Cleator Moor Innovation Quarter – Unit 1A

BAT ROOST ASSESSMENT REPORT

784-B034942 Rev 2

Copeland Borough Council

June 2022

Prepared on Behalf of Tetra Tech Management Services Limited.

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Tetra Tech Cockermouth, Lakeland Business Park, Lamplugh Road, Cockermouth, Cumbria, United Kingdom, CA13 0QT
+44 (0)1900 898 600, cumbria@tetratech.com, tetratecheurope.com
Tetra Tech Management Services Limited. Registered in England number: 04807864
Registered Office: 3 Sovereign Square, Sovereign Street, Leeds, United Kingdom, LS1 4ER

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Prepared by: Elizebeth Wilcox		**Checked by** Patryk Gruba	**Approved By:** Candice Howe MCIEEM
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Prepared by: Patryk Gruba		**Checked & Approved By:** Candice Howe MCIEEM	
Description of revision: Addition of the 2022 dusk emergence update survey results.			

CONTENTS

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 in 2021; the Roost R1 was not in use during the survey conducted in May 2022, therefore conditions have not changed.
Recommendations	Unit 1A supports an [infrequently used] day roost of common pipistrelle. This roost is of Low Conservation Significance. Proposals indicate 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.**
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 CL47 Class Licence 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 / baseline information and conduct an update bat dusk emergence survey to update Bat Roost Assessment for the refurbishment of Unit 1A. This building was initially 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 updated by Senior Ecologist Patryk Gruba MCIEEM, 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 northeast 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;
- 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;
- summarise findings of the update bat dusk emergence survey undertaken in May 2022; and
- 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 FIELD SURVEYS 2022

The surveys were completed in accordance with current best practice guidelines given in BCT's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016), hereafter referred to as the BCT Guidelines.

One dusk emergence survey was completed on 19th May 2022 in order to cover all elevation / aspects of Unit 1A and update roosting conditions.

The dusk emergence survey commenced 15 minutes before sunset and continued for 1.5 hours after sunset. The date, type and personnel involved in each of the surveys are provided in Table 1. Table 2 summarises the survey times and weather conditions. Surveyor locations are shown on Figure 2.

Table 1: Date, Survey type and Personnel for the Surveys

Survey	Date	Survey Type	Building Surveyed	Lead Surveyor	Other Surveyors
1	19.05.22	Dusk Emergence	Unit 1A	Patryk Gruba (NE Class 2 licensed bat surveyor, reference 2015-11080-CLS-CLS)	Suzie Collinson Jaime Zarza Bell Katrina Cane

Table 2: Dates, Times and Weather Conditions for the Surveys

Survey	Date	Sunset / Sunrise	Start	Finish	Start Temp (ºC)	End Temp (ºC)	Rain	Wind	Cloud (% cover)
1	19.05.22	21:20	21:05	22:50	11	11	None	2-3	0%

Bat detectors used during the surveys were Elekon Batlogger M, which is a real time, full-spectrum detector, with recording and automatic species identification functions. The recording function was utilised to allow post-recording computer analysis of the bat calls recorded using BatExplorer software, where necessary. *British bat calls: A guide to species identification (Russ, J., 2012)* book was used to aid the bat call sound analysis.

2.3 LIMITATIONS

The dusk emergence survey was completed with the assistance of bat detectors. All survey techniques are subject to bias, and bat detector surveys may under-record species with weak echolocation calls, such as brown long-eared bats *Plecotus auritus*. However, these biases were considered when interpreting the results.

Details of this report are considered to remain valid for one year (i.e. 19th May 2023). Update surveys may be required if works to the buildings have not commenced by this date or if the development proposals upon which this assessment was made change. 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 (with the exception of the BER CL47 Class licence where survey data less than two seasons may be acceptable); therefore, if the EPSML application is to be submitted after April 2023 additional roost characterisation surveys may be required.

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 3.

Table 3: Desk study bat results (only records post 2010 are shown)

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 *Pipistrellus pipistrellus*	2	2011	1 count	1.7 km NE
		2012	Count of more than 5 bats	1.8 km S
Unidentified bat	1	2016	Not specified	1.8 km N

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

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

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).

