

Animex Wildlife Bridge[®]
BEST PRACTICE GUIDELINES

In association with:

people's
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endangered
species

www.ptes.org

The **Animex Wildlife Bridge®** provides a tried and tested method of permanently connecting/reconnecting fragmented dormouse habitat. The bridge can be installed either as a standalone structure, or retrofitted to an existing structure such as a road bridge/gantry or through an underpass/culvert. However, suitable positioning is key to its success on any project – if it is not installed in the correct location it will have limited, if any, value.

The following best practice guidelines will ensure optimal bridge positioning when retrofitting the dormouse bridge to an existing structure.

Please note, however, that every site is different and therefore this guidance should be considered generic; please contact us should you require site-specific advice. The following information does not provide extensive details of habitat creation and management for dormice – existing best practice guidelines should also be consulted (please refer to the Dormouse Conservation Handbook (Bright *et al.*, 2006)).

Positioning is Key!

- Assess your Phase II Survey data – does this indicate the presence of any dormouse population hotspots?
- If retrofitting the wildlife bridge to an existing/new structure over a highway, the most suitable location is under the parapet, as this will reduce disturbance via headlights.
- Consider the scheme within a wider landscape context – are there obvious routes of habitat connectivity both within the site and into the wider landscape?
- Aim to position both ends of the bridge in optimal habitat. Can the dormouse habitat on both sides of the bridge be further enhanced within the landscape strategy?
- Aim to ‘funnel’ dormice to the bridge: can the arboreal habitat connectivity throughout the habitat network (including but not limited to either end of the bridge) be enhanced within the landscape strategy?
- The wildlife bridge must extend into the surrounding dormouse habitat at each end of the structure it is retrofitted to. Positioning this ‘connection’ element at least 2 metres into the vegetation, and at an angle, will allow dormice suitable access points at different heights within the vegetation.
- Ensure the connecting ends of the wildlife bridge do not exceed the height of vegetation – if the vegetation is too low and the wildlife bridge height cannot be reduced, include planting of taller vegetation adjacent to the bridge, then gradually grade this down to the height of the surrounding vegetation.

- Can management of the surrounding vegetation be altered to increase its suitability for dormice? For example, if management is currently undertaken on an annual basis can this be reduced to every four years to promote a denser structure and increase fruit/nut production?
- Include dense planting at the base of each leg / bridge end - existing vegetation will need to be reduced to allow the bridge to be installed, so this will need to be replaced with mature and/or quick-growing specimens as soon as installation is complete. Spiky vegetation such as Hawthorn will dissuade public access to the bridge.
- Make sure the bridge is sited away from streetlights to ensure a dark crossing point.

Dormouse Boxes

Install wooden dormouse boxes within the habitat both sides of the bridge to encourage dormice to the bridge and to allow for future population monitoring. Required numbers are as follows:

- Bridges up to 30 metres in length: 25 boxes either side of the bridge;
- Bridges exceeding 30 metres in length: 50 boxes either side.

Space boxes 15-20 metres apart, within suitable habitat.

This is a standard monitoring setup for the National Dormouse Monitoring Programme (NDMP) meaning that when your data is submitted to the People's Trust for Endangered Species (PTES) as part of your license return (see our accompanying best practice, '*Post-installation Monitoring and Management*') it will be comparable with over 400 NDMP sites in England and Wales.

*We supply wooden dormouse boxes at a discounted rate when purchased with the **Animex Wildlife Bridge**[®]*

