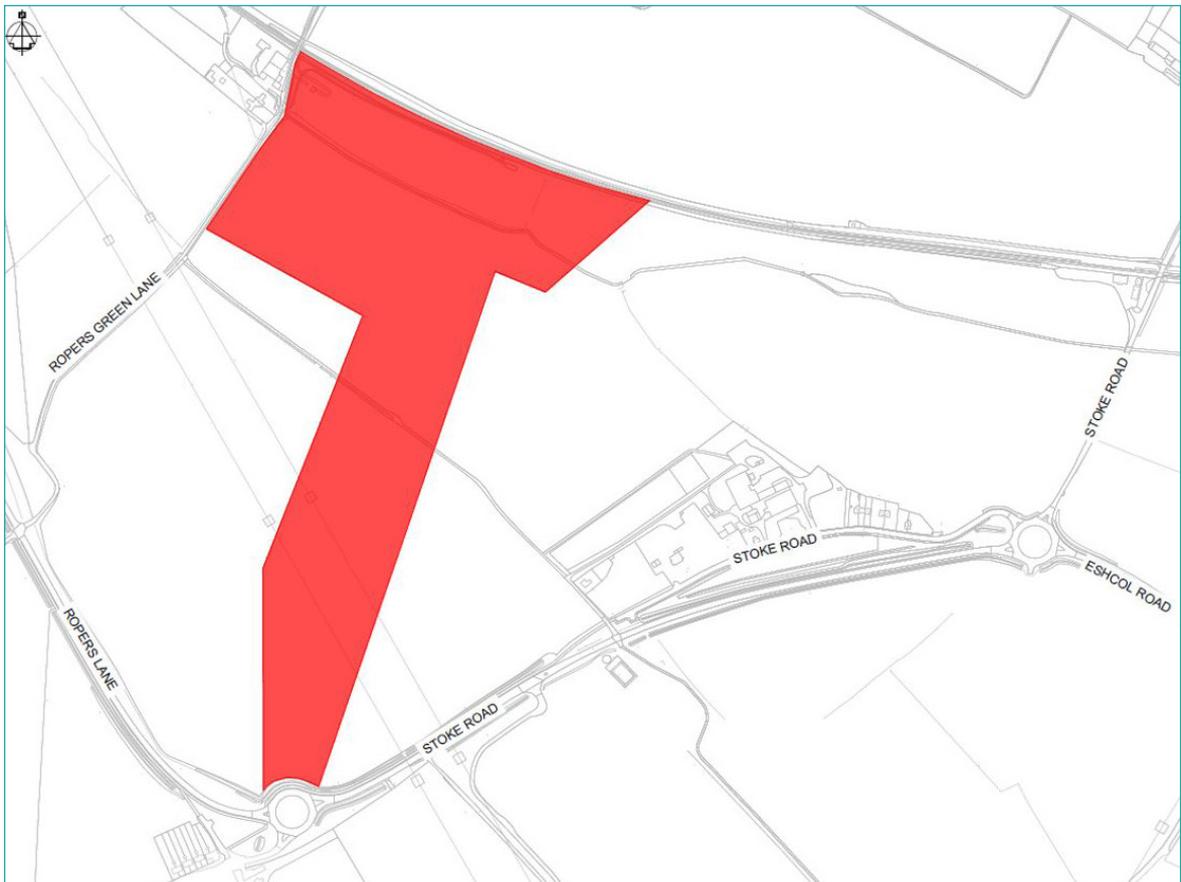
**Figure 20: View of station concept option 2**

A view of an alternative style station to reflect the airship heritage of the area set in a station square as before.



**Figure 21: Station general arrangement**

A plan showing the location of the station east of Ropers Green Lane between the railway and the brook with two access routes from the south west and cycling/pedestrian route from Ropers Green Lane.



**Figure 22: Proposed station location, including land for construction and access**

Figure 22 is a plan showing the areas required for the station and access road from Ropers Lane Roundabout including areas for temporary works and construction.

The station itself will provide an access to a direct link to London to facilitate both work and leisure travel into London with an option to change at Gravesend for services to locations across Medway.

The station could form part of an integrated transport hub for development in the area which could include both cycle routes to the housing and the wider peninsula, and feeder bus routes linking the station with any potential new and existing housing and employment areas.

Initially, a small single platform station will be created, to reflect the expected patronage. But as passenger numbers increase over time, the station could be expanded to include a second platform. The initial station design would provide basic facilities for waiting passengers but could be developed to provide additional facilities in the future.

### **Walking and cycling**

The station is located close to national cycleway feeder route 179 and a new cycleway and pedestrian route is proposed along Ropers Green lane directly into the station giving excellent safe access. Secure cycle storage will be available at the station to encourage cycling.

The inclusion of bus routes into any adjacent residential and employment areas that may be brought forward will position the station as an important transport interchange in the area reducing the reliance on private cars and protecting the local environment.

### **Construction**

The station will be constructed entirely offline using pre-fabricate parts, with all works compounds located within the station footprint and surrounding land.

There will be some works that impact on the existing freight services on the line. These impacts will be managed in consultation with Network Rail and freight operators.

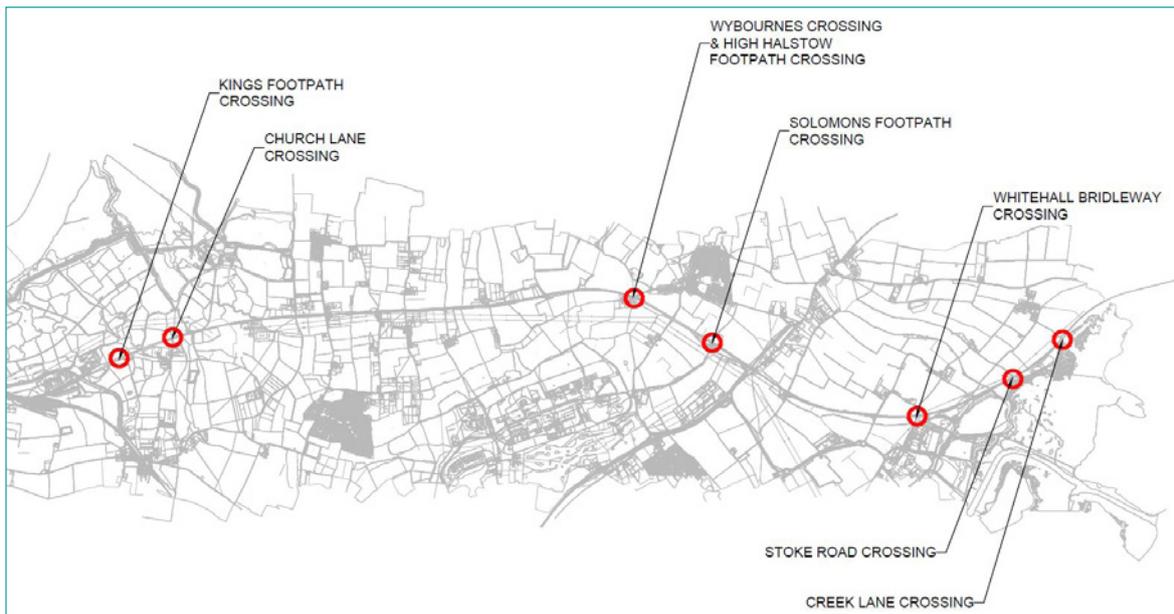
Construction work is likely to take two years to complete, but most of this work will be contained wholly within the development site.

Outside of the land to be used to construct the station, there will be no direct impact on the routes used by residents or the general public. There are no rights of way across the land and all works access shall be from the existing field gates or the new junction from the highway.

Construction traffic will be managed to limit the impact on local residents. It may also be possible to use the existing freight line to bring in bulk materials.

## Level crossings

A rail passenger service to Hoo will be electrified using 3rd rail electrification to provide compatibility with the main line, increase the number of trains on the line, and their speed. Consequently, existing footpath and vehicular crossings over the railway will need to be segregated to ensure the safety of users. This can be done either by physical separation (Bridges) or by diversion of the route to an existing crossing. Our current proposals for changes to level crossings are set out below.



