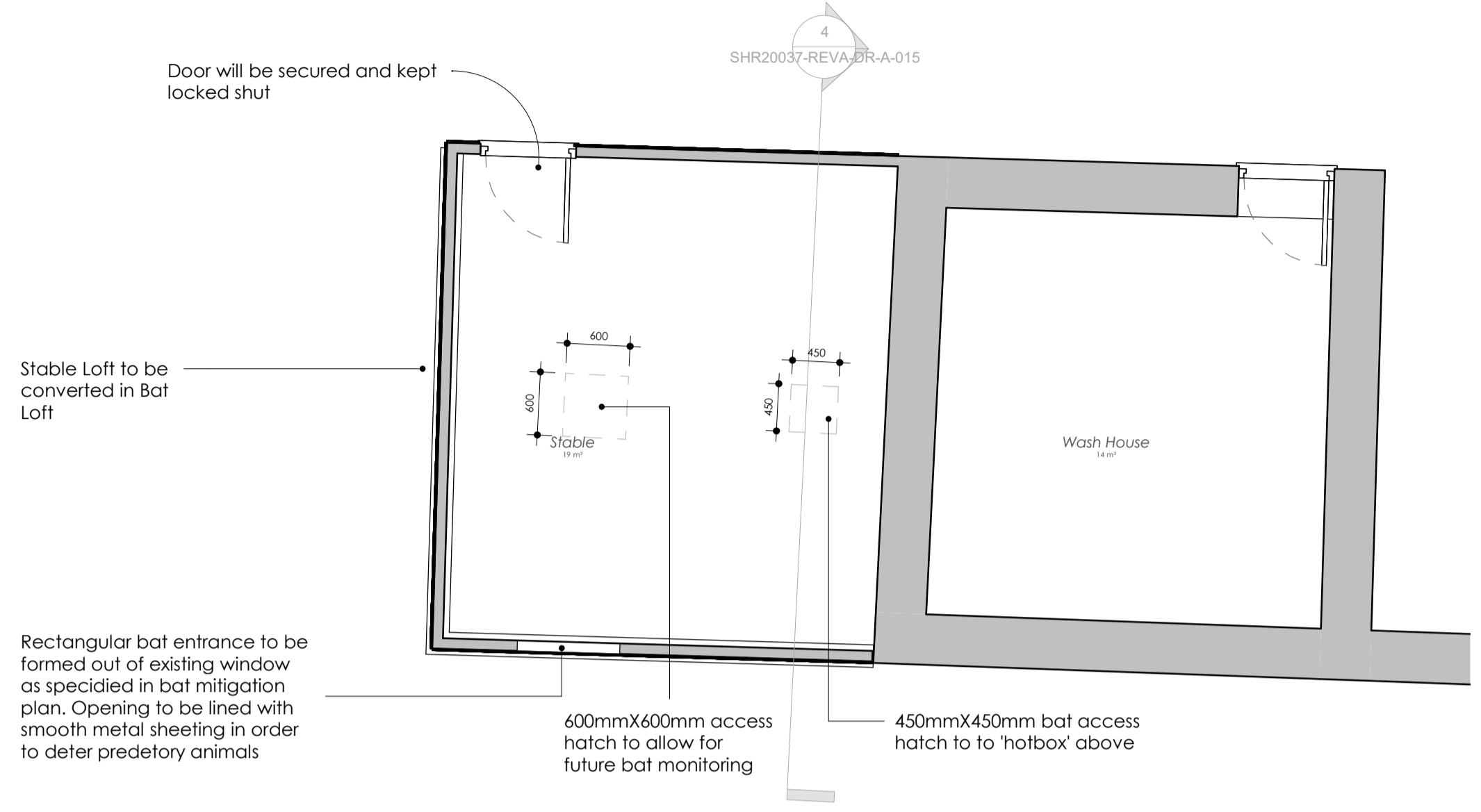
