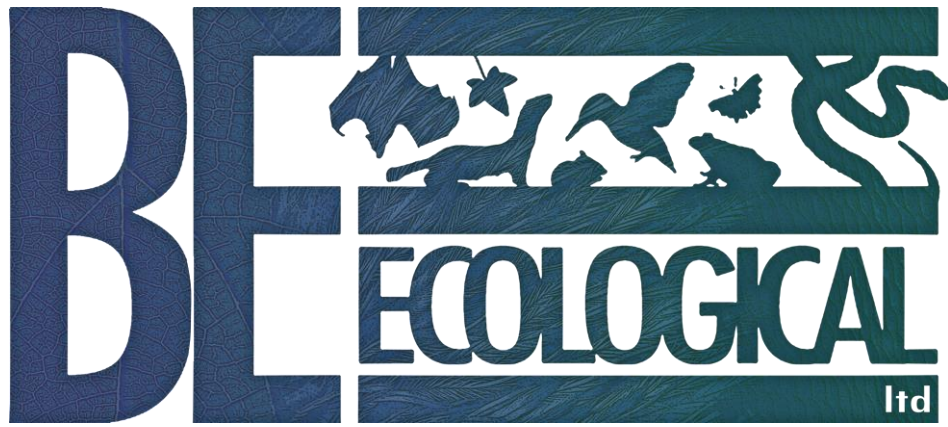




HOPE CHURCH, MERTHYR TYDFIL

BAT SURVEY

ISSUE 1, VERSION B

JULY 2023

Bat Survey Report

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EXECUTIVE SUMMARY

It is proposed to replace the existing slates at Hope Church, Merthyr Tydfil.

An initial bat inspection survey was undertaken on 9th May 2023 in order to inform a planning application to remove the existing slates and replace them with new slates. The results of the survey indicated that the building is at least of moderate potential for roosting bats.

The property was found to be a roost for a single common pipistrelle bat.

A European Protected Species Licence and mitigation will be required.

No evidence of breeding birds was found on the exterior or interior of the building at the time of survey.

1 INTRODUCTION

1.1 Background

BE ECOLOGICAL LTD was commissioned by the client to undertake an initial bat inspection survey and subsequent activity survey of Hope Church, Merthyr Tydfil in support of a planning application to replace the slates on the building.

This report includes the findings of the aforementioned bat activity surveys undertaken in the appropriate season.

The surveys were undertaken in line with the current guidance on standards for bat surveys (Bat Conservation Trust, 2016¹).