Relatively 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).

Relatively 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.

3.2 FIELD SURVEYS 2022

Dusk emergence survey Unit 1A – 19th May 2022

During the dusk emergence survey, no bats were observed emerging from Unit 1A

Relatively low to moderate common and soprano pipistrelle activity was observed throughout the survey with the majority of activity concentrated east and north of the building.

Common pipistrelle continuous foraging activity was recorded east and north of the building between 21:42 and 22:50. Occasional common pipistrelle foraging activity was recorded south and west of the building between 22:23 and 22:39. Soprano pipistrelle individual passes were recorded southeast of the building at 21:43, 2:47 and 22:05

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

Roost R1 was 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).

Although no roosting bats were identified within Unit 1A during the 2022 dusk emergence update survey on 19th May, the status of the roost is considered to be infrequently used.

Unit 1A is considered to support an [infrequently used] common pipistrelle day roost.

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).

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 resulting in permanent loss of a low conservation significance roost (of a common, widespread species).

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 one 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 (as detailed in Section 3.0).

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 (common pipistrelle).

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 CL47 Licence site registration process. The BER could be used by a Level One or above accredited consultant. This route is only currently available until the end of 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;
- 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 refurbishment works

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 least 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.

6.0 REFERENCES

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- Tetratech (2021a) Cleator Moor Innovation Quarter: Bat Roost Assessment. On behalf of Copeland Borough Council. Ref: 784-B029668
- Tetratech (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

Site Location Plan

CMIQ Proposed Hub - Unit 1A

Copeland Borough Council

Legend

- Site boundary
- Buildings

Notes:

Drawn by: JB
Checked by: EW
Office: Southampton

Figure No. 1
Revision No. A

0 10 20 30 40 50 Meters

Scale 1:1,000 @A3

25 April 2022

NGR: 301473E 515435N

TETRA TECH

The Pavilion, 1st Floor
Botleigh Grange
Office Campus
Hedge End
Southampton
Hampshire, SO30 2AF

Bat roost and ground level bat tree assessment summary map

CMIQ Proposed Hub - Unit 1A

Copeland Borough Council

Legend

- Site boundary
- Buildings
- Woodland block

Surveyor location

- V1,2021
- V2,2021
- V3,2021
- V1,2022
- Common pipistrelle roost

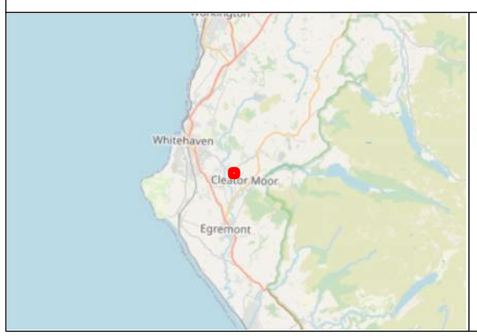
Notes:

Drawn by: CD
Checked by: PG
Office: Southampton

Figure No. 2
Revision No. B

0 10 20 30 40 50 Meters
Scale 1:1,000 @A3

25 May 2022
NGR: 301473E 515435N



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APPENDIX A – REPORT CONDITIONS

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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.

