COPPERHOUSE TIDAL GATE OPERATIONAL IMPROVEMENTS

Preliminary Roost Assessment (PRA)

Introduction

Purpose of this report

This report presents the findings of a preliminary bat roost assessment (PRA) of a kiosk and surrounding structures that was carried out in relation to the proposed Copperhouse Tidal Gate Operational Improvements project at Copperhouse Pool in Hayle, Cornwall. The structures that constitute the survey are the kiosk (located at National Grid Reference (NGR): SW55793764), the adjacent winch housing (located at NGR: SW55803764), a redundant bridge control building (located at NGR: SW55803762) and the adjacent pedestrian bridge (located at NGR: SW55813764).

This report considers whether the proposed works may have any detrimental effects on potential bat roosts in these structures, and if further action is required.

Proposed Works

The works are small-scale and anticipated to take approximately three weeks to complete construction. Works are currently programmed for between February and April 2024.

The proposed works are shown in Appendix A and are described below:

1. Replacement of existing kiosk – this will require extending the existing concrete slab slightly involving minor excavations with a mini digger. The old kiosk will be lifted out with a HIAB and the new one lifted in place in the same location as existing and bolted down.
2. Replacement of existing winch housing – this will be lifted off by mini digger and replaced in the same position as existing.
3. Replacement of manhole cover – this will require mini digger excavation and some concreting of the new cover in place.
4. Extension of operational boundary fence line – this will require excavating 600mm by 600mm by 600mm holes with the mini digger to fix the posts.
5. Installation of 3No. collapsible bollards – likely 600mm by 600mm by 600mm holes dug for concrete footing for bollards.

There will be no direct works to the redundant bridge control building or adjacent pedestrian bridge, though the fencing extension will be erected directly adjacent to the redundant bridge control building.

It is understood there will be no new external lighting as a result of the proposals.

Methodology

The preliminary bat roost assessment (PRA) was undertaken of the kiosk and surrounding structures on the 18th October 2023. The survey was carried out by Amy Roberts BSc (Hons) MCIEEM, who is a registered user of the Natural England Level 2 bat class survey licence (ref: 2017-31382-CLS-CLS). The PRA involved a detailed inspection of the exterior of the kiosk, winch structure, redundant bridge control building and adjacent pedestrian footbridge from ground-level, to assess the suitability of the structures for roosting bats. The PRA did not include internal inspections of the structures due to access constraints. During the survey, potential roost locations and roost access points were noted,

and any evidence of bats using these features was searched for where possible. The surveyor performed the survey using binoculars and a high-powered torch from ground level. Where there were any low-level features, these were inspected with an endoscope and/or torch. The suitability of the structures was then categorised (see Table 1).

The weather during the survey was overcast with a heavy rain shower, moderate winds and a temperature of 18°C.

The survey methodologies presented within this document were undertaken in line with the Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition (Collins, 2016) with consideration given to recently released updated guidance; Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th Edition (Collins, 2023) where appropriate during composition of the survey report.

Table 1: Classification criteria for bat roosting suitability of buildings (adapted from Collins, 2023).

Potential Suitability	Roosting Habitats in structures
None	No habitat features on site likely to be used by any roosting bats at any time of year (i.e. a complete absence of crevices / suitable shelter).
Negligible	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site but could be used by individual hibernating bats).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost type of high conservation status.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat. These structures have the potential to support high conservation status roosts.

Constraints and Limitations

There were some heavy rain showers prior to and during the PRA, which may have washed away potential field signs of bats on the exterior of the structures, such as droppings.

There was no access to the inside of structures or the underside of the bridge at the time of the survey.

Results

The habitat features in the vicinity of the proposed works constitute an estuary to the north and an urban environment to the south with a mix of residential and industrial buildings. There are small, fragmented patches of woodland in the locality but the immediate vicinity is open and exposed. The

surrounding habitat is considered to be of moderate suitability for bats due to the estuary linking the site to the wider rural landscape.

The kiosk that is due to be removed is a prefabricated, reinforced plastic unit, completely sealed with a small overhang at roof level around the entirety of the building. There is a vent at both the north and south ends with a plastic grid behind. The kiosk is not considered to offer potential roosting habitat for bats and has therefore been categorised as having negligible suitability.

The winch housing that is due to be replaced is a completely sealed metal container less than 2m in height and has no suitability for roosting bats. This structure has therefore not been considered further in this report.

The redundant bridge control structure is a brick building with a slate pitched roof and wooden shutters / door. This building will not be directly affected by the works, but the security fencing extension will extend adjacent to this building. The building is located adjacent to a car park and road with street lighting to the south. The brick work and roof are generally in good condition. There are two slightly lifted tiles on the north-eastern roof face which could offer roosting habitat for bats. On the south-eastern face of the building there was evidence of vandalism to the door, with litter present inside. The damaged door could provide an entrance point for bats into the structure. There is a reasonable amount of ivy growth on the north-western face and there is a possibility this is obscuring a PRF on this building side, though the ivy would be making access very cluttered at present. The ivy itself was quite immature and unlikely to be utilised as a PRF in its own right. The timber fascia board on the south-western face has a slight gap behind it in two places, offering some potential roosting opportunity for bats. Because of restricted access to the inside of the building and based on the potential roosting features seen on the outside of the building, this structure is considered to have moderate suitability for roosting bats as a whole.