1.2 Site description

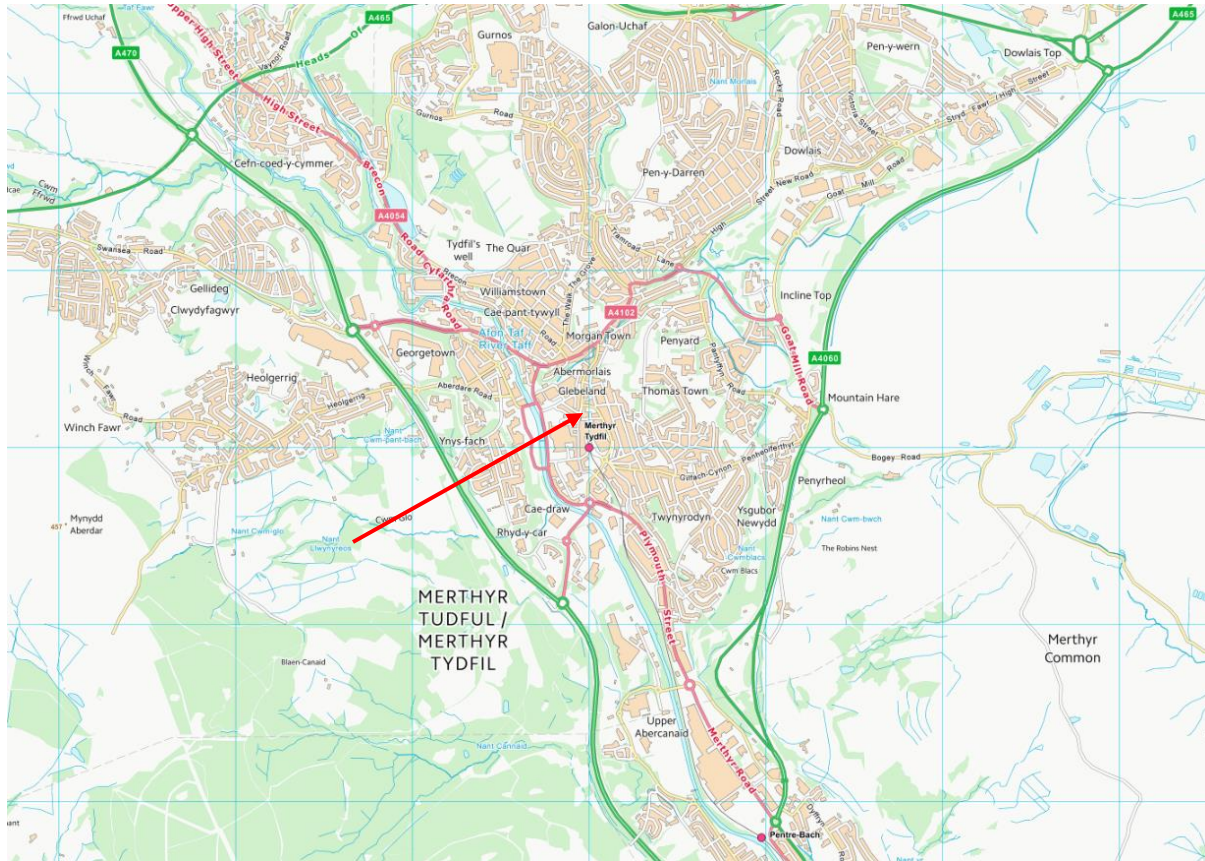
The property subject of this survey is located at Hope Church, Merthyr Tydfil. The church is situated in Merthyr Tydfil town centre.

The property is a large stone built structure beneath a slate roof. The roof of the main building comprises of one large pitched slate roof over the main body of the church, with a number of smaller dormers and small hipped areas, situated lower than the main ridge. There are a number of single storey arches to the front of the building which appear to have lead rooves. Stone work appears to be well pointed.

To the rear of the building there is a lower storey pitched roof and multiple small extensions off this, all of which have slate rooves. Barge boards and fascias where present appear to be of timber. Largely these are close fitting to the render.

There is no vegetation within the immediate vicinity of the site, however, further afield, there are lines of trees, leading to parkland and patches of broad-leaved woodland.

¹ *Bat Surveys for Professional Ecologists - Good Practice Guidelines* (Collins, J (Ed). BCT, 2016)



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Figure 1: Approximate location of site

1.3 Proposed development

It is proposed to replace the slates on the roof.

2 LEGISLATION & POLICIES

2.1 Conservation of Habitats & Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) provides safeguards for European Protected Species (those listed under Annex IV Habitats Directive). With regards to bats, this makes it an offence to:

- Deliberately (or recklessly in Scotland) capture, injure or kill a bat
- Deliberately (or recklessly in Scotland) disturb a bat in a way that would (significantly in Scotland) affect its ability to survive, breed or rear young (or hibernate or migrate in England, Wales and Northern Ireland) or (significantly in England, Wales and Scotland) affect the local distribution or abundance of the species.
- Damage or destroy a roost (this is an 'absolute' offence)
- Possess, control, transport, sell, exchange or offer for sale/exchange any live or dead bat or any part of a bat

2.2 Wildlife & Countryside Act 1981

The Wildlife & Countryside Act 1981 (as amended) is the legislation for England and Wales for nature conservation, making it an offence to:

- Intentionally or recklessly disturb a bat at a roost
- Intentionally or recklessly obstruct access to a roost

2.3 The Environment (Wales) Act 2016

The Environment (Wales) Act 2016 requires that all public authorities, when carrying out their functions in Wales, seek to "maintain and enhance biodiversity" where it is within the proper exercise of their functions. In doing so, public authorities must also seek to "promote the resilience of ecosystems". This ensures that biodiversity is an integral part of the decisions that public authorities take in relation to Wales. It also links biodiversity with the long term health and functioning of our ecosystems, therefore helping to align the biodiversity duty with the framework for sustainable natural resource management provided in the Act. In Wales, this legislation replaces and enhances the Natural Environment and Rural Communities Act (2006) which sought to raise the profile of biodiversity and to make sure that it is considered in all local authority decisions by ensuring that "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.". Other elements of NERC 2006 may still apply.

