

Cleator Moor Innovation Quarter – Unit 1A

INTERIM BAT ROOST ASSESSMENT REPORT

784-B034942 Rev 1

Copeland Borough Council

April 2022

Prepared on Behalf of Tetra Tech Management Services Limited.

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EXECUTIVE SUMMARY

Contents	Summary
Site Location	Unit 1A is located in Cleator Moor and is centred at Ordnance Survey National Grid Reference NY 01491 15430. The site lies on the north side of Leconfield Street.
Proposals	Unit 1A is proposed for refurbishment which includes recladding of walls and recladding of roof.
Scope of this Survey(s)	 Previous reports available for the site: Tetra Tech (2021a) Cleator Moor Innovation Quarter: Bat Roost Assessment Report. On behalf of Copeland Borough Council. Ref: 784-B029668 Tetra Tech (2021b) Cleator Moor Innovation Quarter: Ecological Appraisal. On behalf of Copeland Borough Council. Ref: 784- B029668 WYG (2020) Leconfield Industrial Estate: Ecological Appraisal Report.
Results and Evaluation	An active common pipistrelle day roost (Roost R1) was present on the southeast elevation of Unit 1A.
Recommendations	A day roost of common pipistrelle was confirmed within Unit 1A in 2021. This roost is of Low Conservation Significance.
	Information provided indicates that bat roost R1 will be destroyed through re-roofing and cladding activities.
	A European Protected Species Mitigation Licence must be obtained from Natural England to permit works to Unit 1A. A bat survey update is recommended in 2022 to update conditions.
Conclusions	An EPSML must be obtained from Natural England prior to commence of refurbishment works at Unit 1A. This can be a standard EPSML, registration under the BMCL or registration under the Bat Earned Recognition Scheme.
	The EPSML can only be gained once planning consent has been granted and will place reasonable conditions on the development to ensure that no bats are killed / injured during works and that the favourable conservation status of the species present is maintained.
	An outline mitigation strategy for works has been provided as part of this report; it is proposed that the roost R1 will be compensated with one bat box (installed on refurbished Unit 1A). Another bat box will be installed on a retained tree in W4 and act as a release site for any captured bats and maintained as enhancement.



GLOSSARY

BER	Bat Earned Recognition
BMCL	Bat Mitigation Class Licence
CBC	Copeland Borough Council
CIEEM	Chartered Institute of Ecology & Environmental Management
EPS	European Protected Species
EPSML	European Protected Species Mitigation Licence
LERC	Local Ecological Record Centre
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
NPPF	National Planning Policy Framework
PRF	Potential Roost Feature



1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech was commissioned by Copeland Borough Council in April 2022 to review existing bat reports and baseline information to compile an Interim Bat Roost Assessment report for the refurbishment of Unit 1A. This building was subject to a detailed bat roost assessment in 2021 for the wider Cleator Moor Innovation Quarter (CMIQ) site (Tetra Tech, 2021a).

This report was prepared by Tetra Tech Consultant Ecologist Elizebeth Wilcox Qualifying CIEEM and the conditions pertinent to it are provided in Appendix A.

1.2 SITE DESCRIPTION

Unit 1A is located in Cleator Moor and is centred at Ordnance Survey National Grid Reference NY 01491 15430 – see Figure 1 for site location plan.

Unit 1A is located east of Leconfield Street at the entrance to the wider CMIQ Site and lies on the north side of Leconfield Street.

Industrial units surround Unit 1A to the north east and west with residential properties present along Leconfield Street to the south. Woodland is present along the eastern boundary. Cleator Moor town centre is located approximately 300m southeast of the site.