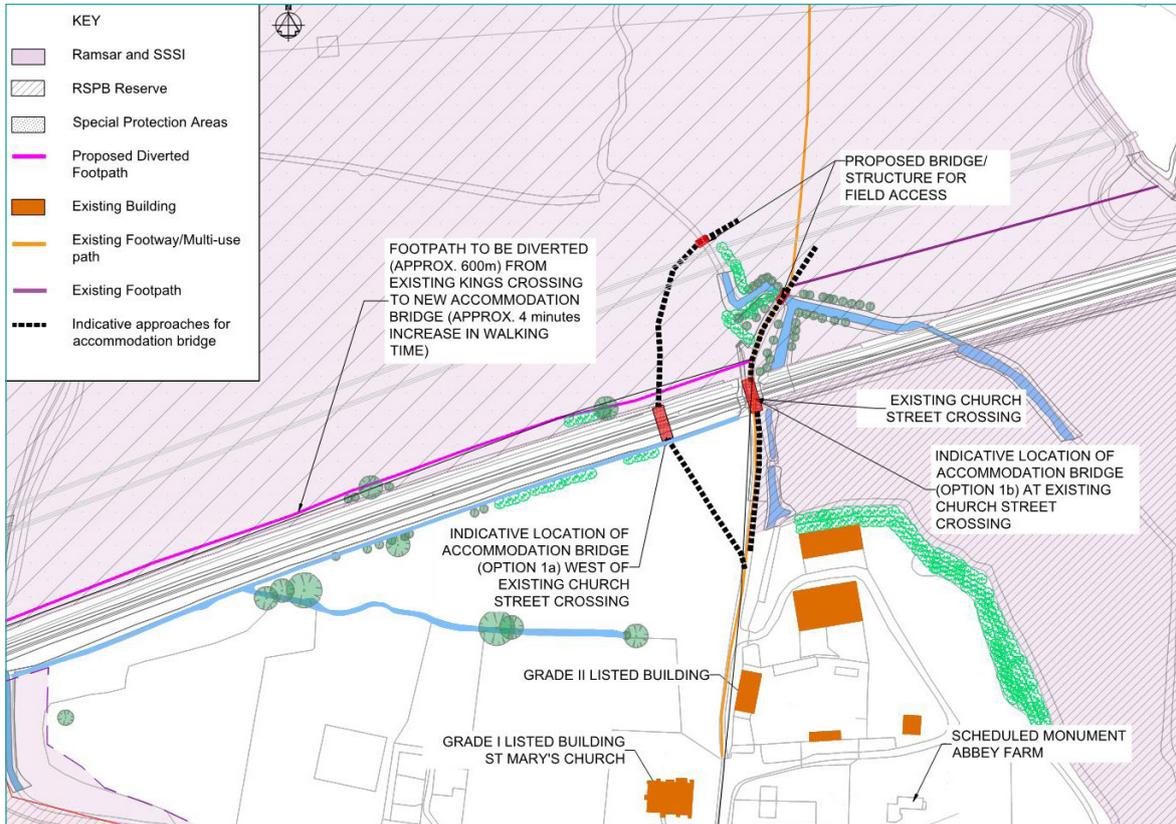
**Figure 23 shows the location of public rights of way along the existing Grain Line as listed in the table 1 (below).**

Table 1 the table below shows the accesses and public rights of ways that are affected at each crossing:

<b>Crossing</b>	<b>Public Right of Way and existing access reference</b>
Church Lane Crossing	NS 138
Kings Crossing	NS 140
Wybourne & High Halstow Crossing	RS 045 / Wybourne Farm access
Solomon's Crossing	RS 046
Whitehall Bridleway Crossing	RS 108
Stoke Road Crossing	Private access
Creek Lane Crossing	RS 34

## Church Street Crossing

There are currently two crossings in the vicinity of Church Street, which lies within Gravesham; a private/farm crossing (NS 138) at Church Street as shown below, and a pedestrian crossing for footpath users to the west (NS 140) which is discussed later in the section titled 'Kings Crossing'.



**Figure 24: Church Street Crossing**

Figure 24 shows the location of a new crossing at either the same location as the existing farm crossing at Church St, or positioned slightly off-line to allow the existing crossing to remain in use while the new crossing is constructed.

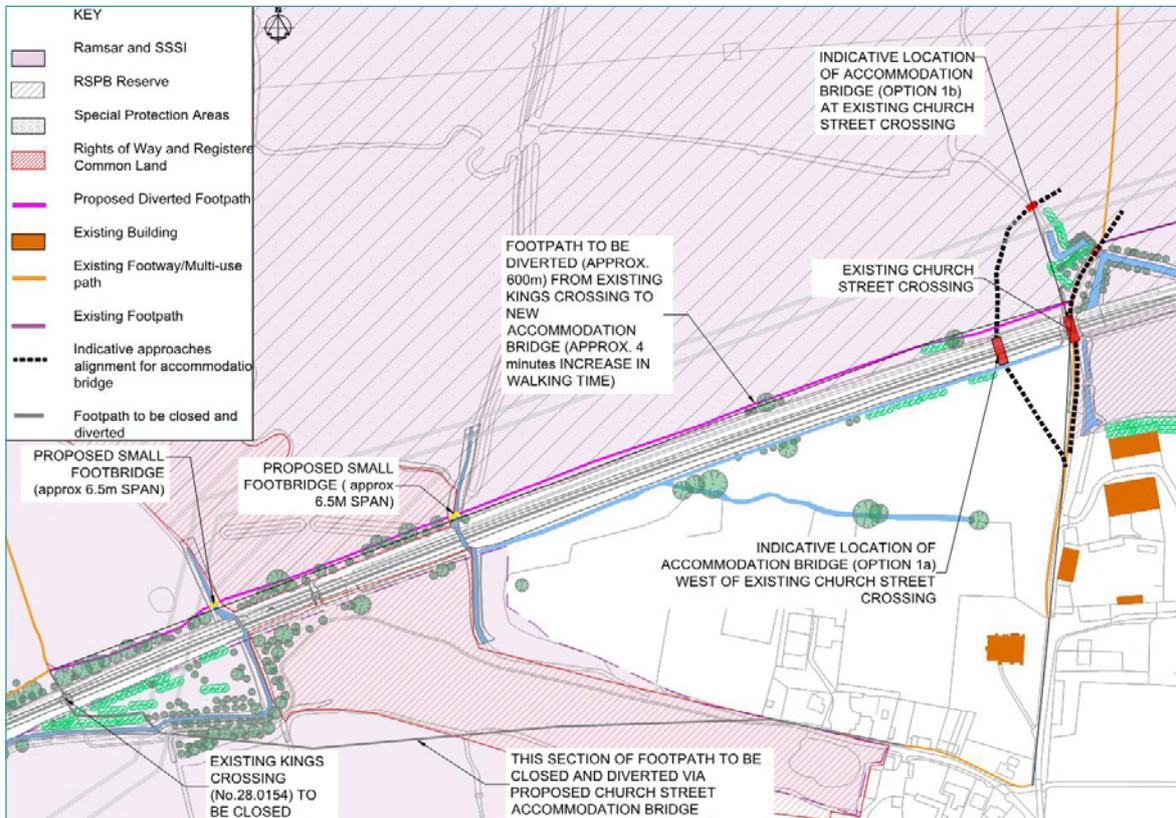
As indicated in Figure 24 (above), a new single span accommodation bridge is proposed for the private/farm access.

Various proposals for the new bridge, its location and the alignment of the road leading up to it are currently being considered.

Construction of the new bridge will begin with the necessary groundworks. The bridge supports can then be constructed before the installation of the bridge deck. The anticipated duration for the proposed construction works is 12 months. The construction works will take account of the needs of the agricultural and public footpath users of the bridge.

## Kings Crossing

Kings Crossing located to the west of Church Street, Gravesham currently provides access across the existing railway for footpath NS 140.