3 METHODOLOGY

3.1 Data Search

A data search was not required as stated by the Local Planning Authority Ecologist.

3.2 Survey Objectives

- To carry out an initial bat inspection survey along with the recommended activity surveys
- To present the above details and if necessary recommendations for mitigation, future research and compensation within this report.
- To carry out a scoping survey for breeding birds

3.3 Survey Summary

The bat survey comprised of four parts:

- Part 1- Initial bat inspection survey
- Part 2- A single activity survey
- Part 3- A single activity survey
- Part 4- A single activity survey

3.4 Surveyor Information

The survey was run by Beth Evans. Beth is the owner of BE ECOLOGICAL LTD and has a postgraduate degree in Environmental Biology: Conservation & Resource Management, specialising in British bats. Beth has six years' experience of ecological surveys, both in a small scale and large multi-disciplinary context. Beth also holds Natural Resources Wales and Natural England bat licences to disturb and handle bats.

Beth Evans was assisted during the activity surveys by Michael Hogan, Michael Rodgers, Gavin Vella and Dion Rowles. Michael Hogan is an experienced ecologist that held a bat licence in Wales for numerous years and has currently returned to work following a leave of absence from ecology. Gavin Vella is an experienced bat surveyor and ornithologist who undertakes work with BE Ecological Ltd and numerous other ecological consultancies. Michael Rodgers is volunteer with the wildlife trust and undertakes numerous ecological surveys and has been undertaking bat surveys with BE Ecological Ltd for the last three years. Dion Rowles is a trainee ecologist and is working towards his bat licence and has been undertaking bat surveys with BE Ecological Ltd for the last two years.

3.5 Internal & External Inspection

An initial inspection survey was carried out on 23rd May and again on 12th July 2023 (to check the roof for any fresh evidence of bats after the one was seen emerging) to search all buildings, both externally to identify potential bat roosting areas and signs of bat use including; live bats, dead bats, droppings, urine staining, grease marks and discarded prey items. The buildings and all areas/items of interest were recorded and photographed. Extension ladders/steps were used to safely access roof areas and

fascia boards etc; where no safe access was available the survey was conducted using, close focus binoculars and/or a high powered lamp.

3.6 Activity Surveys (emergence/re-entry surveys)

Building 'emergence' and 're-entry' surveys were carried out on the following dates, times and weather conditions. Climatic conditions including rain, wind, temperature and cloud cover were recorded for each survey using a hand held Kestrel 4500 weather station.

3.6.1 Survey 1- 9th May 2023

A dusk survey was carried out on 9th May 2023 using surveyors and cameras positioned in such a way that as much of the building was visible to surveyors as possible. Surveyors were equipped with Batlogger M detectors.

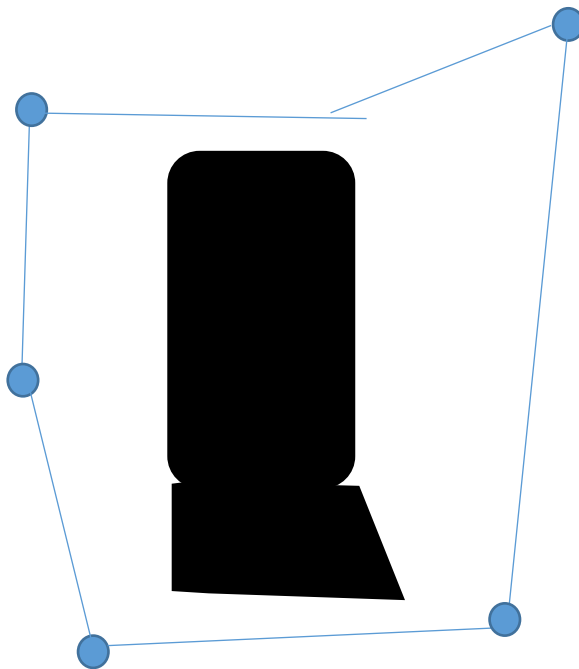


Figure 2: Approximate surveyor locations (surveyors marked as a blue circle; line of sight lined blue)

3.6.2 Survey 2- 23rd May 2023

A dusk survey was carried out on 23rd May 2023 using surveyors positioned in such a way that as much of the building was visible to surveyors as possible. Surveyors were equipped with Batlogger M detectors.