1.3 DEVELOPMENT PROPOSALS

Unit 1A is proposed to be refurbished. These proposals are detailed in Appendix B (Drawing references: CMIQ-NOR-01A-ZZ-DR-A-90002_Rev A03 and CMIQ-NOR-01AZZ-DR-A-00201_Rev A02) and are summarised below:

- Proposed recladding of walls;
- Proposed recladding of roof;
- Roof linked to Unit 1A to be overlaid with 200mm insulation and single ply membrane, PPC aluminium copings to new cladding;
- Link created between Unit 1A and detached building to north east:
 - Square mesh screens to be replaced with PPC metal perforated mesh, incorporating double gate to one side;
 - Roof to be overlaid with separating membrane and single ply membrane, PPC aluminium fascias;
- Replacement PPC metal gutters and downpipes, gulleys and drain connectors adapted to suit;
- Replacement garage doors;
- Replacement windows and doors;
- Security shutters integrated into new window and door assemblies and re-cladding;
- Existing concrete ramp to double door on front elevation to be replaced with steps and ramp;
- Existing steps to two fire exits to be replaced with new steps and landing space for wheelchair refuge;
- Provide two foul drainage pop-ups at opposite ends of the building, connected to external foul water drainage system;
- Repairs including:
 - Re-pointing of low-level external brickwork in isolated areas;



- Investigation and repair of cracks to brickwork above fire doors, goods access doors and isolated high-level areas;
- o Structural stitching of cracks to brickwork near to main structural members;
- Replace c.5 missing bricks to external wall;
- Demolish brick bund (c.3m x 5m x 1m high) and remove concrete base; and
- Isolate and remove external lighting and replace external lighting above all external doors.

1.4 PURPOSE OF REPORT

The purpose of this report is to complete a review of existing reports / baseline information in order to undertake a bat roost assessment of Unit 1A red line boundary, identify impacts to roosting bats and provide appropriate recommendations and mitigation.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.



2.0 METHODOLOGY

2.1 DESK STUDY

Previous Reports

The following previous reports with information relating to bats have been issued to Copeland Borough Council (CBC) and are reviewed in this report:

- Tetra Tech (2021a) Cleator Moor Innovation Quarter: Bat Roost Assessment Report. On behalf of Copeland Borough Council. Ref: 784-B029668;
- Tetra Tech (2021b) Cleator Moor Innovation Quarter: Ecological Appraisal. On behalf of Copeland Borough Council. Ref: 784-B029668; and
- WYG (2020) Leconfield Industrial Estate: Ecological Appraisal Report.

2.2 LIMITATIONS

Details of the 2021 report are considered to remain valid for one year (i.e. until 15th September 2022), however update nocturnal surveys are recommended during the 2022 active season to provide an update of conditions and inform the European Protected Species Mitigation Licence (EPSML). This interim report will be updated with the results of these surveys.



3.0 BASELINE CONDITIONS

3.1 PREVIOUS REPORTS

The 2021 bat roost assessment at the CMIQ (Tetra Tech (2021a)) was reviewed and is summarised below:

3.1.1 Desk Study

Bat records for a variety of bat species within a 2 km radius of the CMIQ site were returned (from the past 10 years) and are shown in Table 1.

Species	No. of records	Date	Recording	Distance & Direction
Natterer's bat Myotis nattereri	1	2017	1 count	1.9 km S
Soprano pipistrelle Pipistrellus pygmaeus	1	2011	5 count	1.7 km NE
Noctule Nyctalus noctula	1	2011	1 count	1.7 km NE
Common pipistrelle <i>Pipistrellus</i>	2	2011	1 count	1.7 km NE
pipistrellus		2012	Count of more than 5 bats	1.8 km S
Unidentified bat	1	2016	Not specified	1.8 km N

Table 1: Desk study bat results (only records post 2010 are shown)

One bat EPSML was granted for the destruction of a resting site for whiskered bat *Myotis mystacinus*, Natterer's bat & Brandt's bat *Myotis brandti* in 2013, located approximately 0.7 km west of the CMIQ site.

3.1.2 Daytime Building Inspection

Unit 1A comprised a tall brick-built building with a slight double pitched roof finished with bitumen (see Photograph 1).



Photograph 1 – Western corner of Unit 1A on Leconfield Street



A number of features with potential to be used by roosting bats were identified within Unit 1A (see Appendix C for details).

No bat droppings / signs of bat occupancy were noted on the exterior of Unit 1A.

Unit 1A was considered to offer low suitability for use by roosting bats during the active season but was unlikely to be suitable for use by maternity colonies or hibernating bats.

3.1.3 Bat Emergence and Re-Entry Surveys

Dusk emergence survey Unit 1A – 29th July 2021

During the dusk emergence survey, a single common pipistrelle bat was observed emerging from the gap between the brick wall top and the wooden facia / bitumen roof overlap on the southern corner of Unit 1A at 21:42, (22 minutes after sunset. (See Figure 2, Roost R1 and Photograph 2 below)).