**Figure 25: Kings Crossing**

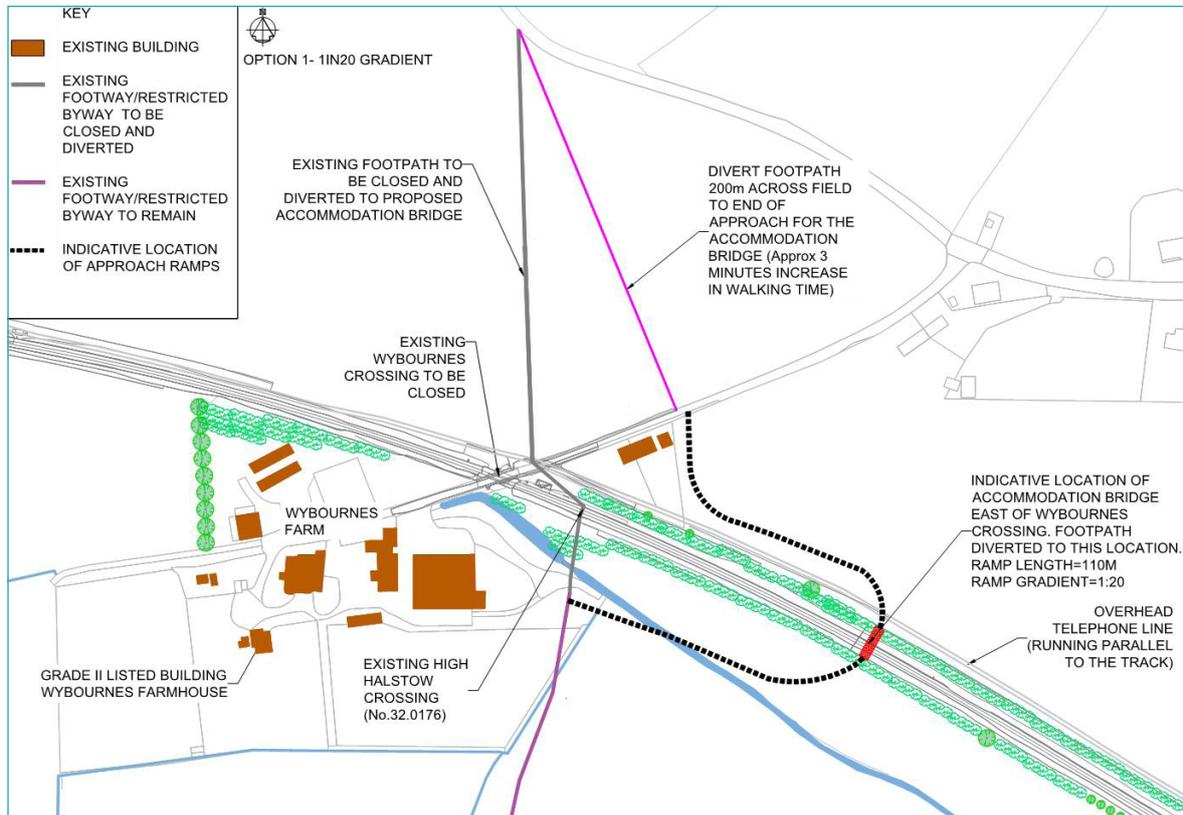
Figure 25 shows the crossing and the proposed diversion over the proposed Church St Accommodation bridge some 600m east of the current crossing.

The feasibility of replacing the crossing with a new footbridge has been considered but was discounted on the basis that the structure would be 9m in height overall, and would require support and ramps to provide access for all within the protected Ramsar area. Proposals for various diversion routes were therefore considered. The option which is most appropriate is to close the existing crossing and divert the footpath to the location that is chosen for the new accommodation bridge to the east at Church Street as shown above. Two new small footbridges would be required along the proposed route to cross existing watercourses.

The proposed diversion will increase walking time by less than five minutes.

## Wybournes Lane Level Crossing and High Halstow Footpath Crossing

The existing level crossing, located approximately 600m southwest of High Halstow, currently provides private access from Wybournes Lane to the agricultural and residential units south of the railway. The existing footpath RS 045 crossing is situated approximately 50m east of Wybournes Lane Level Crossing.



**Figure 26 shows the closure of the existing level crossing to Wybournes Farm and a new access route over an accommodation bridge to the east.**

A new accommodation bridge is being considered to replace the level crossing and adjacent footpath crossing. Due to the proximity of buildings either side of the railway, it is not possible to build the replacement structure on the current alignment of Wybournes Lane. It is therefore proposed to locate the bridge to the east of the existing crossing, bridging over the watercourse and the railway. The new access road deviates from the existing road alignment north of Wybournes Cottages via a new junction. Access to Wybournes Cottages will remain unchanged.

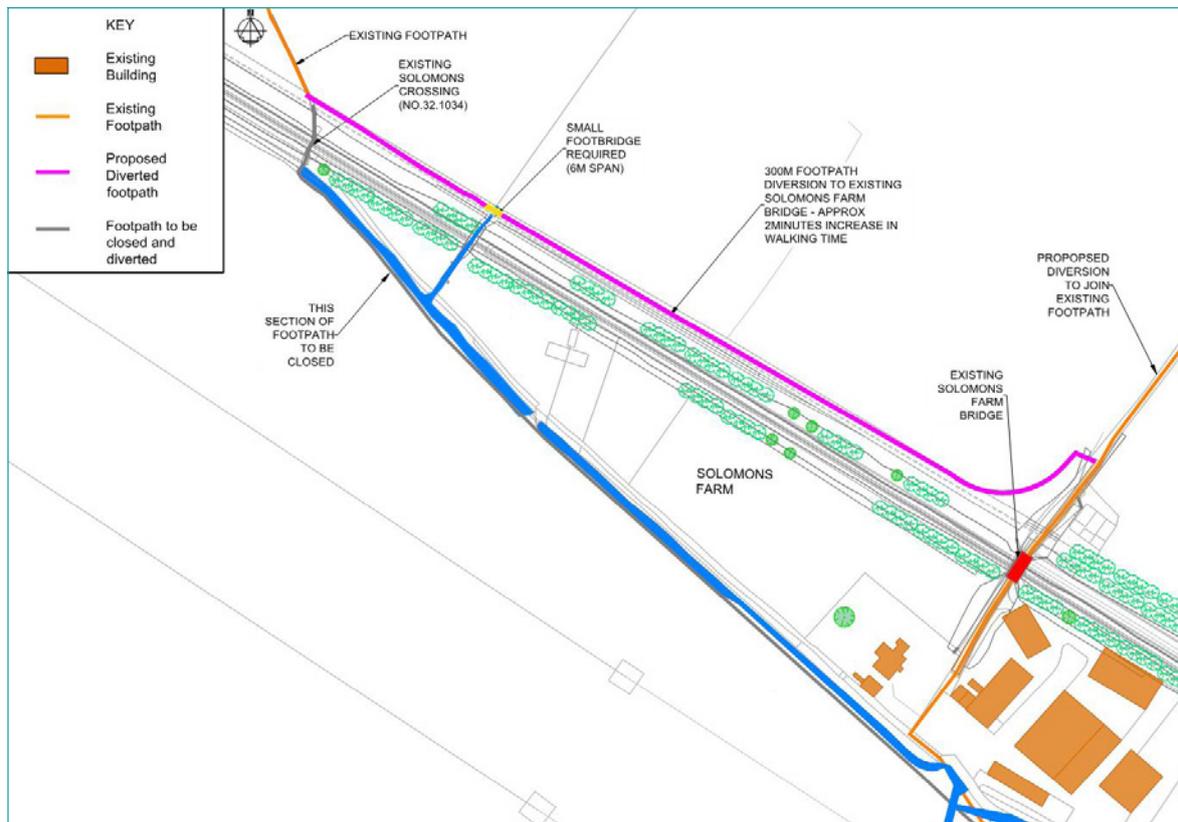
The current footpath would be diverted over the accommodation bridge. The additional travel time of the diverted route would be minimal and anticipated to be less than three minutes.

Diversion via the existing Dux Court Road Bridge, approximately 575m to the east, is not considered feasible as the existing structure is not suitable for pedestrian and equestrian use and would require strengthening works.