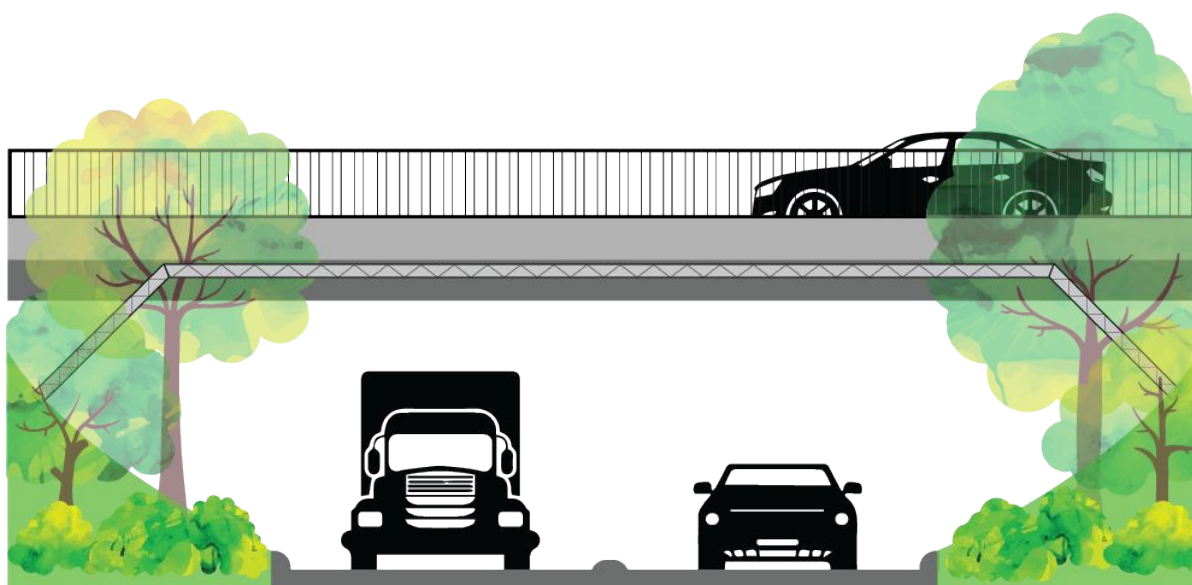


Figure 1. Illustration of the **Animex Wildlife Bridge**[®] retrofitted to the parapet of a road bridge.

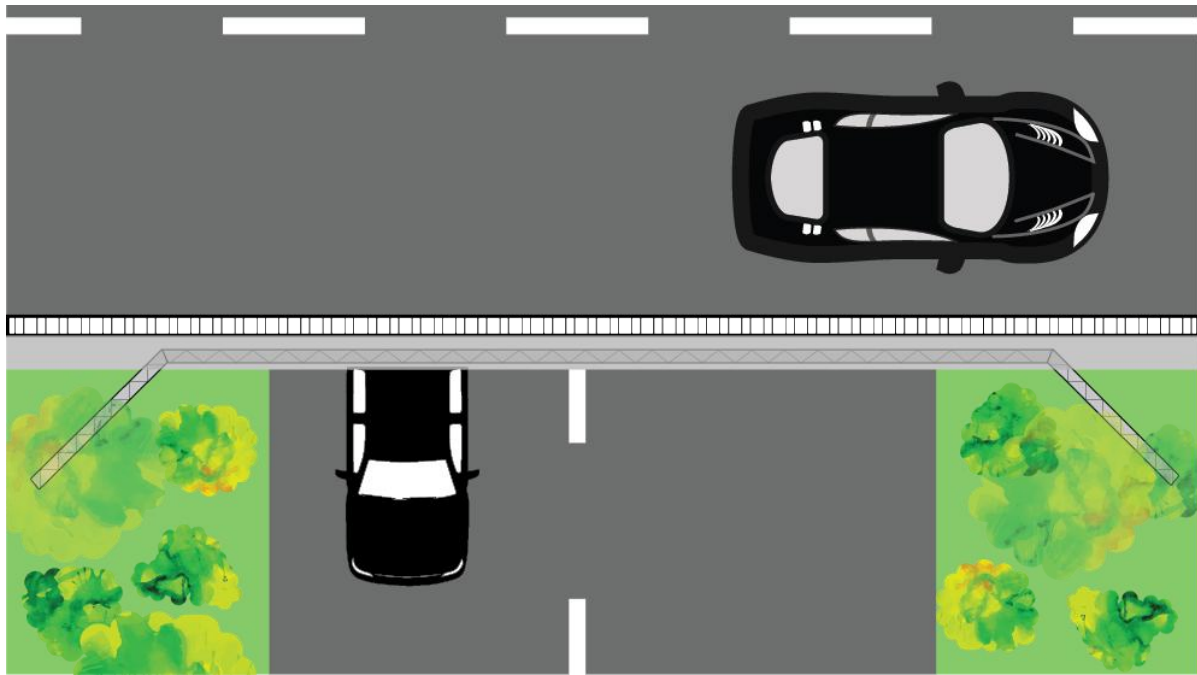


Figure 2. Aerial view of the *Animex Wildlife Bridge*[®] extending into optimal habitat from parapet.