Photograph 2 - Roost 1, Unit 1A



Moderate to low common pipistrelle and soprano pipistrelle activity was observed throughout the survey with majority for the activity concentrated east and north of the building (near the young woodland W4 – see Figure 2).

Common pipistrelle continuous foraging activity was recorded east and north of the building between 21:43 and 22:43. Soprano pipistrelle individual passes were recorded south of the building at 22:18 and 22:34 and north of the building at 21:52 and 22:43.

Dawn re-entry / roost characterisation survey Unit 1A – 1st September 2021

During the dawn re-entry survey a single common pipistrelle re-entered a gap along the southern corner of the roof of building Unit 1A at 06:09 (12 minutes before sunrise). This was the same roost location as identified during the dusk emergence survey on 29th July (Figure 2, Roost R1).

Low levels of common pipistrelle commuting and foraging activity were recorded south of the building.



The first common pipistrelle recorded was at 04:58. Commuting and foraging was recorded south of the building, with a single common pipistrelle commuting / foraging south and east of the building between buildings, at 05:29, 05:30, 05:48, 05:51, 05:53 and 06:00 before entering the roost at 06:09.

Dusk emergence / roost characterisation survey Unit 1A – 15th September 2021

During the dusk emergence survey no bats were recorded emerging from Unit 1A. No emergence was observed from the roost identified on 29th July and 1st September (Figure 2, Roost R1).

Low levels of common pipistrelle commuting and foraging activity were recorded south and east of the building. The activity involved a single common pipistrelle bat foraging on site between 20:06 and 20:20 and single bat passes at 20:27, 20:29, 20:33 and 20:44.

3.1.4 Bat Roost Assessment – Trees

Woodland groups in the wider CMIQ site were assessed from the ground in 2021. The only woodland block relevant to Unit 1A was W4, which is located along the eastern boundary of the site. W4 is young wet woodland south-east of Unit 1A. No trees with PRFs were located within W4.



4.0 RELEVANT PLANNING POLICY & LEGISLATION

4.1 LEGISLATION

All British bat species are given special protection within England by their inclusion on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended) and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As a result, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat's roosting place (even if bats are not occupying a roost at the time);
- Possess or advertise, sell or exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

With specific reference to the offence of disturbance, Regulation 41(1) of the Conservation of Habitats and Species Regulations 2017 (as amended) states that a person commits an offence if they:

"...deliberately disturb wild animals of any such species [i.e. a European Protected Species] in such a way as to be likely significantly to affect:

- (i) the ability of any significant group of animals of that species to survive, breed, or rear or nurture their young; or
- (ii) the local distribution or abundance of that species".

Where development will result in damage to, or obstruct access to, any bat roost (whether occupied or not) or risks harming or significantly disturbing bats, a European Protected Species Mitigation Licence (EPSML) is required from Natural England to allow the development to proceed. Bats are also afforded more general protection in England (and Wales) within the Natural Environment and Rural Communities Act (NERC) 2006. This imposes a duty on all public bodies, including local authorities and statutory bodies, in exercising their functions, "...to have due regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity" [Section 40 (1)]. It notes that "conserving biodiversity includes restoring or enhancing a population or habitat" [Section 40 (3)]. Consequently, attention should be given to dealing with the modification or development of an area if aspects of it are deemed important to bats, such as roosts, flight corridors and foraging areas. Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 habitats of principal importance and 1,150 species of principal importance.

Seven species of bats (soprano pipistrelle, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum*, lesser horseshoe bat, *Rhinolophus hipposideros*, barbastelle *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii* and noctule) are listed under Section 41 of the NERC Act 2006.

4.2 LOCAL BIODIVERSITY ACTION PLAN

Local Biodiversity Action Plans (LBAPs) identify habitat and species conservation priorities at a local level (typically County by County) and are usually drawn up by a consortium of local Government organisations and conservation charities. Although they are no-longer managed at a national level many are still reviewed and updated at a local level.

The Cumbria Biodiversity Action Plan (CBAP) list bats (all species occurring in Cumbria) as the SPI for the county.