3.6.3 Survey 3- 22nd June 2023

A dusk survey was carried out on 22nd June using surveyors, positioned in such a way that as much of the building was visible to surveyors as possible. Surveyors were equipped with Batlogger M detectors.

3.7 Survey limitations

Any survey for bat species can only be a series of snapshots in time. Bats are highly mobile, long lived creatures (capable of living up to 30 years, sometimes longer) with complex social structures and utilising multiple roost sites within a year. The implications of this are that surveys and surveyors have to make informed assumptions based on observations, recorded data, local information and a detailed knowledge of the species.

Cameras were not deployed throughout the survey due to ongoing anti-social behaviour in the town centre. Cameras were attempted to be deployed during the first survey, however, were then taken away due to their expense and to ensure surveyor safety.

4 RESULTS

4.1 Inspection survey

4.1.1 External survey results

The survey carried out by BE Ecological Ltd revealed no droppings or evidence of bats on the exterior of the building. A small number of access points were noted on the exterior of the building

- Small number of slipped slates (some of these have been filled with silicone to prevent leaks)
- Possibly small gaps beneath barge boards
- Gaps beneath lead flashing

Please see appended plates for photographs of the property exterior. The stonework of the building appears to be relatively intact.

As such, the property was categorised as being of low potential for roosting bats and further emergence/re-entry surveys were recommended.

No birds were noted during the survey.

4.1.2 Internal survey results

Internally, the property has a roof space that is accessed from the main church hall. The access is hatches are difficult and would require balancing a ladder from the pew to the hatch. Therefore access to this area was deemed unsafe and the area was not inspected.

The eastern section of the building has a roof space that is currently used for storage. The void is approximately 3m in height in places. The roof is unlined and the joists are lined with fiberglass insulation. It is not safe to walk on some areas due to the insulation obscuring the joists. No bats or evidence of bats was found in this location.

4.2 Activity surveys

The surveys were undertaken as per the table below:

4.3 Survey Schedule and Weather Conditions

Table 1: Schedule and weather conditions

Visit	Date (sunrise) (sunset)	Start End	Time	Temp C	Wind	Cloud Cover	Notes
Survey 1 09/05/2023	20:50	Start	20:30	14	Low	30%	Dry evening, insects flying
		End	22:30	12	Low	30%	
Survey 2 23/05/2023	21:11	Start	20:55	18	Low	60%	Dry evening insects flying
		End	23:00	16	Low	30%	
Survey 3 22.06.23	21:36	Start	21:20	19	Low	45%	Dry evening, insects flying
		End	23:15	19	Low	30%	

4.4 Activity Survey Results

4.4.1 Survey 1- 9th May 2023

The first bat heard was a common pipistrelle. The bat was heard at 21:07 and seen flying along the lane to the east of the site.

The only species heard throughout the survey were common and soprano pipistrelles. Activity was not high at the site with only a few bats noted commuting and foraging along the lane to the east and the alley way to the north.

A small number of common pipsitrelles were observed commuting along the street to the south. Bats generally came from the north and west.

No bats emerged from nor interacted with the property on this date.

4.4.1 Survey 2- 23rd May 2022

The first bat heard was a common pipistrelle, the bat was seen at 21:44. The exact exit point was not able to be identified, however, it was likely to be from beneath the barge board of the higher storey on the eastern gable before commuting north. Despite, the fact an exact access point was not identified, the bat was not seen by any other surveyor approaching the building. The bat dropped towards the ground before commuting north, typical of emergence.

Again the only bats heard throughout the survey were common and soprano pipistrelle. Again activity appeared to be focussed along the lanes to the north and east of the site.

No further bats were seen emerging from the property on this date. No further bats interacted with the property on this date.