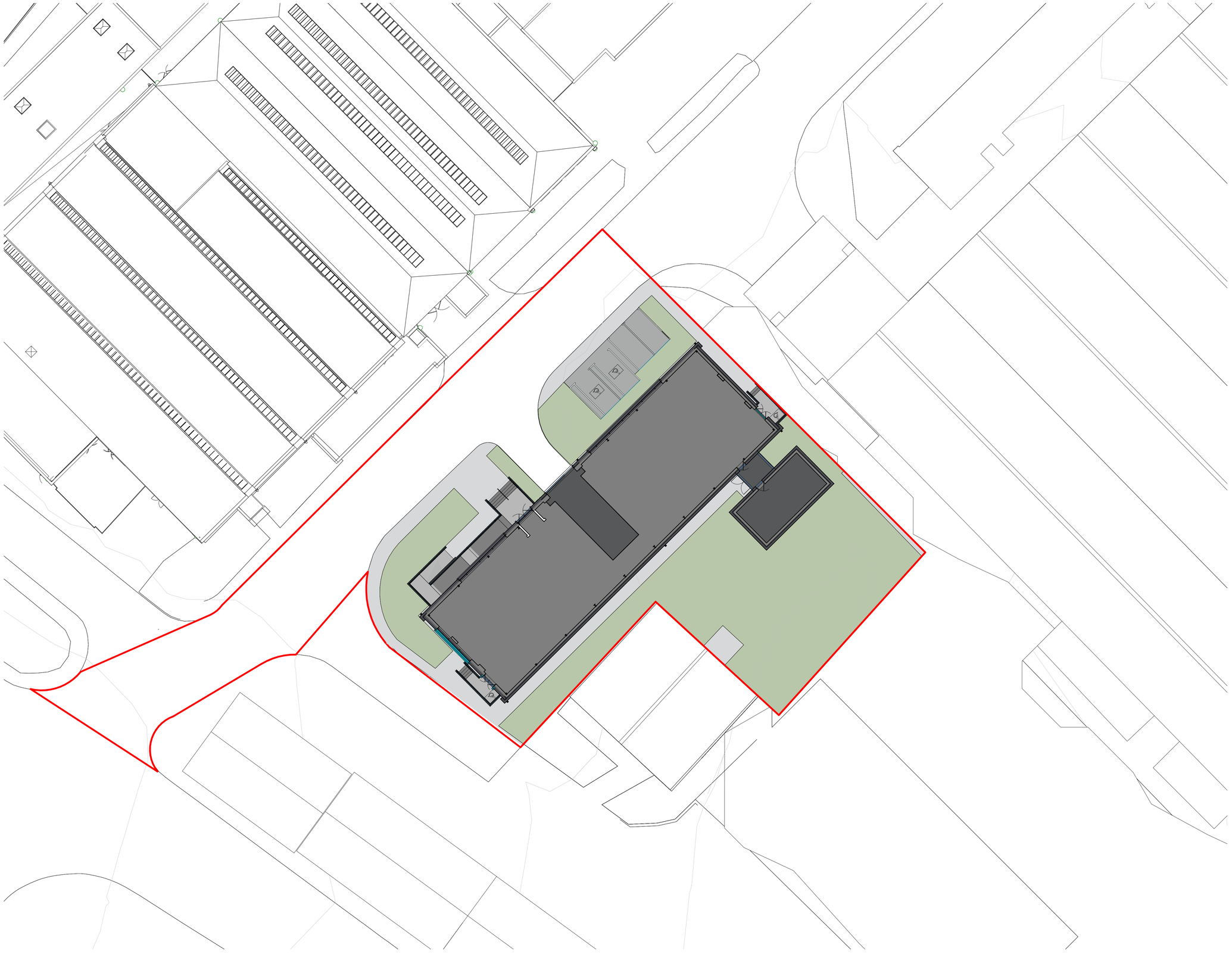
The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final 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)

ISO A1 - 594mmx841mm



SITE PLAN PROPOSED

SCALE: 1 : 200

0 1 2 4 6 10 m

DATE	REVISION	REV	DR	CH
30.03.22	FIRST ISSUE	A01	AM	SM
01.04.22	LANDSCAPE REVISIONS	A02	JS	DK
14.04.22	RED LINE AMENDMENT	A03	JS	DK

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ANY DISCREPANCIES ON THESE DRAWINGS ARE TO BE HIGHLIGHTED TO THE ARCHITECT IMMEDIATELY. DO NOT SCALE FROM THESE DRAWINGS. IF IN DOUBT PLEASE REQUEST CLARIFICATION.