5.0 DISCUSSION

5.1 BAT ROOST ASSESSMENT - BUILDINGS

Although no evidence of bat roosting on site was recorded during the daytime bat roost assessment and external inspection, Unit 1A was assessed to offer **low roost suitability** for spring/summer roosting bats. However, this building was not considered to offer potential for use by maternity colonies.

Unit 1A is not considered to be of suitability for hibernating bats.

5.2 BAT EMERGENCE AND RE-ENTRY SURVEYS

An active common pipistrelle day roost was identified within Unit 1A (Roost R1):

• Roost R1 is located at the southern roof corner to B6, with a single egress point gap between the brick wall top and the bitumen roof overlap. A single common pipistrelle was observed using this roost on two occasions (during the dusk emergence survey on 29th July 2021 and during the dawn re-entry survey on 10th September 2021) (see Photograph 2 and Figure 2).

Day roosts are a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer. Roosts used by individual bats / small numbers of common species (not maternity or hibernation sites) are relatively low in significance to local populations and their status is identified to be 'low conservation significance' (English Nature, 2004).

An update survey is recommended in the 2022 survey season to update conditions on site and inform the EPSML.

5.2.1 Potential Impacts

The development proposals, in particular the recladding of the roof will directly impact on Roost R1 through destruction of the roost (permanent loss).

Other PRFs identified during the building assessment survey (gaps in brickwork, etc) will be lost following repairs to the brickwork.

Roosting bats may also be subject to disturbance in the absence of mitigation.

Bats are sensitive to external light spill and the unmitigated introduction of high lux levels may disrupt roosting bats (delaying emergence and potentially resulting in the bats abandoning the roost) and foraging / commuting bats (through displacement of insect concentrations). Some bat species are particularly sensitive to light spill and would avoid using a commuting feature that was subject to light spill.

5.2.2 Mitigation

Roost Loss

As the proposed works will result in the destruction of the common pipistrelle day roost (R1) within Unit 1A, an EPSML must be obtained from NE to permit the refurbishments works to Unit 1A and compensate for the roosting feature lost.

The licence can only be gained once full planning consent has been granted and in order to obtain an EPSML it will be necessary to demonstrate that:



- There are imperative reasons of over-riding public and / or social interest or public health and safety;
- There is no satisfactory alternative to the proposed development; and
- The favourable conservation status of the species in the area will be maintained

It should be noted that an application for an EPSML will need to be supported by relevant survey data from the current/ most recent bat survey season.

Mitigation will be required as part of the EPSML to make sure that:

- Bats are not killed or injured during the works; and
- The development is not detrimental to the favourable conservation status of the populations of the species.

There are a number of licensing options available.

- 1. The standard EPSML route
- 2. Bat Mitigation Class Licence (BMCL) site registration process. The BMCL could be used as the site supports one low conservation value roost of a common species.
- 3. Bat Earned Recognition (BER) Class Licence site registration process. The BER could be used by a Level One or above accredited consultant. This route is only currently available until August 2022.

Full details of the mitigation strategy will be provided within the EPSML method statement or the BMCL/BER site registration and the related class licence conditions and agreed in consultation with the consultants / contractors appointed to undertake the proposed works. At which point it will be possible to provide detailed information relating to the phasing and delivery of works and relevant associated mitigation required. The detailed mitigation strategy will be based in the following principles:

- Appropriate timing of works and appropriate working methods which minimise negative impacts on bats, and avoid bats being killed or injured; and
- Provision of alternative roosting opportunities for the bat species present.

In accordance with the Bat Mitigation Guidelines (English Nature, 2004), the proposed mitigation strategy should be proportionate to the *"type of impact and importance of the population affected"*. As there are only individual / small numbers of common species present roosting on site (not maternity roosts), there is flexibility regarding new roost facilities and timing constraints.

Measures prior to development works starting

Before any works to the building commence, one bat box such as Schwegler 1FF (or equivalent - see Appendix D for options) will be installed on a suitable retained tree in woodland W4 to act as a release site during works.

A toolbox talk must be delivered to site contractors prior to works commencing to outline the presence of bat roosts, the relevant legislation and the working measures to be followed during the works impacting the bat roost.