Construction of the new bridge would take approximately 12 months.

## Solomon's Footpath Crossing

The existing foot crossing is situated approximately midway between Dux Court Road and Solomon's Farm, providing access over the line for footpath RS 046.



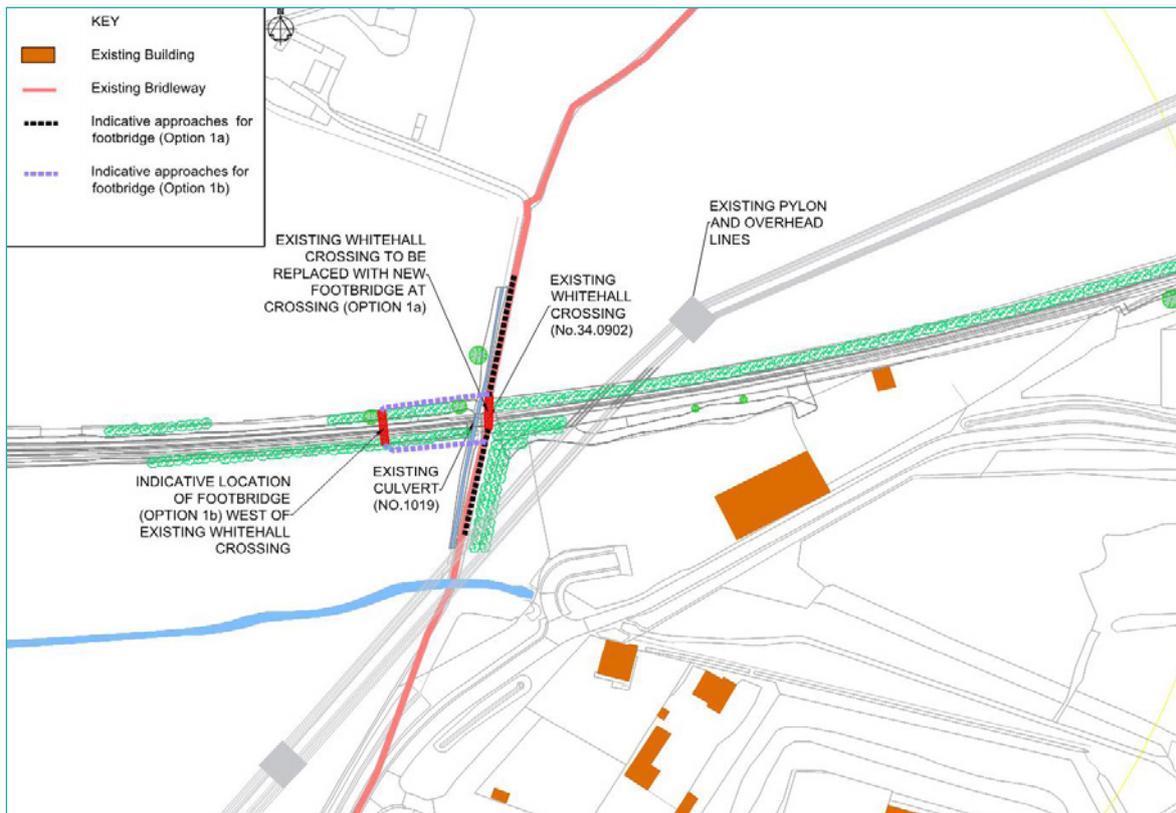
**Figure 27: Solomon's Crossing**

Figure 27 above shows a proposal for the crossing to be removed and the footpath to be diverted via the existing bridge at Solomon's Farm 300m to the east. The additional travel time of the proposed diversion route will be less than two minutes.

## Whitehall Bridleway Crossing

The existing crossing for bridleway RS 108 is currently situated approximately 500m east of Stoke Road bridge over the railway.

It is proposed that the crossing is removed, and a bridleway bridge is installed at the location, with approach ramps following the alignment of the existing bridleway route. The ramps would extend approximately 80m either side of the railway. An alternative proposal also being considered is to construct the new bridge to the west of the current alignment, with approach ramps returning users to the location of the existing crossing.



**Figure 28: Whitehall Bridleway Crossing**

Figure 28 shows how the existing gated bridleway across the track would be replaced with a new equestrian bridge along the same alignment.

This crossing would eliminate the need for horse riders to dismount and open and close gates to cross the railway.

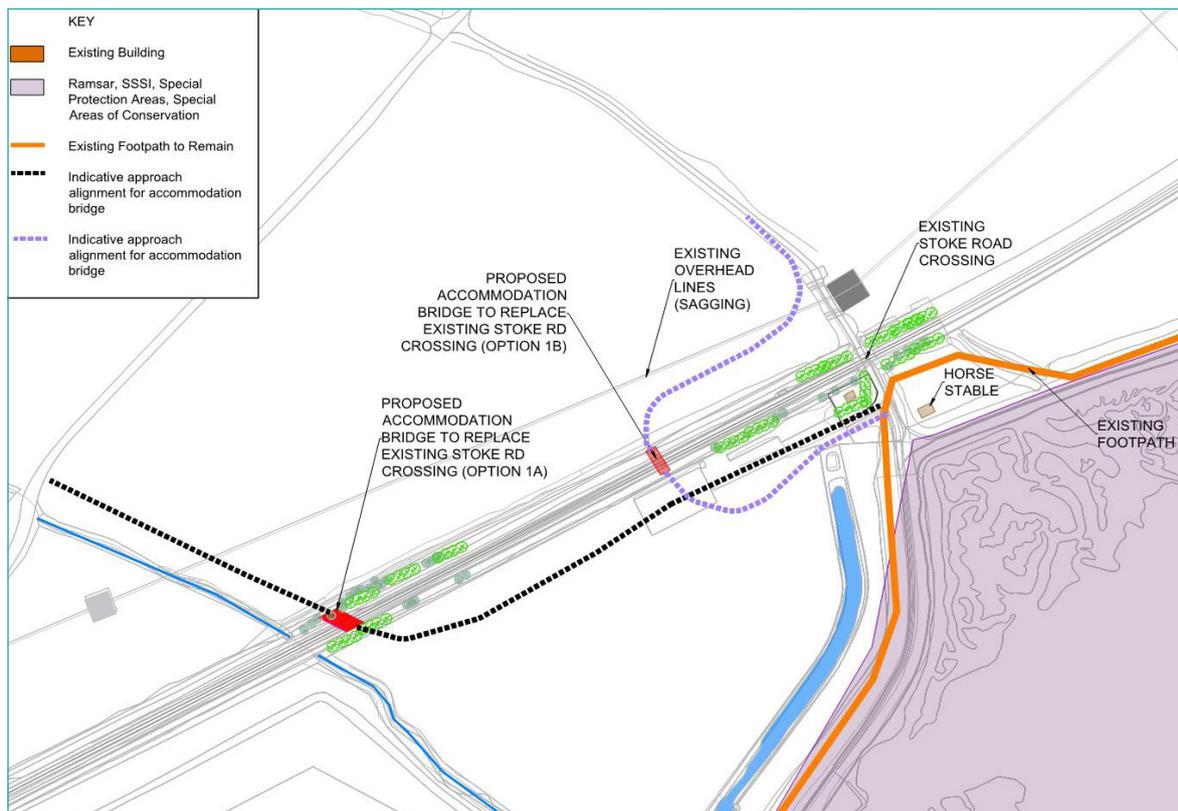
Construction of the new bridge is anticipated to take six months.

## Stoke Road Crossing

The existing private/farm track crossing currently lies approximately 275m east of Stoke Road.

A bridge crossing is required here because of the proximity of the new station, and the need to change existing signalling systems to facilitate the train movements that will serve the station. We are investigating other options which may eliminate the requirement for a new crossing at this location.

It is proposed to provide a new accommodation bridge to replace the level crossing. Due to the proximity of an electricity pylon on the north side of the railway, it is not possible to build the replacement structure on the current alignment of the private track. It is therefore proposed to locate the bridge to the southwest of the existing crossing. Option 1A forms a new junction with Stoke Road and follows the existing field boundary line, with a new track running parallel to the railway on the southern side of the embankment. Option 1B follows the existing alignment of the track up to the railway, with approach ramps to the bridge running parallel with the track to avoid the overhead power lines.