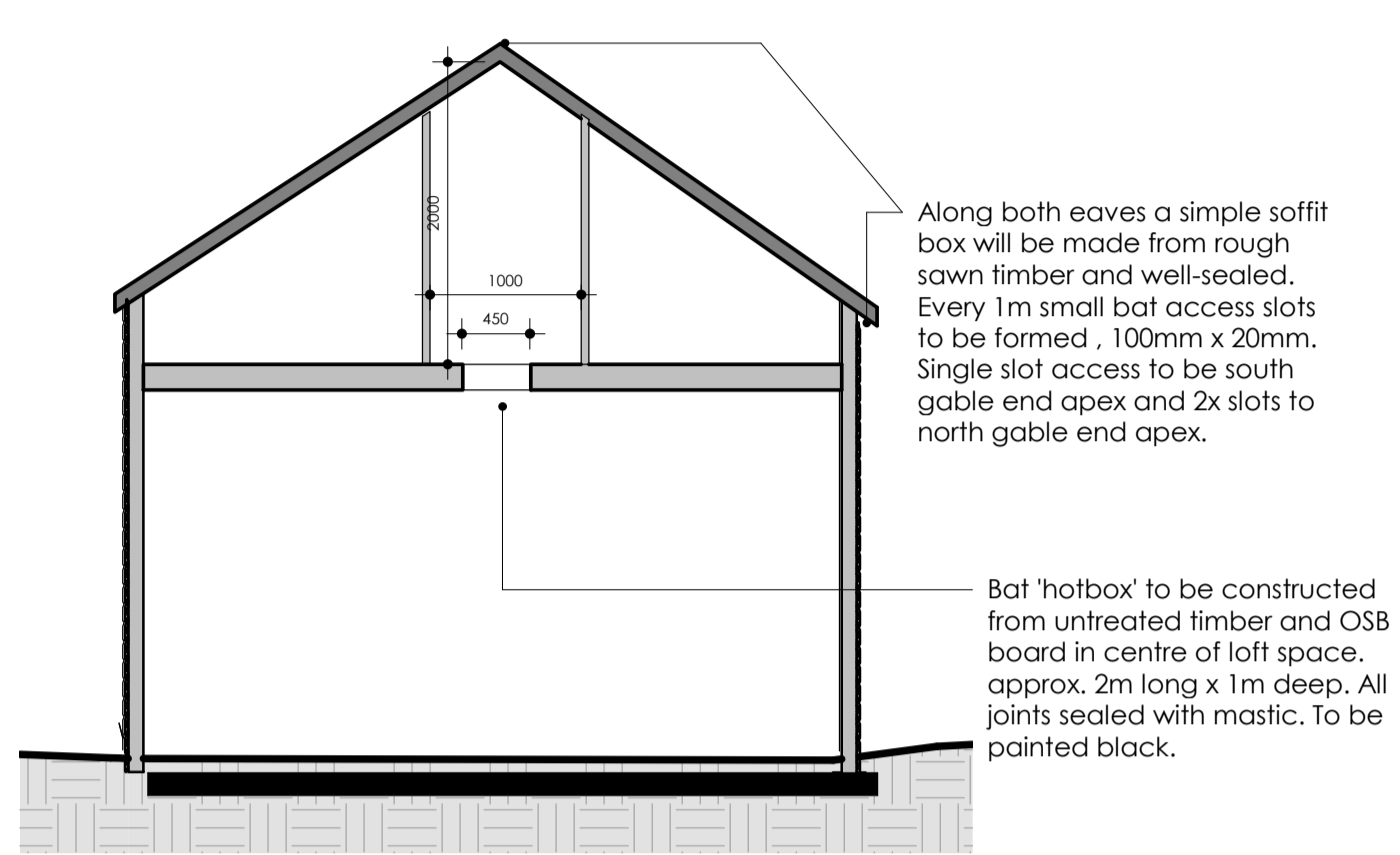