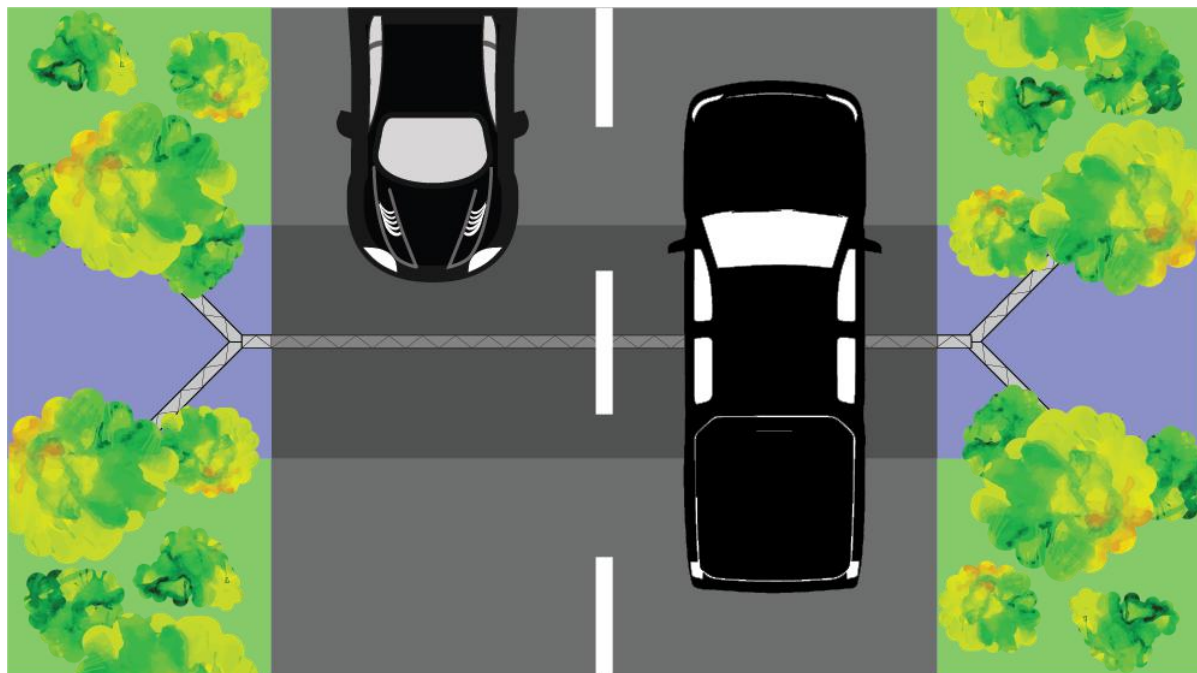


Figure 3. View of the retrofitted *Animex Wildlife Bridge*[®] extending into optimal habitat from culvert.

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- Aim to ‘funnel’ dormice to the bridge: can the arboreal habitat connectivity throughout the habitat network (including but not limited to either end of the bridge) be enhanced within the landscape strategy?
- Each leg of the bridge must sit a minimum of 2 metres into suitable dormouse habitat (preferably more). Only the horizontal element of the bridge should sit outside the vegetation; the diagonal and vertical sections (the legs) should sit within the vegetation to allow dormice suitable access points at different heights.
- Ensure the bridge height does not exceed the height of vegetation at either end – if the vegetation is too low and the bridge height cannot be reduced, include planting of taller vegetation adjacent to the bridge, then gradually grade this down to the height of the surrounding vegetation.
- Can management of the surrounding vegetation be altered to increase its suitability for dormice? For example, if management is currently undertaken on an annual basis can this be reduced to every four years to promote a denser structure and increase fruit/nut production?

- Include dense planting at the base of each leg - existing vegetation will need to be reduced to allow the bridge to be installed, so this will need to be replaced with mature and/or quick-growing specimens as soon as installation is complete. Spiky vegetation such as Hawthorn will dissuade public access to the bridge.
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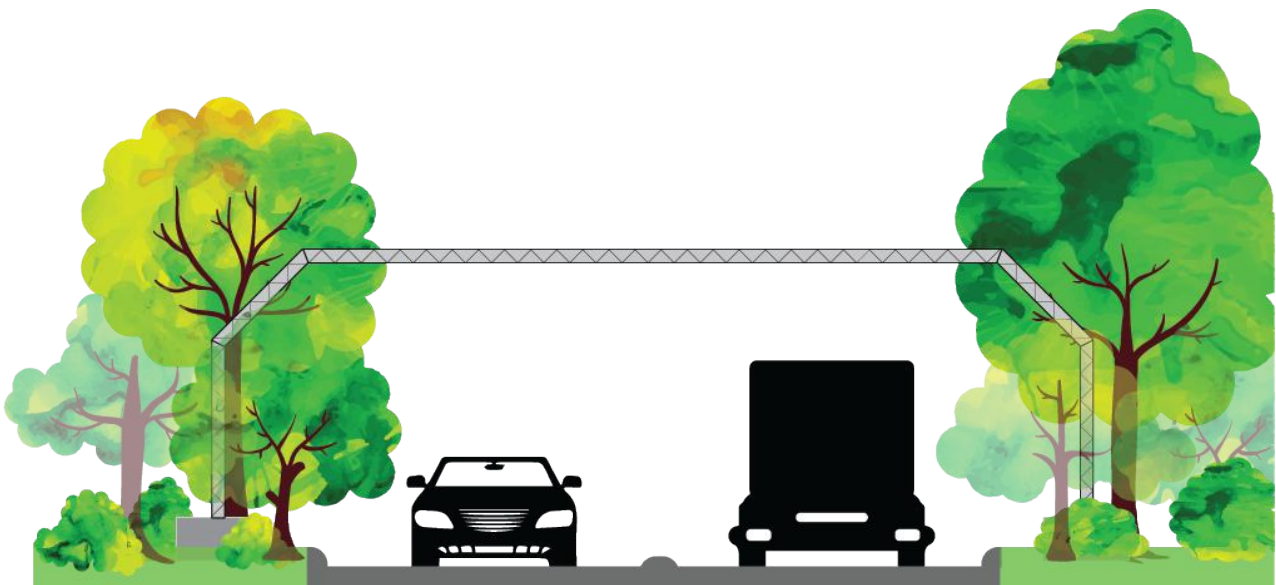