**Figure 29: Stoke Road Crossing**

Figure 29 shows two possible options for the bridge crossing either via the existing track or via a new approach road to the south. Both routes are constrained by the overhead lines to the north and the creek to the south.

Construction of the new bridge is expected to take approximately 12 months.

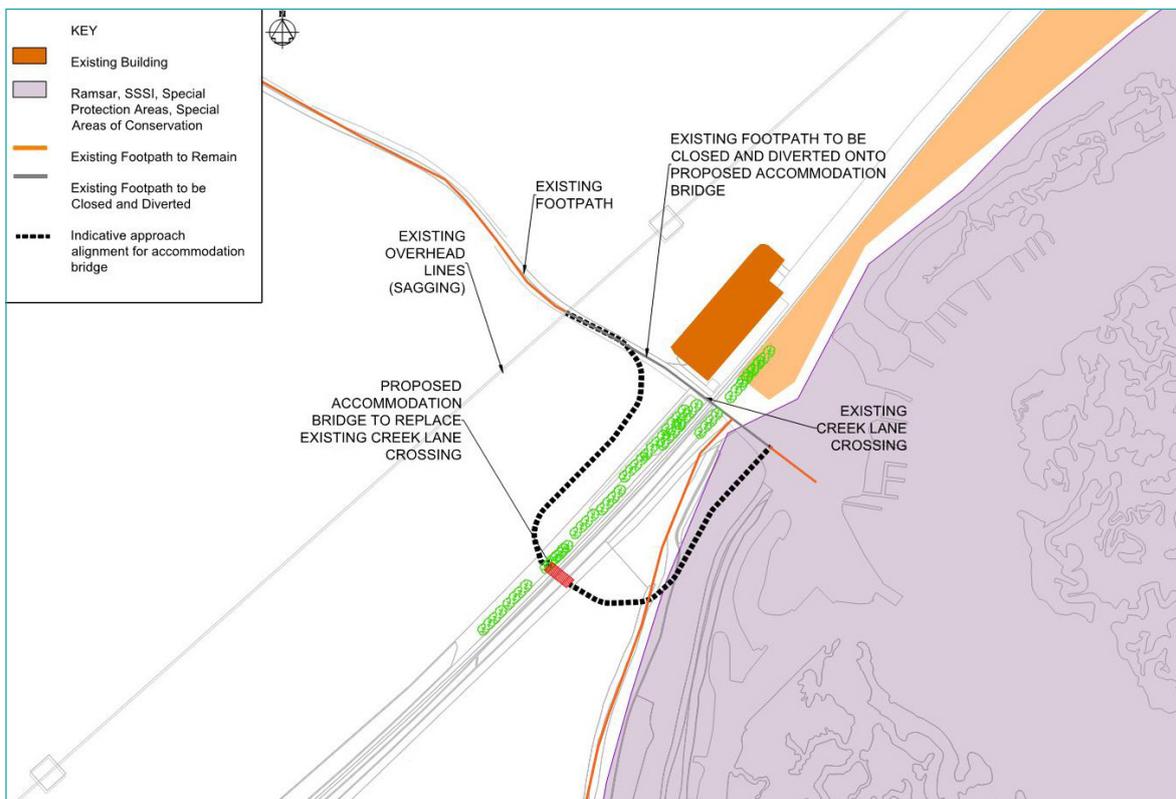
The requirement for this crossing is currently still under review.

## Creek Lane Crossing

The existing private/farm track and footpath crossing currently lies approximately 375m east of Stoke Road.

A bridge crossing is required here because of the proximity of the new station, and the need to change existing signalling systems to facilitate the train movements that will serve the station. We are investigating other technical options which may eliminate the requirement for a new crossing at this location.

It is proposed to provide a new accommodation bridge to replace the vehicle and pedestrian crossing. Due to the proximity of an electricity pylon and residential buildings on the north side of the railway, and the moorings on the south side, it is not possible to build the replacement structure on the current alignment of Creek Lane. It is therefore proposed to locate the bridge to the southwest of the existing crossing, with approach ramps to the bridge running parallel with the track to avoid the overhead power lines.



**Figure 30: Creek Lane Crossing**

Figure 30 shows the bridge crossing from the existing track or via a new approach road to the south. The approach to the bridge is constrained on the north side by the existing overhead lines and to the south by the existing creek.

Construction of the new bridge will take approximately 12 months.

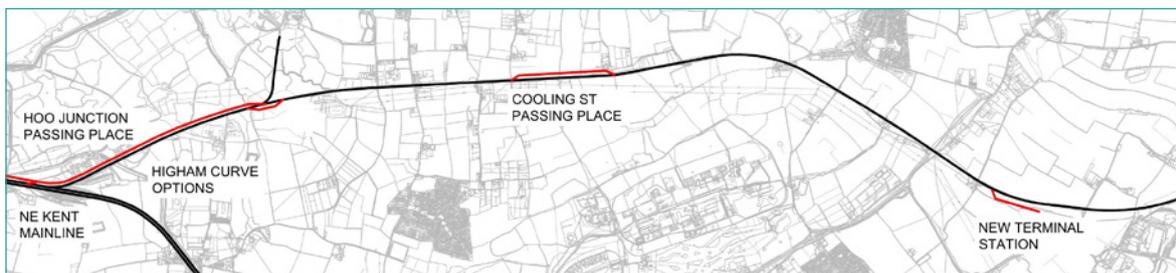
The requirement for this crossing is currently still under review.

## 2.3 Railway Passing Loops

### The proposed works

Key to the works on the line is to provide power for the trains. Several solutions have been considered including battery and hydrogen powered trains, but these have already been discounted due to their requirements for a new form of rollingstock. The proposed solution is therefore to extend the existing third rail electrification system onto the Grain Line.

To create a passenger service whilst maintaining the freight service, it is necessary to install new sections of dual track to allow trains to pass each other.



**Figure 31**

### Scheme overview

Figure 31 shows schematically the principal works on the line including dualling of the line at Hoo Junction and Cooling St, and a new terminal station east of Hoo.

To prevent disruption to the main line by the frequent passenger service an additional main line junction is also required.

The Grain Line was originally constructed with some dual track. The land within the existing railway corridor is therefore wide enough to allow for dualling of the track and associated enhancement of the track bed and embankments without the need to acquire adjoining land. All of the original railway structures were also constructed with dual track in mind, but some of these will need enhancement to bring a dual track into service.

## Hoo Junction to Cliffe

The section between Hoo Junction and Cliffe Junction is the most congested part of the branch line with interfaces to the main line at Hoo Junction and the private siding at Cliffe Junction.