Figure 3: Photograph of approximate emergence point circled red

4.4.2 Survey 3- 22nd June 2023

The only bat species heard and seen on site were common pipistrelle. The first bat heard was a common pipistrelle. The bat was seen flying high in the sky commuting from the north.

Activity was not as frequent as the first two surveys but bats were undertaking similar behaviour with activity focussed to the north and east of the site.

No bats emerged from nor interacted with the property on this date.

4.4.3 Identified flight paths (arrowed red); roost location starred yellow



Figure 4: Identified flight paths and roosting location; white arrow indicates flight behaviour of emerging bat (Google Maps, 2023)

4.5 Identified Roosts

4.5.1 Survey 1

The property was not identified as a bat roost.

4.5.2 Survey 2

The property was identified as a roost for a single common pipistrelle.

4.5.3 Survey 3

The property was not identified as a roost.

Conclusion

Generally bat activity at the site is low with only two species heard throughout the survey, common and soprano pipistrelle. The bats appear to favour foraging and commuting along the lane to the north and east of the site, with lower levels of activity to the south.

A licence from Natural Resources Wales will be required prior to any works being undertaken on the upper storey of the building (boxed red in figure 5 above).

It is considered that as the area to the east (figure 5, boxed yellow) is subservient to the area of roof where the bat was found to be roosting, works to this area can proceed without a licence being obtained from Natural Resources Wales providing it is undertaken in line with a detailed method

statement and close ecological supervision. If at any time bats or evidence of bats is found in this area, all works will cease and NRW will be consulted.

Breeding Birds

No evidence of breeding birds was found throughout the property.

5 INTERPRETATION & IMPACT ASSESSMENT

5.1 Active Season Usage

It is considered that the property is a roost for a single common pipistrelle bat.

5.2 Hibernation Season Usage

It is possible that bats will use the property over winter.

5.3 Breeding Birds

No evidence of breeding birds was found throughout the property.

5.4 Ecological Impacts of development

The impacts of the development have been assessed using the current information of the proposed works. Should any changes be made to the proposed works, the assessment will need to be reviewed and amended as necessary.

It is considered likely that the property is a roost for a single common pipistrelle bat. It is possible that the bat will be injured/killed/suffer roost loss if it is present at the time of works.

6 MITIGATION/COMPENATION /ENHANCEMENT

6.1 Bats

A bat box will be attached to the eastern gable. The bat box will be <https://www.greenwoodsecohabitats.co.uk/shop> (or equivalent) and will be retained in situ. The bat box will be positioned at a height of no less than 3.5m from the ground.

A gap will be left on the rear of the building between the wall and barge boards of the upper eastern gable. . Access points for crevice-dwelling bats can be as small as 15-20mm high x 20-50 mm wide. These gaps will be left beneath either side of the apex of the eastern gable where the bat was identified roosting.

6.2 Birds

A Schwegler 1SP Sparrow Terrace or the following will be attached to the eastern elevation of the property <https://www.nhbs.com/dual-chamber-sparrow-terrace> (or equivalent).

7 RECOMMENDATIONS

7.1.1 Timing

It is considered that the building is a roost for single bats only. It is possible that bats will be able to use the building for hibernation, as such, the winter period should be avoided.

7.1.2 Timber/roofing materials

The roof of the building will be lined with BS747 Type 1F bitumen roofing felt ONLY throughout. No breathable membrane will be used.

Where treatment of existing timbers is required in-situ, only products suitable for use around bats will be used, as specified by Natural England and DEFRA at <https://www.gov.uk/guidance/bat-roosts-use-of-chemical-pest-control-products-and-timber-treatments-in-or-near-them>. A copy of the approved list will be issued to all contractors. New timbers will be pre-treated prior to installation.

7.1.3 Lighting

Newly created access points and bat boxes will not be directly illuminated. All external lighting will face downwards and be set on timers to ensure that bats can use the area should they wish. – In addition to this, any onsite lighting will conform to the following guidelines:

<https://theilp.org.uk/publication/guidance-note-8-bats-and-artificial-lighting/>

Flight paths to the bat boxes and the newly created bat mitigation will be kept dark at all times.

The client has confirmed that there will be no additional lighting to the site.

7.1.4 Bat Licensing

A European Protected Species Licence obtained from Natural Resources Wales will be required before any works commence.