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5. ALL WORK IS TO BE CARRIED OUT IN ACCORDANCE WITH THE CURRENT BUILDINGS REGULATIONS AND ALL ASSOCIATED BRITISH STANDARDS.



1 Outbuilding & Bat Mitigation  
1:50



4 Bat Building Section  
1:50

**New bat roosting habitat**

I. A dedicated bat building will be made of Outbuilding 1 to provide bat roosting habitat to replace that in Outbuilding 4 including a ground level room and loft above. Outbuilding 1 has no conversion works planned. Bats will be excluded from Outbuilding 4 as part of the conversion works. Outbuilding 1 is large enough at around 5m square in plan and shall have all the design features listed below incorporated. This will provide the roosting and flying space essential for Natterer's, brown long-eared and lesser horseshoe bats. It must have a minimum apex height above its loft floor of 2.0m. It will have a load-bearing floor installed, designed for occasional access to monitor bats. There will be a secure, locked ground level door access to monitor bats.

II. The roof will be repaired/constructed with a traditional cut and pitch method to form an unobstructed open space using rough sawn/un-planed/pre-roughened timbers to aid bats to hang and grip. Ancient timbers can be fixed in the roof structure with cracks, splits, open mortises, slots etc. in them, these do not have to be structural. It will be re-roofed with slate (must be natural slate) using traditional bitumastic roofing felt BS8747:2007 TYPE 1F under. Breathable 'Tyvek' type products must not be used. Ridge tiles will be dark or black coloured to absorb heat. ALL roof timbers must be rough sawn (or roughened liberally before their construction with wire brush if they are not) and left exposed with no roof lining or insulation.

III. To the underside of the rafters inside the attic on both pitches fix 6 number rough sawn battens, about 25mm x 25mm in dimension, the width of the building excluding in the hot box (see below). The highest placed within 100mm of the apex beam and the other 5 at approx. 200mm spacing down the roof pitches. The lower parts therefore have no underside battens.

IV. The small tree at the South gable of building 1 will be removed completely to reduce shading of the roof pitches. Bats need heat in bat lofts from the sun. No large trees shall be allowed to grow over the roof.

V. A rectangular bat entrance/exit will be adapted from the former window in the east facing wall. It have no artificial light spilling into it. The entrance will be 500mm in width and 200mm in depth. It will be angled up through the wall at 45° in section. It will be installed with its upper edge at ideally about 1.7m from ground level. It is to enter the interior in the ground floor room (not into the loft). To deter cats jumping/climbing in the entrance, the bat entrance will be lined to all 4 sides in smooth metal sheeting. The area of exterior wall below the bat entrance will also be covered in a smooth metal sheet 1000mm wide over the timber cladding from ground level bending into the entrance hole with no "edge" there. The sheet will be as smooth as possible with any sheet overlaps being upper sheet over lower sheet.

VI. In the centre of the loft, a "hotbox" will be constructed of sterling/OSB and untreated timber, to be approximately 2000mm long, and 1000mm deep, sealed with mastic at its joints, painted black on the outside with a bat access hatch through its "floor" of 450mm by 450mm

VII. A human load bearing ceiling/floor over the whole area will be installed at approximately eaves level with rough sawn/un-planed/roughened timber joists and suitable timber flooring. An access hatch, 600mm by 600mm without a hatch door, no safety rail above and no access ladder will be installed in the centre of the ceiling/floor to allow bat access to the loft and human bat monitoring access.

VIII. A secure, exterior door will be provided on the west elevation wall for human access to monitor bats. This door must be kept locked and will be labelled: "This building has no access. The door is locked. This building must not be used for any human purpose e.g. no storage. It is a Dedicated Bat Building."