**Figure 32: Hoo Junction to Cliffe Junction overview**

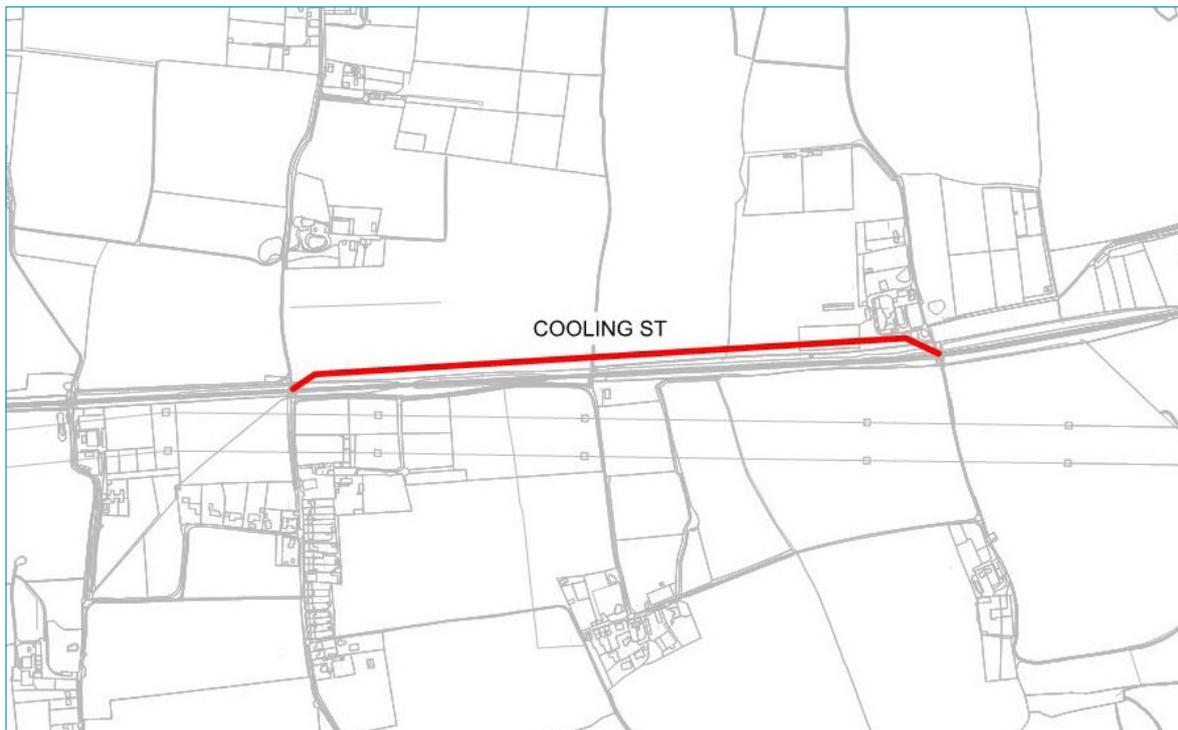
Figure 32 shows the dualling of the line from Hoo Junction to Cliffe Junction in schematic form showing the new line on the north side of the existing line except at Cliffe where the deviation is to the south

As noted above a section of dual track is required to enable incoming trains to clear the main line before they are brought to a halt. Because the line carries freight the required dual track runs as far as the canal road bridge.

To enable the freight services to continue to operate on the Cliffe branch, the line though to Cliffe also needs to be dualled. This will ensure the continued services from the quarry and keep HGV movements off the local roads.

To enable dual tracks to be installed the existing bridges will need to be improved to carry the tracks. These works will be carefully managed alongside the proposed works to level crossings to minimise agricultural and pedestrian disruption. The headroom under the bridges will not be reduced.

## Cooling St



**Figure 33: Passing loop at Cooling Street overview**

Figure 33 shows in schematic form the dualling of approximately 1000m of line on the north side of the existing line at Cooling Street to create a passing place for trains.

To enable a frequent service to Sharnal Street the passenger trains will need to pass the existing freight services from the Isle of Grain terminal. The site of the former station at Cooling Street has been identified as the most likely location for this loop.

The site has been chosen because east of the proposed location the track rises steeply, and it would be impractical to start or stop a laden freight train on the steep gradient.

There are two small bridges that need to be improved. Currently they are wide enough to carry twin tracks but as they have been unused for a number of years some work will be required to bring them up to current standards prior to bringing them back into service. The headroom beneath the bridges will not be altered.

## Construction

The track dualling will generally be undertaken from the existing line with materials obtained from Cliffe Junction and taken directly to site by road or rail.

Where the track bed needs to be widened locally sourced stone can be used and this would be brought in by rail.

The bridge improvements will need to be undertaken from off the track and may require small compounds at each bridge for local storage of materials and to provide site facilities.

It is expected that works to create the passing places will take six months to complete.

Construction traffic will be managed to limit the impact to local residents. It may be possible to the use of the existing freight line to bring in bulk materials.





## SEMS Proposals

### What SEMS is

SEMS stands for Strategic Environmental Management Scheme (SEMS).

### What SEMS involves

**Strategic** = The aspiration for SEMS is to see the realisation of a continuous network of connected and well managed spaces – for people and for wildlife. Each parcel will be designed to maximise its biodiversity and landscape value and opportunities for both new and improved footpaths.

**Environmental** = It is all about the environment and more specifically, biodiversity. SEMS will be informed by the findings of the Cumulative Ecological Impact Assessment which will inform the Local Plan and the road and rail proposal, the Natural Character Area study (undertaken by Natural England) and stakeholder expertise and input. Landscape plans will be developed for each of the SEMS parcels which will suggest areas for the planting of trees, scrub and hedges, and the creation of new ponds and wildflower meadows. Together these will contribute to Medway's emerging Green and Blue Infrastructure network and initiatives such as the establishment of Local Nature Restoration Networks and Pollinator Plans.

**Management** = The SEMS will be actively managed to maximise the benefits for biodiversity alongside access and health and safety interests. SEMS will be wardened by up to three rangers who will operate across the entire SEMS area. They will lead on long term community engagement and site management and monitoring.

**Scheme** = As a scheme, SEMS will be planned and designed to address the in-direct impact of possible growth on the peninsula's protected habitats. This

impact could include disturbance to wintering, roosting and breeding wetland birds, as indirect impacts on breeding nightingales in the SSSI habitats located at Lodge Hill and Northward Hill.

## Developing a draft vision for SEMS

SEMS will be supported by a vision to capture aspirations for landscape, biodiversity, access and long-term management and engagement. This consultation starts the process of defining a local vision that reflects the interests of current communities and path users. The vision will also be informed by the Hoo Development Framework Masterplan and the Hoo and the High Halstow Neighbourhood Plans.

To help thinking about the SEMS visions it is useful to look at the current concept proposal for the Cockham Community Parkland, which is an early part of the SEMS proposals. This has already been subject to consultation with residents of Hoo and other key stakeholders.

A draft vision that is under consideration for the SEMS (based on principles for Cockham Community Parkland) is as follows:

To deliver SEMS objectives through providing connected, new and accessible, public open spaces, which are accessed by local walkers and cyclists for their local journeys to the new train station, to community services, to schools, to work and to leisure services. The open spaces will complement other local initiatives such as Birdwise and the considerations of the High Halstow and the Hoo Neighbourhood Plans and the Local Plan. In northern areas, it will focus on open space and access that complements emerging development proposals and will have a strong focus on the management of land for nightingales. To the south it will be informed by coastal and estuary interests including the needs of wetland birds. Rather than a formal landscape, SEMS will deliver more of a rural landscape of meadows, woods and orchards. The new open spaces will provide recreation opportunities for informal play and picnicking. It will be managed by rangers and free to enter. A Green Bridge will be in place to aid safe access over the Peninsula Way

Figure 34 (below) shows photos of what the vision could look like in reality. This was developed for Cockham Community Parkland, which is part of the SEMS area and could start to be built on the ground from winter 2021/22.



**Figure 34**

Figure 34 is a diagram showing one central circle with the words Cockham Community Parkland. This is surrounded by eight other circles showing images of a meadow fields, people cycling, people walking, woodland, children playing, a group of people, a bush.

The SEMS vision will need to be supported by a set of what are called design principles. It is important to understand that SEMS is trying to create an accessible zone of open space that connects communities around Hoo and High Halstow; areas that will be great for wildlife and safe for walking and cycling.

This is very different to creating a single country park with its dedicated car park, toilet facilities and visitor centre. SEMS is about a landscape scale plan rather than one specific site. These principles, once developed, will be used to ensure that all of the SEMS areas share some common features.

Figure 35 sets out our ideas on how the new paths and fences built for SEMS could look, and how habitats will come forward.

## Vision and Principles - Key Design Principles

### Improve Access and Boundaries

- Provide definition to boundaries with fencing and natural barriers such as hedgerows.
- Link into surrounding rights of way (Saxon Shore Way).
- Facilitate access for the immediate community, encouraging walking and cycling but also providing parking spaces.
- Create an inclusive open space with pathways and gates suitable for use by a range of people including wheelchair users.
- Mark entrance points to give the sense of arrival.



### Habitats

- Semi-natural landscape with a range of habitat types.
- Enhancement and expansion of woodland with extensive tree planting.
- Protect key habitats - Cockham Wood SSSI.
- Create new hedgerows and pockets of woodland to promote ecological connectivity.
- Establish expanses of species rich neutral grassland or 'hay meadows'.
- Create zones to enhance habitat for targeted fauna and flora species.
- Community orchard.