7.1.5 Supervision

Supervision for the removal of the roof will be required.

8 METHOD STATEMENT (ONCE A LICENCE HAS BEEN OBTAINED) for the upper storey (figure 5, boxed red)

1. A suitably licenced and experienced ecologist will be on site/call for the duration of the works.
2. Before any work begins on site, a briefing for contractors and other site-staff 'toolbox talk' will be given by an ecologist. The briefing will cover the issues in respect of protected species they may encounter on site, where they might find them, methods of working, and what they need to know to avoid committing an offence. Every briefing attendee will be provided with a copy of a Method Statement and the contact details of an ecologist and Natural Resources Wales.
3. Prior to works commencing, the bat boxes will be erected within the retained trees of the site under the supervision of the licensed ecologist.
4. All suitable bat roosting features will need to be removed by hand (slates) and inspected by the onsite bat ecologist.
5. The tiles will also need to be removed manually, one at a time, with the bed and underside inspected for bats/sign of bats by the onsite ecologist before moving onto the next.
6. If at any point bats are encountered, all works will cease until such a time the supervising ecologist has captured the bat and moved it out of harms way and into the previously erected bat boxes. Works will not recommence until such a time that the supervising ecologist has given permission to do so.
7. If at any point more bats than stated in the licence are discovered or bats of any other species not named in the licence are encountered, all works will cease and NRW will be consulted. Works will not recommence until such a time NRW have given the permission to do so. This may involve further survey effort or an amendment to the licence.
8. Only when the onsite bat ecologist is happy that there is no further potential for bats, may he/she leave and the works continue with no supervision. A licensed bat ecologist will be on call for the remainder of the works. In the unlikely event that bats are found during a period that the licensed bat ecologist is not present on site, all works must cease and the licenced bat ecologist engaged.

9 METHOD STATEMENT for the lower storey to the east (figure 5, boxed yellow)

1. Any scaffolding erected will be erected in such a way that it does not block/interfere with the identified bat access point
2. A suitably licenced and experienced ecologist will be on site/call for the duration of the works.
3. Before any work begins on site, a briefing for contractors and other site-staff 'toolbox talk' will be given by an ecologist. The briefing will cover the issues in respect of protected species they may encounter on site, where they might find them, methods of working, and what they need to know to avoid committing an offence. Every briefing attendee will be provided with a copy of a Method Statement and the contact details of an ecologist and Natural Resources Wales.
4. Before any work commences, the exterior and interior of the building will be checked by the ecologist for the presence of bats and birds.
5. All suitable bat roosting features will need to be removed by hand (slates, lead flashing) and inspected by the onsite bat ecologist.
6. The slates will also need to be removed manually, one at a time, with the bed and underside inspected for bats/sign of bats by the onsite ecologist before moving onto the next.
7. Only when the onsite bat ecologist is happy that there is no further potential for bats, may he/she leave and the works continue with no supervision. A licensed bat ecologist will be on call for the remainder of the works. In the unlikely event that bats are found during a period that the licensed bat ecologist is not present on site, all works must cease and the licenced bat ecologist engaged.
8. If bats or their signs are found, a EPS licence may be required before works can legally resume.

10 REFERENCES

Bat Conservation Trust. (2023) *Bat Surveys - Good Practice Guidelines*. Bat Conservation Trust, London.

Mitchell-Jones, A.J. & McLeish, A.P. (2004) *The bat workers' manual (3rd Edition)*. Joint Nature Conservation Committee.

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

The Conservation of Habitats and Species Regulations 2017 (as amended) (HMSO).

The Natural Environment and Rural Communities Act (2006) (as amended) (HMSO).

The Wildlife and Countryside Act 1981 (as amended) (HMSO).

APPENDIX A- SITE PHOTOGRAPHS

Plate 1- north eastern corner of the site



Plate 2- southern elevation of the site



Plate 3- southern elevation of the site



Plate 4- northern elevation of the site



Plate 5- lower storey to east of site



Plate 6- photograph of accessible roof void



Plate 7- photograph of access hatches that were not able to be entered for health and safety reasons



Plate 8- photograph of accessible roof void



Plate 9- photograph of smaller area off roof void



Plate 10- photograph of roof void