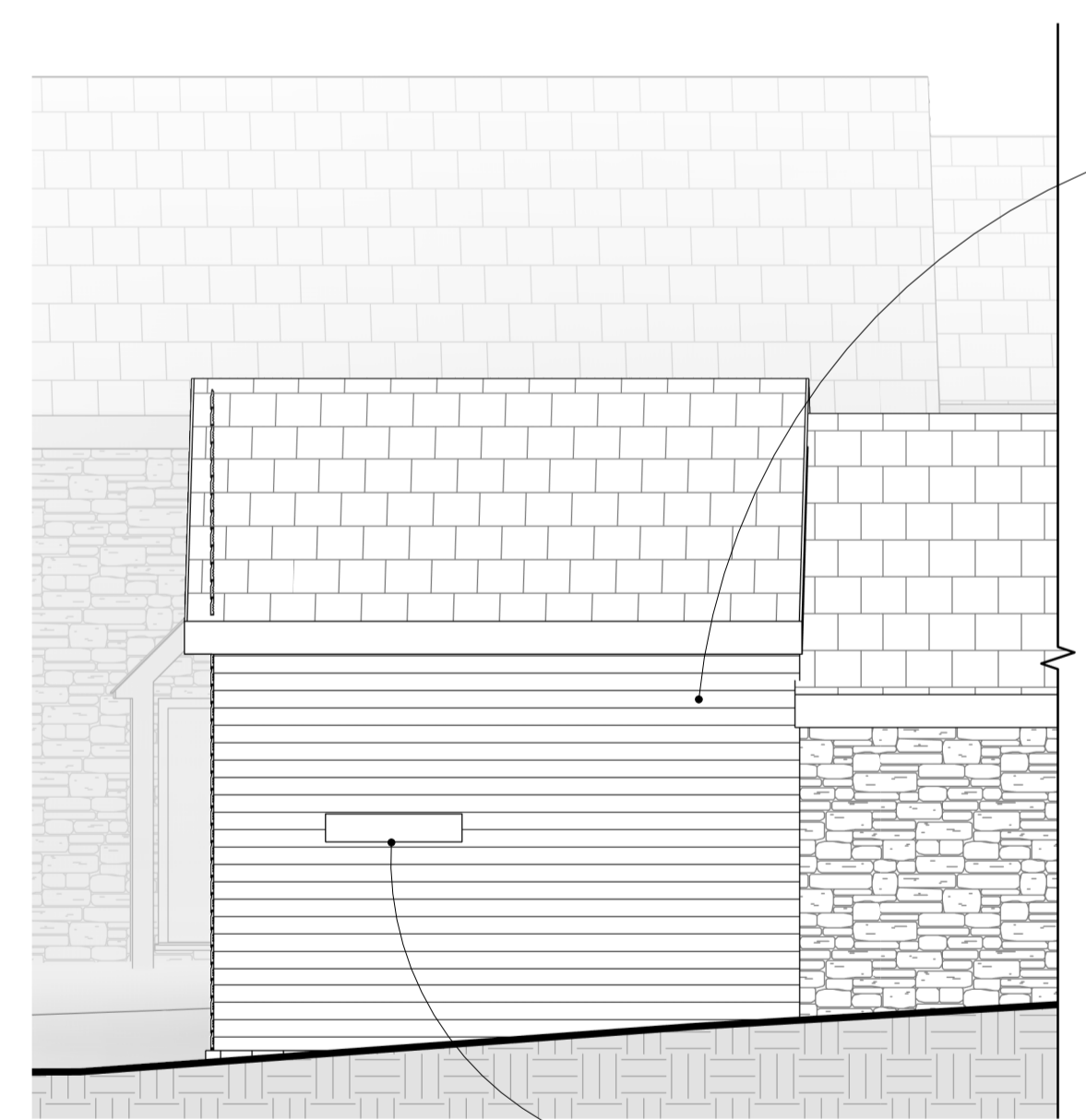
IX. The horizontal exterior timber cladding on walls will have holes, 20mm in diameter, at approx. 1000mm spacing, drilled up vertically at the bottom edge of a cladding board, at approx. 1.7m from the ground on each elevation to allow access for bats behind the cladding into the cavities between battens. The timber walls will have an interior lining throughout of OSB boarding to provide the cavity for bats to roost in

X. Five evenly spaced ridge tiles it will be "notched" (option C below) to their lower edges to provide a slot 100mm long and an effective depth, when the ridge tile is in situ, of 20mm (and no larger or smaller) to both lower edges to provide access for crevice dwelling bats such as pipistrelles under the ridge tiles but with no hole in the felt, with a cavity left inside the whole ridge so bats can move laterally from this point. The ridge will be a mortared not "dry system" ridge.