**Figure 35**

The designs for the Cockham Community Parkland are currently at a more advanced stage. The principles informing the landscape design of Cockham Community Parkland, as set out below, could be applicable to all SEMS sites.

## Passive recreation

- Create walking routes for all, with space for dog walkers to roam free.
- Provide a range of circular walks to suit different abilities, linking back to key arrival points. At least one 2.5km walk.
- Encourage cycling including potentially creating more demanding off-road routes.



## Facilities

- Create places for picnicking with tables and benches.
- Places for children to play through natural play facilities.
- Fitness trails blending with the natural landscape.
- Toilet facilities.



**Figure 36**

The key objectives for Cockham Community Parkland are to:

- 1 Create a substantial public open space of approximately 50 hectares.
- 2 Showcase the peninsula's landscapes.
- 3 Celebrate nature through nurturing existing habitats and creating new ones.
- 4 Provide users with an opportunity to further enjoy views across the River Medway.
- 5 Educate visitors about the importance of the estuary and the need to protect it.
- 6 Provide appropriate visitor facilities including extensive space for passive recreation including space for picnics, play and woodland trails.
- 7 Create a network of safe and attractive routes for dog walkers, walkers and cyclists.
- 8 Design in flexibility for additional visitor facilities to be added in the future such as a local visitor centre.

## **SEMS and how it links to the Local Plan**

The SEMS scheme will contribute to our thinking on how future possible development on the peninsula could avoid, mitigate and compensate for its impact on the area's protected species and habitats.

It is noted also that the HIF road and rail infrastructures will both potentially impact on local ecology. The SEMS is an opportunity to address these impacts in a planned and coordinated approach. The rail and road schemes will be subject to an Environmental Impact Assessment to better understand the role that SEMS could play in mitigating those impacts.

It is important not to confuse SEMS with the delivery of formal outdoor sports and open space (e.g. parks, gardens, amenity, play, allotments and outdoor sport) as associated with any housing applications that may be brought forward on the peninsula. These open spaces are to be designed and delivered when development comes forward. Therefore, the interface between SEMS and any residential development open space provision will need considering to ensure they work together, that paths connect, and the spaces make sense.

## **When SEMS will be available for you to enjoy**

There is still much work to do to plan SEMS. We have thoughts on where the SEMS is required and also the key wildlife habitats to be created but there is still much scope for stakeholder and landowner engagement in the development of the scheme.

As certainty grows, more detailed masterplans will be developed for the SEMS areas to show access routes, parking and landscape and habitat works and planning applications will be brought forward for them. This work will be developed over the next two years. The exception to this is the Cockham Community Parkland area of SEMS which has already been designed, subject to consultation, will be seeking planning permission in early 2021 with a view to starting work on the ground in winter 2021/22. All of the SEMS works will be completed by early 2024.

## How any new recreational paths could be delivered

SEMS is keen to enhance and broaden the existing framework of recreational routes and Public Rights of Way (PROW) across the peninsula. We will be asking for input from community and user groups, in addition to stakeholders, to help us define the location and nature of new access routes, including opportunities for multi-user paths.

### New access routes for walking and cycling:

SEMS is keen to deliver a new network of paths and cycle ways connecting residents to new and existing open spaces, and where appropriate to schools and other community facilities.

All new access routes delivered through the SEMS programme will be established initially as Permissive Routes rather than be fully adopted as dedicated rights of way. The reason for this is because we feel it is important to test the new access routes (i.e. are they in the right location) prior to establishing them as dedicated rights of way. Once established as dedicated paths then it is a much more complicated process to change their route.

We welcome input from path users and local stakeholders on the location, nature and surfacing of the new access routes. The Local Access Forum will be engaged in developing thinking about new routes.

Unlike the road and rail components of the HIF scheme, the majority of the SEMS components remain in the earlier stages of design and development. The design for the remaining phases of SEMS will be led by a SEMS Manager, who with input from this and other consultations and through working with landowners will complete the design of SEMS.





## 6 MANAGING ENVIRONMENTAL IMPACTS

### Approach

Environmental considerations will underpin the design of each of the proposals. Opportunities to avoid environmental impacts are being explored and, wherever possible, options for embedding mitigation within our designs are being maximised

Environmental Impact Assessments (EIA) will be undertaken for the rail works and the highways works to assess the potential for significant environmental impacts to arise as a result of the proposed improvements. Each assessment will take account of the cumulative effects of the other project and other proposed developments. This EIA work will be informed by transport assessments which will consider the effects of the railway and highway works on the peninsula's transport network.

A Habitat Regulations Assessments (HRA) will also be undertaken to assess the potential impacts of the proposed highway and rail improvements to impact upon protected European sites, including Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites. These European sites are protected under the Conservation of Habitats and Species Regulations 2017 and the HRA will assess the potential for the scheme to impact upon the integrity and conservation status of these sites.

The planning applications for the SEMS proposals will also be accompanied by environmental information about the likely impacts of the scheme.

Where the potential for significant environmental impacts is identified through the EIA and HRA processes, the assessments will identify measures to avoid or mitigate those impacts.

We will engage with statutory and non-statutory environmental groups in respect of assessment methodology used in these assessments and the development of mitigation measures.

## Construction

The proposed highway and rail improvements have the potential to result in environmental impacts during the construction phase. Construction phase mitigation requirements will be identified through the EIA process and these will be captured within Construction Environmental Management Plans (CEMP).

The CEMP will describe the measures that will be taken during the construction phase and explain how this will be coordinated across the different interventions. The CEMP will provide details of the legislation and standards that construction activities will comply with and draw together the mitigation measures identified during the EIA process.

## Designated sites

The Hoo Junction to Cliffe section of the railway track runs adjacent to a number of designated sites of importance to nature conservation including the South Thames Estuary and Marshes Site of Special Scientific Interest (SSSI), the Thames Estuary and Marshes Ramsar, and the Thames Estuary and Marshes Special Protection Areas (SPA). Potential impacts from constructing the passing loop in this location include disturbance to wintering bird species.

Steps will be taken to minimise impacts to these sites and will include landscape planting and careful timings of works to reduce construction disturbance to bird species.

## Habitats

The ecological surveys have identified that some habitats including trees, woodland, improved grassland, arable land, marshy grassland, scrub and hawthorn hedgerow will need to be removed. Wherever possible, these impacts will be kept within the current railway corridor and provisions for habitat replacement and enhancement will be included within the scheme Landscape Plan.

The Application Site is overlapped by Chattenden Woods and Lodge Hill Site of Special Scientific Interest (SSSI). Chattenden Woods and Lodge Hill SSSI comprises a mosaic of habitats, including ancient and other long-established semi-natural woodland, scrub, and natural grassland.

The existing roads of Woodfield Way (Phase 1), Upchat Road (Phase 1/2) and Longchat Road (Phase 1) bisect the SSSI at its narrowest point between Chattenden (to the south) and Great Chattenden Woods and Cliffe Woods (to the north). No improvement works are currently planned outside of the existing highway boundary and there will be no substantive works to Woodfield Way (Phase 1) within the vicinity of the SSSI area.

Tower Hill to Cockham Wood SSSI is also located approximately 0.4km to the south of Four Elms Hill (within Phase 2 of the project). This SSSI has been designated because it is of both biological and geological interest, containing woodland representative of that on tertiary deposits in Kent and supports a rich insect fauna.

No removal of trees from these SSSI or ancient woodland is currently anticipated. Nevertheless, there is the potential for indirect impacts to the habitat within the Chattenden Woods and Lodge Hill SSSI, as a result of the proposed scheme. We will work closely with Natural England to understand the potential for disturbance and noise impacts to the nationally important nightingale population and other habitats and species, and to ensure that appropriate mitigation measures are put in place.