Figure 1. Artistic impression of the **Animex Wildlife Bridge**[®] installed in optimal habitat over a road.

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The **Animex Wildlife Bridge®** provides a tried and tested method of connecting fragmented dormouse habitat. Long-term population monitoring and a reactive landscape management scheme are, however, key to maintaining the optimal value of the bridge in the future. Please note that every site is different and therefore this guidance should be considered generic; please contact us should you require site-specific advice.

Population Monitoring

Implement a programme of post-installation population monitoring once the bridge has been installed. This will determine whether the dormouse population remains present within the habitat network adjacent to the bridge.

The **Animex Wildlife Bridge®** is tried and tested – our trial illustrated that if dormice can find the bridge they are happy to use it. By adhering to our best practice guidelines associated with the positioning of your **Animex Wildlife Bridge®**, the bridge will be installed in optimal and connected habitat, but the habitat quality needs to remain high to ensure continued use in the long-term. Populations are best monitored by checking the wooden dormouse boxes introduced to the site during the bridge installation.

Population monitoring must be undertaken by a suitably licenced Ecologist

The more information the better: population monitoring should be undertaken as often as possible and for as long as possible, but as a minimum, monitoring visits should be undertaken twice per year for at least six years. Monitoring visits should be undertaken in May/June and September/October (as a minimum) throughout the lifetime of the monitoring scheme.

If dormouse numbers decrease or the species appears to have become entirely absent on one or both sides of the bridge, this may highlight that habitat quality and/or connectivity has decreased. The habitat management scheme must then be updated to ensure the continuation of optimal dormouse habitat either side of the bridge (see below).

In order to assess the future success of mitigation strategies it is important to link the original Phase II Survey data with the mitigation report and future monitoring data with the site. Licence return data is collected by the People's Trust for Endangered Species (PTES): please use the same six figure site centroid grid reference for all data associated with the site. Please submit your monitoring data to PTES: <https://ptes.org/get-involved/surveys/countryside-2/survey-hazel-dormice/>

A Note on Motion-activated Cameras for Monitoring the Bridge...

The use of motion-activated cameras to monitor bridge usage/success is not considered an accurate method. Firstly, this is an extremely labour-intensive method and is therefore not likely to be a feasible option. Further, however, and more importantly, the use of camera traps on the bridge often provides false negatives and therefore is not an accurate monitoring technique. Dormice often move too fast to trigger the cameras in time to appear in the subsequent video clip, thereby producing what appears to be a 'false trigger', when in fact a dormouse has been present. In addition, due to the low population densities and small home ranges of dormice, it may take a number of years for the bridge to be utilised by individuals; this could exceed the 6-year minimum monitoring duration. This does not mean that the bridge will not be effective and does not reduce the value of the bridge.

Habitat Management

Include a long-term landscape management scheme in the proposals, and make sure this is suitably secured through the planning process and/or European Protected Species Mitigation Licence.

Alongside generic advice relating to dormouse conservation (please refer to the Dormouse Conservation Handbook (Bright *et al.*, 2006), include the following bridge-specific elements:

- Ensure dormice can continue to find the bridge: the management scheme must maintain optimal dormouse habitat adjacent to the bridge, as well as arboreal habitat connectivity on site and with the wider landscape.
- Ensure dormice can continue to access the bridge: both ends of the bridge must remain suitably connected to surrounding vegetation.
- Ensure the management plan is reactive to the results of the population monitoring – if dormouse numbers start falling this suggests a decrease in habitat quality and/or habitat connectivity either adjacent to the bridge or within the wider landscape.
- Where new planting is proposed, allow for replacement planting to cover any failures – this will ensure continued habitat connectivity to the bridge.
- Although not advised, vegetation may require clearance at the legs of the bridge on occasion to allow structural maintenance checks to be undertaken. Ensure you cover this in the mitigation strategy. Vegetation clearance should be kept to the minimum possible to achieve the required outcome and supervised by a suitably licensed Ecologist. Provision should be secured for immediate and suitably robust replacement planting.

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