Measures during development

The roost will be subject to a pre-check with endoscope prior to any works commencing on site. Following the inspection, the identified bat roost will be subject to destructive search under the close supervision of the EPSML Named Ecologist or an Accredited Agent. The bitumen roof overlap to Unit 1A will be removed by hand in anticipation that bats may be present.



It is also recommended that cladding and re-roofing activities conducted on the south-eastern elevation of Unit 1A are conducted under the supervision of a licensed bat ecologist under the EPSML. As compensation, one bat box such as Schwegler 1FF (or equivalent) will be installed in a similar position to the existing roost (i.e. south west corner of Unit 1A). This must then be retained intact and in situ for a minimum of five years.

Timing

As there is no evidence of breeding bats and negligible suitability for hibernacula within Unit 1A, the demolition works can commence any time of year in accordance with the Bat Mitigation Guidelines (English Nature, 2004).

Sensitive Lighting

A sensitive lighting strategy is required to avoid light spill on compensatory roosting features and mitigate disturbance to foraging and commuting bats using in line with the Institute of Lighting Professionals (ILP) Guidance Note 08/8 Bats and artificial lighting in the UK (ILP, 2018).

Low numbers of at two species of bats were recorded using the site or adjacent habitats during the emergence surveys, with common pipistrelle and soprano pipistrelle activity concentrated east and north of the building (near the young woodland W4).

The following control measures should be incorporated into the design to mitigate adverse impacts on foraging and commuting bats using W4:

- LED warm lights will be used, which have no UV output, therefore attracting fewer insects with warmer colours reducing impacts on bats (Stone 2012, 2015a, and 2015b).
- During detailed design of the lighting plan, lux plots will be produced to show predicted lux level change across the site and demonstrate avoidance of external light spill on sensitive features (bat roost and woodland foraging and commuting feature).
- Flood lights will have a dimming feature working alongside the typical timeclock and photocell, in order to keep lux levels as low as possible during the active bat season (March to September inclusive) between dusk and dawn (when bats are emerging and re-entering roosts and during peak foraging times).
- Lighting column height will be kept as low as possible (<4m) in order to keep light directional and below the horizontal line.

5.3 ENHANCEMENT

There is an opportunity to increase the bat roosting provisions on site in accordance with the National Planning Policy Framework (NPPF) in order to 'minimise impacts on biodiversity and provide net gains in biodiversity where possible.

It is recommended that the bat box installed on the retained trees to act as a release site is maintained as enhancement for roosting bats.



REFERENCES

- Collins, J. (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition, The Bat Conservation Trust. London.
- English Nature (2004). Mitchell-Jones, A.J. Bat Mitigation Guidelines, Version January 2004.
- ILP (2018) Bats and artificial lighting in the UK, Guidance Note 08 / 18.
- Stone, E.L., Jones, G., Harris, S. (2012). Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. Glob. Change Biol. 18, 2458–2465.
- Stone, E.L., Harris, S., Jones, G. (2015a). Impacts of artificial lighting on bats: A review of challenges and solutions. Mammal. Biol. 80, 213-219.
- Stone, E.L., Wakefield, A., Harris, S., Jones, G. (2015b). The impacts of new street light technologies: experimentally testing the effects on bats of changing from low-pressure sodium to white metal halide. Philos. T. R. Soc. B. 370, 20140127
- Tetra Tech (2021a) Cleator Moor Innovation Quarter: Bat Roost Assessment. On behalf of Copeland Borough Council. Ref: 784-B029668
- Tetra Tech (2021b) Cleator Moor Innovation Quarter: Ecological Appraisal. On behalf of Copeland Borough Council. Ref: 784-B029668
- WYG (2020) Leconfield Industrial Estate: Ecological Appraisal Report. On behalf of Copeland Borough Council. Ref: A114312

FIGURES

Figure 1 – Site Location Plan

Figure 2 – Bat roost and ground level bat tree assessment summary map













Bat roost and ground level bat tree assessment summary map CMIQ Proposed Hub - Unit 1A



Legend



Site boundary

Buildings

Woodland block

Surveyor location

- V1
- V2
- V3





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APPENDIX A – REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of Copeland Borough Council ("the Client") for the proposed uses stated in the report by Tetra Tech Management Services Limited ("Tetra Tech"). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary, and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including; its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.