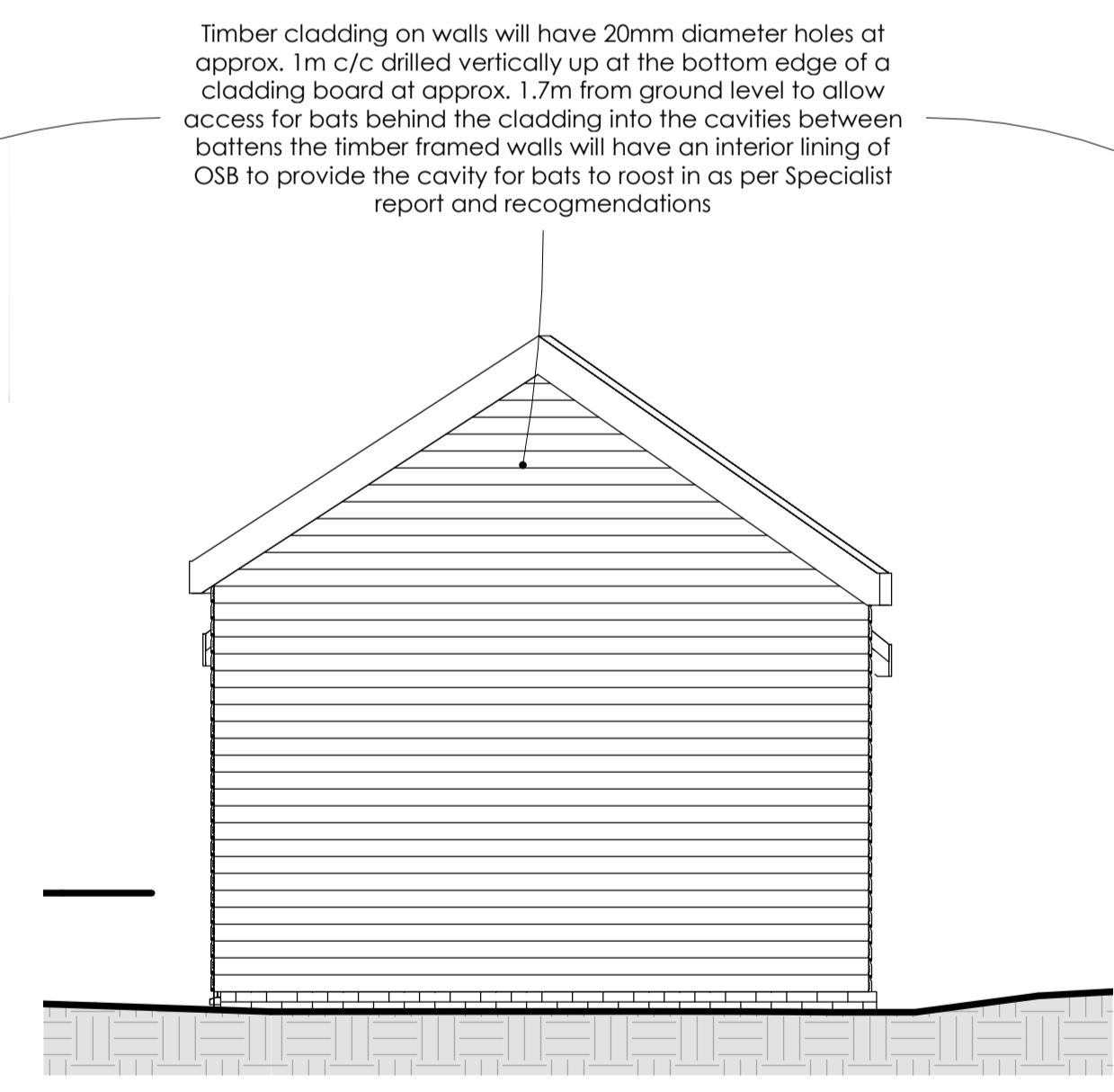
XI. Outbuilding 1 will have no lighting inside it or fixed to the outside of it and will have no exterior lighting within 10m of it at all and no exterior lighting directed at it at all. No electrical power will be wired in or supplied to the building or water supplied to it.

XII. Outbuilding 1 will have no solar panels of any sort placed over or on the roof or walls or contain any wiring, inverter or controller from any other panels nearby.