Other statutory designations for nature conservation within the wider area include:

- Dalham Farm SSSI – approximately 1.4km north-west of Phase 4;
- Medway Estuary and Marshes SSSI, Special Protection Area (SPA) and Ramsar Site – approximately 1.2km to the south of Phase 2 and 1.5km to the south of Phase 4;
- Northward Hill National Nature Reserve (NNR)– approximately 1.6km north-west of Phase 4;
- Medway Estuary Marine Conservation Zone (MCZ) – approximately 650m to the south of Phase 2;
- Northward Hill (RSPB Reserve) – approximately 1.5km to the north-west of Phase 4; and
- North Kent Marshes Environmentally Sensitive Area – approximately 1.7km to the north of Phase 4.

Given their distance, the potential impacts upon these designations are currently thought to be unlikely, although this will be confirmed through ecological assessment work.

We have carried out several surveys to determine which protected animal species could be affected by the scheme. The presence of badgers, bats, great crested newts, nesting and wintering birds, reptiles and water voles have been identified within the scheme extents.

Additional/updated surveys to establish the numbers of protected animal species will be carried out prior to the start of construction, so arrangements/mitigations can be made to find new habitats for them so that they are not affected by the work.

A precautionary approach to any vegetation clearance in respect to breeding birds, hazel dormice, bats, and badgers will be implemented to minimise any adverse impacts on these species' groups.

## Protected species

Protected species surveys have identified the presence of badgers, bats, great crested newts, nesting and wintering birds, reptiles and water voles within the scheme footprint.

Badgers are active along much of the existing track and have been identified using the embankments for foraging and building their setts. Construction methods will be put in place to ensure no harm is caused to badgers and further impacts, where identified, will be outlined following finalised design plans.

Construction lighting and additional lighting from the new station has the potential to impact on light sensitive bat species. Steps to minimise these impacts will include careful use of lighting and landscape planting to maintain or create flight lines for foraging bats. Enhancement for bats will be included within the new station such as landscape planting to reduce light spill and integrated bat boxes.

Great crested newts have been identified within ponds close to both sets of passing loops and the proposed curve. The project will work closely with Natural England to obtain a District Level Licence to reduce impacts and provide landscape level mitigation for this protected species.

Nesting bird impacts will be avoided through careful timing of vegetation clearance and the installation of temporary bird boxes during the construction phase, along with permanent features to provide enhancement for nesting birds such as native landscape planting and bird boxes.

Reptile species including grass snake and common lizard have been recorded nearby to both passing loop locations and the proposed curve and therefore steps will be taken during construction to avoid impacts to these species.

Water voles have been identified in the wet ditches within the site boundary. Steps to ensure that disturbance is minimised will be outlined within the Construction Environmental Management Plan which will be produced for entire scheme.

## Air quality and noise

The proposed highway and rail improvements have the potential to result in changes in air quality, noise and vibration. As part of the EIA, the design team will investigate the potential for this to result in adverse effects upon human health and upon sensitive habitats, designated sites and protected species within close proximity to the scheme.

The EIA process will assess the potential for temporary changes as a result of planned construction activities and the need for mitigation. This includes the generation of construction dust, increases in vehicle emissions from construction machinery, the potential for increases in noise and vibration from construction activities, such as excavation and piling.

The EIA process will also consider the potential for the planned infrastructure improvements to result in changes to air quality, noise and vibration once they are in operation. This will include impacts associated with changes in the volumes, speed and distribution of rail and highways traffic.

## Climate change

The EIA will include an assessment of climate change impacts resulting from the proposed highway and rail improvements. This assessment will include a Greenhouse Gas Assessment which will consider the emission of greenhouse gases emissions from the construction and operation of the schemes. As noted above, this will include an appropriate level of cumulative assessment.

The EIA will also include a Climate Resilience Assessment, which will consider the resilience of the proposed infrastructure improvements in line with future climatic conditions, including changes in wind, precipitation, temperature, sea levels and soil composition.

## Landscape and visual effects

Through the EIA process we will consider the Landscape and Visual Effects of the proposed highway and rail improvements. This will include temporary effects that could be experienced during the construction phase and changes that could be experienced during the operation phase of the scheme.

The assessment will consider change to land use, along with the potential for the loss of landscape features that could impact upon the landscape character and could result in adverse effects upon visual receptors, including local residents public rights of way, public open spaces, recreational areas and commercial properties.

## Historic environment

The EIA will consider the potential for the proposed highway and rail improvements to result in the impacts upon known heritage assets during both the construction and operation, including scheduled ancient monuments, listed buildings, non-designated assets and historic landscapes. The assessment will consider the potential for direct effects upon these assets as well as the potential for adverse impacts upon their setting.

The EIA will also consider the disturbance or loss of unknown below-ground archaeological remains.

## Water environment

The EIA will consider the construction and operational impacts of the proposed infrastructure improvements upon surface waters and ground water resources. Parts of the scheme are located within areas susceptible to flooding, therefore a flood risk assessment will be undertaken to inform the scheme design.

## Population and health

The proposed rail and highway infrastructure improvements are located in both urban and rural settings.

The EIA will evaluate the potential for the proposed infrastructure improvements to impact upon land use, private assets, local services, non-motorised users and whether they would result in changes to driver stress, community severance and public transport, during both the construction and operation phases.

## Contaminated land

Environmental assessments will assess the potential for the proposed scheme to result in potential pathways whereby contaminants/pollutants could have an impact on sensitive receptors, such as:

- human beings
- watercourses
- aquifers
- designated and non-designated sites, such as Canal and Grazing Marsh, Higham LWS and London Area Greenbelt land, amongst others
- aquatic habitats, including those associated with the Thames Estuary and Marshes Ramsar Site and SPA, and South Thames Estuary and Marshes SSSI
- terrestrial habitats and protected species.

This includes potential impacts associated with former asbestos works that are known to exist within/adjacent to the proposed scheme footprint.





## 7 Property and landowners

Medway will need to acquire land and rights from private landowners that is required for the project.

Land will also be required for surveys, construction works, including drainage, mitigation, access, maintenance access, utilities diversions and temporary compounds. Where possible and where the land is required only for a temporary use, we will seek to return land to the original landowners.

- Overall approach - we are keen to understand the impact of the scheme on land to ensure effects can be minimised if possible.

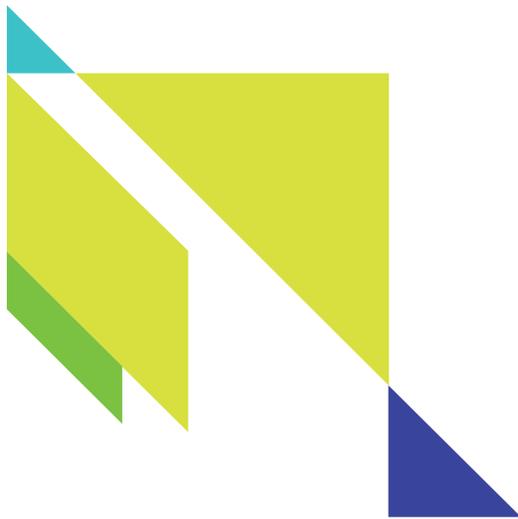
We will engage with landowners at the earliest opportunity to understand the impact of our proposals and work together to help minimise these impacts. We will be transparent and open with affected landowners to enable as smooth a process as possible.

- Encourage land interests to engage with the council's appointed land agents BNP Paribas.

It is our objective to seek to acquire these plots by negotiation and work with landowners to ensure any impact on property and land is minimised, however compulsory acquisition powers will be sought to ensure the proposals are able to be delivered, if voluntary agreements are not possible.

BNP Paribas are acting on behalf of the council to acquire land interests required for the scheme.

If you have any queries, please contact Grace Hicks BSc (Hons) MRICS FAAV on 07920 813286 or Alice Stephens BSc (Hons) on 07557 16681.





## 8 GET INVOLVED

- We would like to hear your views on the proposals and this important opportunity for Hoo.
- To find out more visit: [medway.gov.uk/futurehoo](https://medway.gov.uk/futurehoo) or email: [futurehoo@medway.gov.uk](mailto:futurehoo@medway.gov.uk)
- We will publish the results of this initial engagement process spring 2021. As the schemes move forward through their specific planning procedures there will be more opportunities to be involved and provide your feedback.