APPENDIX B – SELECTED PLANS

Proposed Plan (Drawing ref: CMIQ-NOR-01A-ZZ-DR-A-90002_Rev A03)

Proposed – GA Sections (Drawing ref: CMIQ-NOR-01AZZ-DR-A-00201_Rev A02)



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		SITE	- PROPOSED PLAN	1		
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¹ %	¹ %	¹ %
	PROPOSED MATERIALS	
01	COMPOSITE CLADDING WALL PANELS WIT STRUCTURE WITH NEW BRICK PLINTH AT STANDARD RANGE TO ELEVATIONS AS IN GABLE WALLS AS INDICATED ON PLANS.	TH VERTICAL JOINTS AT 1000MM CENTRES, O BASE OF THE WALL. CONTRASTING COLOUR IDICATED ON DRAWINGS WITH FEATURE PRO
02	REPLACEMENT SERVICE DELIVERY DOOR AND OVER DOORS WITH PPC METAL FRAM SECTIONAL DOOR.	WITHIN EXISTING STRUCTURAL OPENING CO IE AND MIXTURE OF TRANSLUCENT AND PPC
03	NEW WINDOWS COMPRISING PPC ALUMIN OPENING GLAZED LIGHTS AND PPC ALUM METAL EXTERNAL SECURITY SHUTTERS F	IIUM FRAMED WINDOW SYSTEM WITH MIXTU INIUM SPANDREL PANELS. NEW STEEL LINTE REQUIRED.
	REPLACEMENT DOORS WITHIN EXISTING DOORS WITH MATCHING DOOR. PPC MET	STRUCTURAL OPENING COMPRISING PPC ME AL SECURITY DOOR [SECURE BY DESIGN]
	REPLACEMENT DOORS WITHIN EXISTING MATCHING DOOR AND DOUBLE GLAZED V	STRUCTURAL OPENING COMPRISING PPC ME ISION PANELS. PPC METAL EXTERNAL SECUP
06	PPC METAL REPLACEMENT GUTTERS AND POSITIONS TO BE ADJUSTED TO SUIT.	DOWNPIPES TO RECLAD ROOF. BELOW GRO
07	COMPOSITE CLADDING ROOF PANELS AT CLAD OVER EXISTING BUILDING STRUCTU SHOWN ON ROOF PLAN.	1000MM MODULE WITH PROFILED PATTERN N IRE WITH INTEGRATED ROOFLIGHTS WITH M
	UNIT IDENTIFICATION NUMBER + SPACE F	OR TENANT'S SIGNAGE