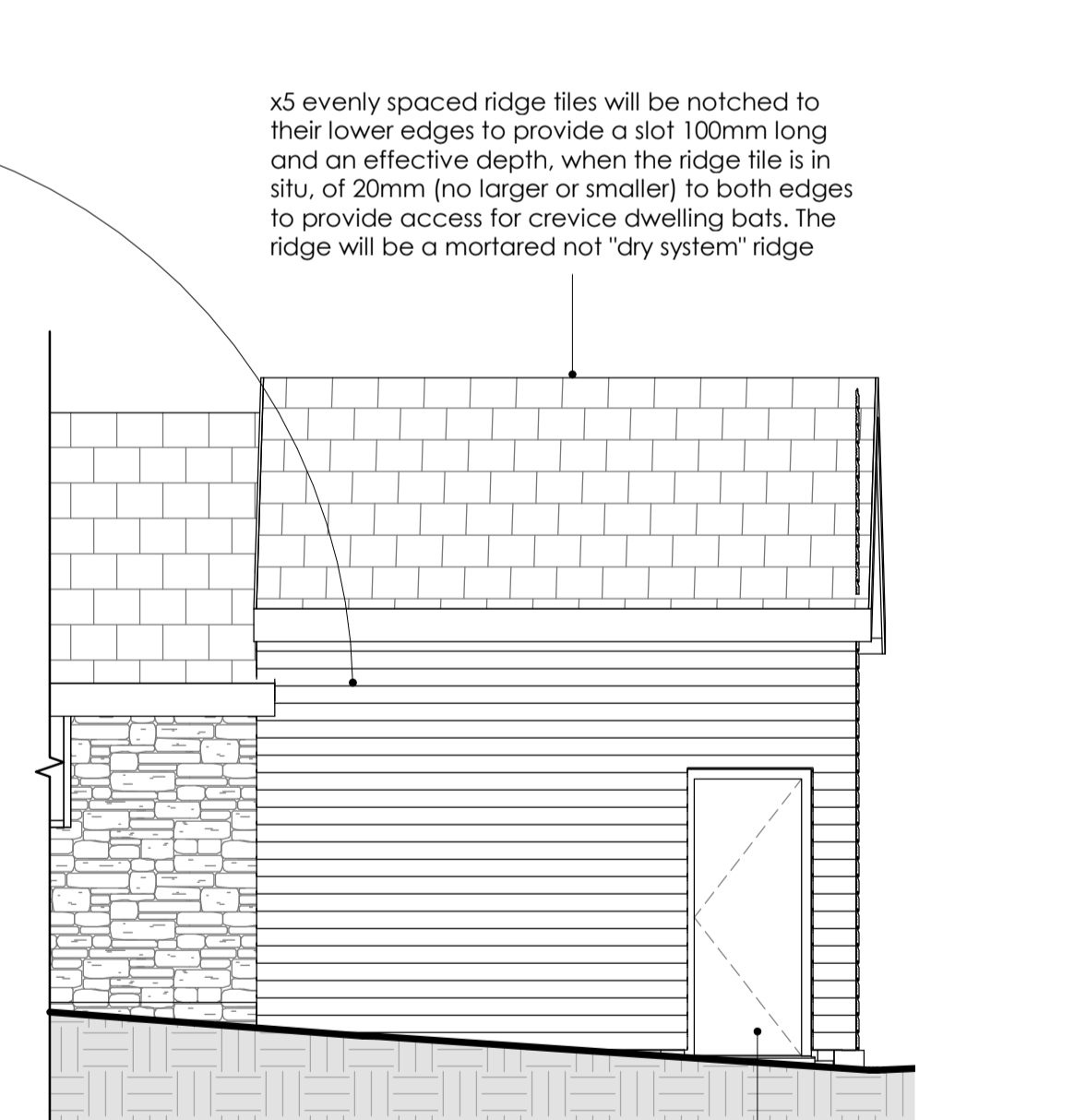
XIII. Along both eaves a simple soffit box with be made of rough timber and well-sealed but about every metre small bat access slots will be made, see below. All slots will be 100mm long and 20mm deep (and no larger) giving access to the interior. A single slot access of the same dimensions will also be made at the south gable apex. 2 slot will also be made on the north gable top above outbuilding 2.



2 Bat Building East Elevation  
1:50



3 Bat Building South Elevation  
1:50



5 Bat Building West Elevation  
1:50

**IMPORTANT**  
Drawing to be read alongside Specialist report and recommendations

Rev.	Rev. Description	Date	By	Chk

**REV-A ASSOCIATES**

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Date:	Drawn By:	Checked By:
21/07/2021	AC	AA

Suitability:	Scale:	Revision:
S2	1:50	

Drawing Name:  
Dedicated Bat Building

Drawing Number:  
SHR20037-REVA-DR-A-015