The adjacent pedestrian bridge is a metal sided structure on stone abutments. It will not be directly affected by the proposal. Due to access constraints, it was not possible to fully inspect around and underneath the pedestrian bridge and as such, this structure has been assigned high suitability for roosting bats as a precaution in the absence of survey data.

No signs of bat related activity (bat droppings, feeding remains, urine stains etc.) were observed during the survey.

Photographs of the surveyed structures are provided in Appendix B.

Discussion and Recommendations

There is not expected to be any damage/destruction of a roost and no killing/injuring of bats. Potential for roosting bats was only identified in the redundant bridge control structure and the pedestrian bridge. Neither of these structures will be directly impacted by the proposals. Given the short duration and low noise / vibration activities that will be undertaken on site, it is considered highly unlikely that the nature of these works would result in disturbance of bats potentially roosting in either of these structures during construction.

New operational fence lines are not considered to block access to any potential roosting features on the redundant bridge control structure on the north-eastern, south-eastern and south-western

faces. On the north-western face, where ivy coverage is present there is low potential for the new fencing to obscure access to a PRF as it is directly adjacent to the building (see Appendix A), though the ivy coverage would be making access very cluttered at present.

There are no high noise or vibration activities to be undertaken as part of the works and as such, it is deemed the works can proceed at this time without further survey. The following recommendations are made to ensure an offence in relation to roosting bats is highly unlikely to be committed:

- The scheme ecologist should be kept up-to-date with details of the works and in particular, notified if working methodologies change to involve any higher noise or vibration related activities. The scheme ecologist can then re-assess the potential for disturbance effects and advise on measures to limit disturbance effects.
- There should be no lighting of the worksite that would cause light spill onto the redundant bridge control structure, pedestrian bridge or watercourse.
- If any temporary fencing of the construction site is required, an ecologist should be consulted on the design and position prior to its installation, to ensure that it couldn't cause obstruction of any potential roost sites or risk entanglement of bats.
- Ivy should be retained on the redundant bridge control structure where possible. If any removal of ivy is required to facilitate the security fencing installation, the ivy should first be hand searched by a licenced bat ecologist, with minor ivy removal undertaken as required.
- As a precautionary approach, it is recommended that a licenced bat worker remains 'on call' during the development works. In the unlikely event that any roosting bats are discovered, works must cease immediately and Natural England must be contacted to advise on any licencing requirements to allow lawful completion of the work.

If any of the recommendations above cannot be adopted, then further survey work may be required to determine whether a bat roost is present, and to enable a further, more detailed assessment of the potential impacts to be made.

In the unlikely event that high noise/vibration-causing works are required in close proximity to the structures, it might be necessary to carry out further surveys to determine whether a roost is present and enable a more detailed assessment of the potential for disturbance. It should be noted that if further survey work is required (which could potentially include an internal inspection and dusk emergence surveys), the window for undertaking emergence surveys is May to August/September, and potentially three survey visits would be required, each spaced at least three weeks apart.