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	ADDITIONAL INFORMATION FOR BUDGET PRIC	CING
	PROPOSED RECLADDING OF WALLS	
	 Pricing Option 1 = Euroclad Europanel with S5 	5 microrib profile Lite Core 240mm Thick 1000mm wide v
	stock colour to main body of building and cont	rasting colour from Euroclad Bainspan with Bockpanel e
	monufacturers standard active range.	rasting colour from Eurociau nathspart with nockpatiel e
	manufacturers standard colour range. U Value	
	 Pricing Option 2A = Euroclad Europanel with S 	55 microrib profile Lite Core 240mm Thick 1000mm wide
and the first of the second contract of the second s	anthracite stock colour to main body of buildin	g and contrasting colour from manufacturers standard co
	value of 0.17 W/(m2K)	
	 Pricing Option 3A = Furnelad Furneanel with 9 	S5 microrib profile Lite Core 150mm Thick 1000mm wide
	anthracita stock colour to main body of building	a and contracting colour from manufacturore standard or
	antinacity Stock colour to main body of building	y and contrasting colour morn manufacturers standard co
	value of 0.26 w/(m2K)	
	 Pricing Option 2B = Kingspan AWP K1000 wit 	n microrib profile and 140mm thick panel. 1000mm wide
	anthracite stock colour to main body of building	g and contrasting colour from manufacturers standard K
	value of 0.14 W/(m2K)	
	Pricing Option 3B = Kingspan AWP K1000 wit	h microrib profile and 100mm thick panel 1000mm wide
*	anthracito stock colour to main body of buildin	a and contracting colour from manufacturors standard K
·		y and contrasting colour north manufacturers standard K
	value of 0.19 W/(m2K)	
	 Pricing Option 4 = Euroclad Vieo System meta 	al sheet with 240mm Rainspan insulation carrier panel. 4
	with Anthracite signature colour range to main	body of building and contrasting colour. U value of 0.18
	All above systems require top hat or back to b	ack C channel cladding rails fixed back to existing facing
	cladding to other new or evicting cladding role	a fixed to primary structure subject to further input from a
	Meaning to either new or existing cladding fails	s incer to primary structure subject to further input from s
	 wasonry plintns to reciad walls: facing brick + 	cavity incorporating 54mm rigid (below DPC) mineral f
	100mm blockwork; stainless steel ties to cavit	y and to existing masonry walls; DPC's approx. 150mm
	opening jambs and thresholds; foundations to	be extended as required (to be confirmed by structural e
	PROPOSED REGLAUDING OF ROOF TO PLOTS	
	 Pricing Option 1 = Kingspan Quadcore Roofpa 	anel KS1000RW with standard trapezoidal profile 181mm
	with anthracite stock colour. U value of 0.12 W	//(m2K) with Kingspan matching integrated rooflights.
	 Pricing Option 2 = Euroclad Eurobond Boofspi 	an with standard trapezoidal profile 240mm Thick 1000m
	anthracite stock colour 11 value of 0.17 W//m	2K) with Brett Martin rooflights
and the second	Driving Ontion 2 Kingson Overlager Destru	Livy with Digit Martin roomyrits.
	 Pricing Option 3 = Kingspan Quadcore Rootpa 	anel KS IUUUHW with standard trapezoidal profile 131mm
	with anthracite stock colour. U value of 0.18 W	V/(m2K) with Kingspan matching integrated rooflights.
	 Pricing Option 4 = Euroclad Vieo System meta 	al sheet with 240mm Rainspan insulation carrier panel. 4
	with Anthracite signature colour range to main	body of roof U value of 0 18 W/(m2K)
	• All above evetome require removal of evicting	roof finish and fiving of now overam to aviating roof surliv
	All above systems require removal of existing	root mish and hxing of new system to existing root purili
	subject to further input from structural enginee	9 7.
•••••••	 Roof to building linked to 1A to be overlaid with 	h 200mm insulation and single ply membrane, PPC alum
• •. •	cladding	
	LINK BETWEEN 1A AND DETACHED BUILDIN	ŇG
	Square mesh screeps to be relaced with PPC	metal perforated mesh incorporating double gate to an
	- oquate mesh screens to be relaced with pro-	metai periorateu mesii, muurporating uuuble gate to one
	 HOOT TO be overlaid with separating membrane 	e + single ply memorane, PPC aluminium fascias

09 NEW SINLGE PLY MEMBRANE ROOF

10 NEW METAL PROFILED MESH FENCING AND GATE

		GUTTERS
		• Replacement PPC metal guillers and downpipes, guileys and drain connections adapted to suit
		GARAGE DOORS
		 Proposed Garage Doors to be Hormann Industrial Sectional Doors with mixture of translucent and sections. With 67mm thick sections for thermal best loss performance.
	 A second s	 Pricing Option 1 = With Enhanced Hormann ThermoFrame type frame
		Pricing Option 2 = With standard Hormann frame
		PROPOSED WINDOWS AND DOORS
		Thermally broken aluminium frames to windows, incorporating opening lights and PPC aluminium sp
		 PPC metal tramed doors, incorporating double glazed vision panels to personnel entrances PPC steel doors to fire exits and rear doors
	 A state of the sta	• U value of windows and doors Pricing Option $1 = 1.4 \text{ W/(m2K)}$ or better
		• U value of windows and doors Pricing Option 2 = 1.8 W/(m2K) or better
	2	SECURITY SHUTTERS
	¹ ************************************	 Glazed elements (windows and doors) to be protected with external electrically operated PPC steel window/ door assemblies or re-cladding
		BAMPS AND STEPS TO PLOT 1A
		 Existing concrete ramp to double door on front elevation to be replaced with steps and ramp. Steps concrete flags incorporating contrasting nosing edgings, with brick risers. "Corduroy" texture hazard bottom: 800mm x width of steps. Ramps of textured granite aggregate concrete flags with landings
		brick walls to open sides of ramp and steps, to terminate with brick-on-edge coping to form 100mm handrails and guarding to both sides and centre of steps, and to open sides of ramp; stainless steel
		 Existing steps to 2no fire exits to be replaced with new steps and landing including space for wheelc
		of textured granite aggregate concrete flags incorporating contrasting nosing edgings, with brick rise
n		retuges to have min. 30mins fire resistance). 215mm brick walls to open sides of landing and steps, coping to form 100mm high kerbs. Stainless steel handrails and quarding to open side of landings at
		SANITARY AND WELFARE PROVISION TO PLOT 1A
. ***		 Provide 2no rout dramage pop-ups at opposite ends of the building, connected to externation water Provisional sum(s) for 2no. toilet and welfare facilities, to include:
		Doc M toilet pack
		Additional standard height who Mirror
	· · · · · · · · · · · · · · · · · · ·	Walls, door and ceiling/lid to provide enclosure to toilet
		 Kitchen base unit, incorporating stainless steel sink + storage Hot and cold water, power and lighting, mechanical ventilation, assistance alarm etc