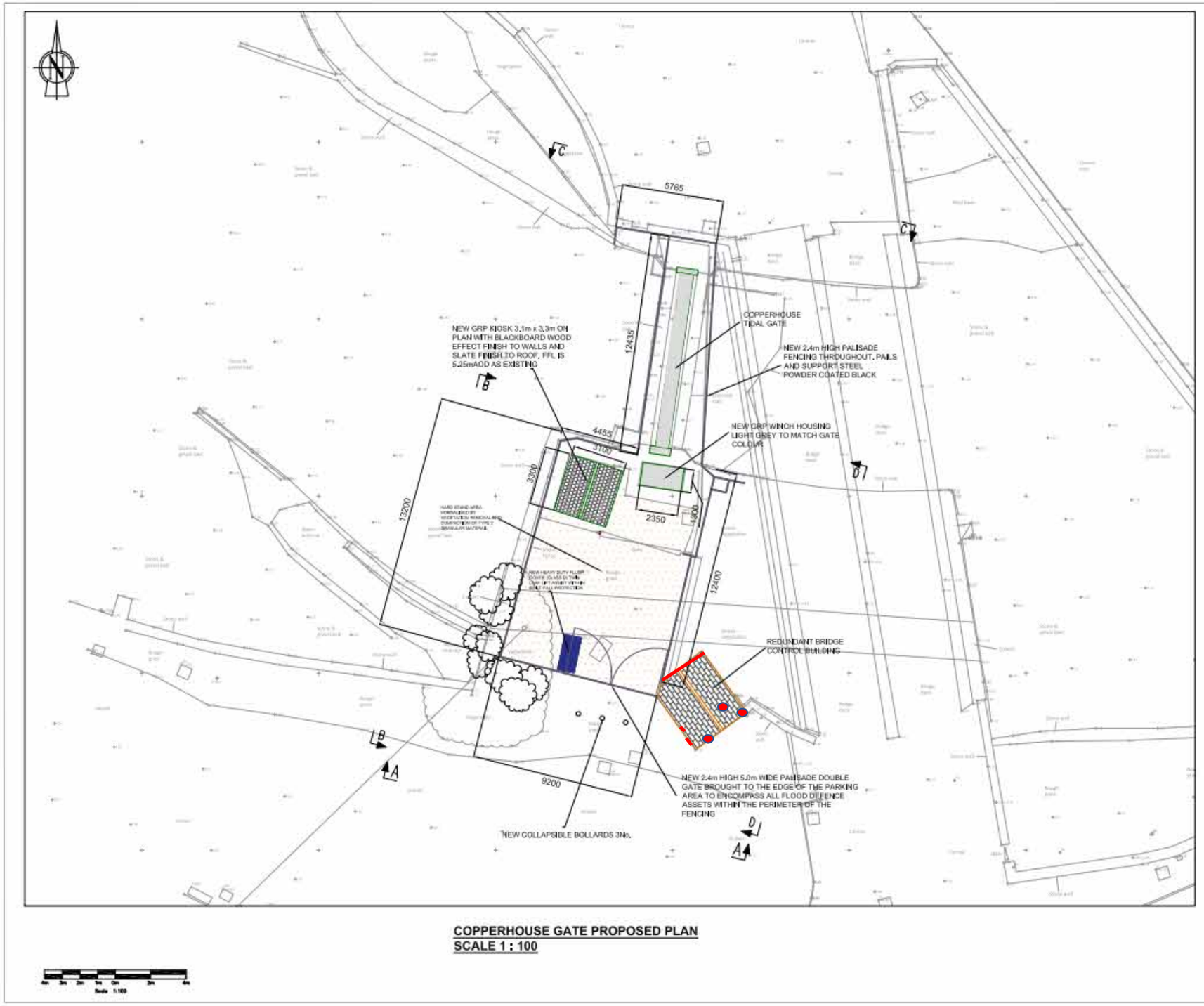
To conclude, based on the information available at this time it is considered unlikely that any bat roosts (or roosting bats) would be affected by the proposed works.

References

Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust, London.

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

APPENDIX A: Proposed Works and Potential Roosting Feature Locations



COPPERHOUSE GATE PROPOSED PLAN
SCALE 1 : 100

Key:

= Potential roosting features

Notes:

1 REFER TO DRAWING FR/13/S003/22/23/REC/04 FOR ELEVATIONS A-A, B-B, C-C and D-D.

2 ALL DIMENSIONS ARE IN mm UNLESS OTHERWISE STATED.

3 F.F.L OF NEW KIOSK IS 5.25mAOD

PRELIMINARY DESIGN

Environment Agency

2022/REC
COPPERHOUSE TIDAL GATE UPGRADES

COPPERHOUSE GATE OPERATIONAL IMPROVEMENTS PROPOSED PLAN PLANNING

FR/13/S003/23/24REC/05 | P01

APPENDIX B: Site Photographs

Kiosk	
 **Kiosk to be replaced.**	 **Vent and typical overhang on roof of kiosk.**
Winch housing	
 **Winch housing to be replaced.**	 **Winch housing to be replaced.**
Redundant bridge control building	
 **Redundant control building – south-east face and slightly lifted tiles on north-east face.**	 **Redundant control building – potential roost access points under lifted tile and through broken doorway on south-eastern face.**

Redundant control building – gaps behind fascia on south-western face.

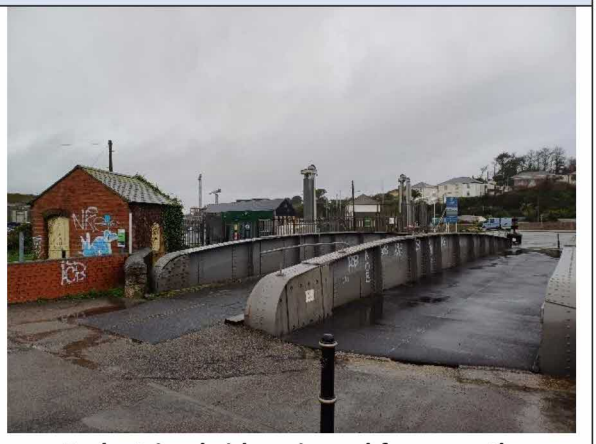
Redundant control building – ivy coverage on north-west face.

Redundant control building – gap behind fascia in places on south-western face.

Redundant control building – slightly lifted tiles on north-east face.

Pedestrian bridge

Pedestrian bridge – eastern face.



Pedestrian bridge viewed from south.