PLOT 1A REPAIRS:

		 Allow for re-pointing of low level external brickwork Allow for investigation and repair of cracks to brick Allow for strucutral stiching of cracks to brickwork Replace missing bricks to external wall (c. 5no) Demolish brick bund (c. 3m x 5m x 1m high) and r Isolate and remove all external lighting, alarms etc Allow provisional sum for external sign (unit number EXIT KEEP CLEAR" etc) 	-pointing of low level external brickwork in isolated areas, to ensure stability of wall. vestigation and repair of cracks to brickwork above fire exit doors, goods access doors and rucutral stiching of cracks to brickwork near to main strucutral members issing bricks to external wall (c. 5no) prick bund (c. 3m x 5m x 1m high) and remove concrete base I remove all external lighting, alarms etc. Replace external lighting above all external doors isonal sum for external sign (unit number + space for tenant's sign) – format TBC + external P CLEAR" etc)		
	IN IN	TERNAL WORKS			
		 Make good any existing wall defects before decora 	ating with white dulux durable paint		
		 New PPC removalbe hand rails to pit area 			
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	DATE REVISION REV DR
	30.03.22 FIRST ISSUE A01 AM 3 14.04.22 WORKS TO ADJOINING A02 SM
	AND CLADDING ON ELEVATION
	RAMP MATERIALS REVISED
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EXISTING BUILDING ROM MANUFACTURER'S CTIONS AT CORNERS OF	
RISING INSULATED UP	
TAL PANELS TO	
DF FIXED AND NSTALLED AND PPC	
FRAMED	
FRAME WITH SHUTTERS.	
D DRAINAGE GULLY	
	THIS DRAWING IS SUBJECT TO FULL VERIFICATION BY MEASURED AND
	STRUCTURAL SURVEY, ENGINEERING DESIGN, CONFIRMATION OF BOUNDARIE EASEMENTS AND COVENANTS; FLOOD RISK ASSESMENT, SERVICES AND UTILITIES, TOPOGRAPHICAL SURVEY, ECOLOGY ASSESMENT, CONTAMINATION ASSESMENT, PLANNING / BUILDING CONTROL AND HIGHWAYS APPROVAL, NOT THESE ADDITIONAL REQUIREMENTS ARE NOT EXAUSTIVE.
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mm wide vertical panels /(m2K)	Constructors must only work to figured dimensions
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	Consultants
ers, integrated into new	1999 - The second s
xtured granite aggregate	
ning flags at top and ntrasting colours. 215mm kerbs. Stainless steel	
Irail to side of ramp against	
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APPENDIX C – BUILDING ASSESSMENT RESULTS

Building Reference	Roosting Features / Description	Photo
1A	Gaps behind wooden facias and bitumen roof overlaps; occasional gaps in the brickwork – all elevations. Low suitability.	
1A	Potential gaps in the brickworks / roof top concealed by ivy along the northern elevation. Low suitability	
1A	Small extension to the east. Occasional gaps in the brickworks and above the doors; ventilation gaps and few areas with gaps behind flashing overlap. Low suitability.	



APPENDIX D – MITIGATION AND ENHANCEMENT BOXES