Keyplan

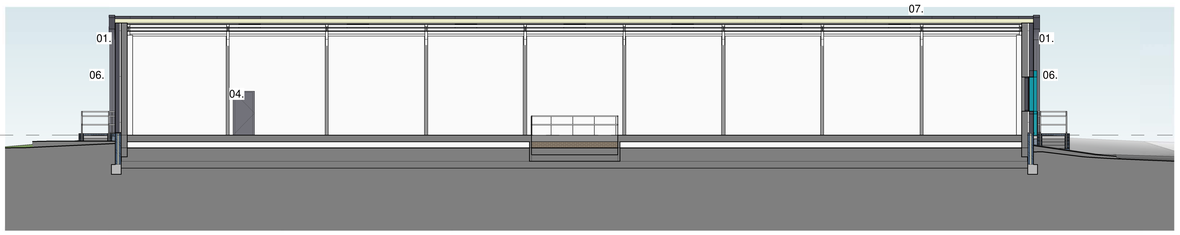
True North

NORR

NORR Consultants Limited.
An Ingenium International Company

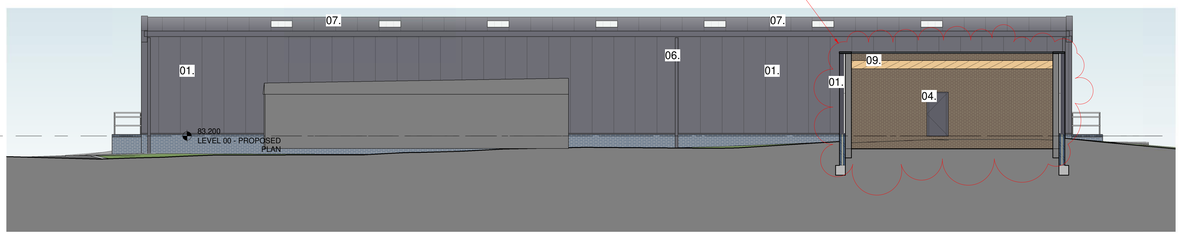
Percy House, 8th Floor Percy Street,
Newcastle NE1 4PW
England, UK
norr.com

Drawn AM	Date 28.03.22
Checked CP	Date 28.03.22
Scale 1 : 200 @ A1	
Client COPELAND BOROUGH COUNCIL	
Project CLEATOR MOOR INNOVATION QUARTER - PLOT 1A	
Drawing Title SITE - PROPOSED PLAN	
Sheet Status S3 - FOR REVIEW	
Project No. IANC21-0043	
Drawing No. CMIQ-NOR-01A- ZZ-DR-A-90002	Rev. A03



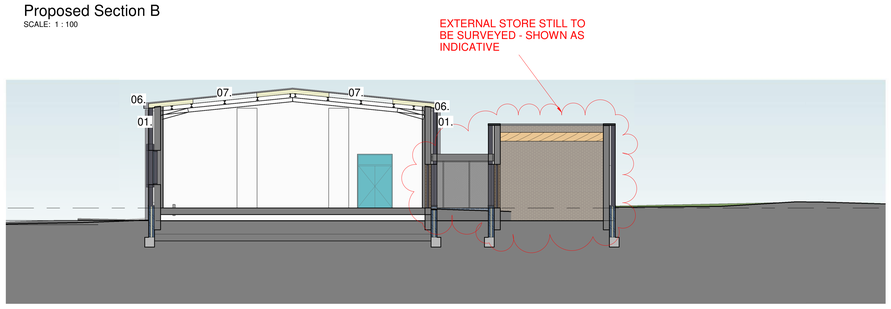
Ground Floor
83775 mm

Proposed Section A
SCALE: 1 : 100



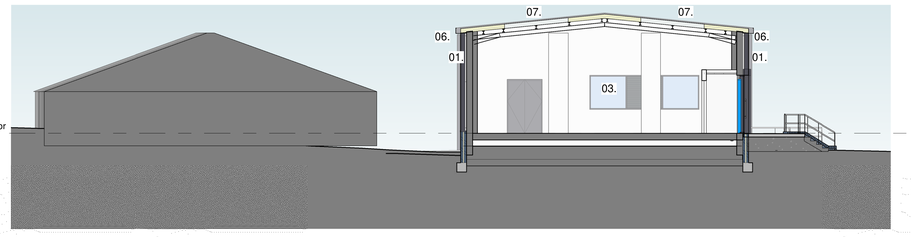
Ground Floor
83775 mm

Proposed Section B
SCALE: 1 : 100



Ground Floor
83775 mm

Proposed Section C
SCALE: 1 : 100



Ground Floor
83775 mm

Proposed Section D
SCALE: 1 : 100

PROPOSED MATERIALS

01 COMPOSITE CLADDING WALL PANELS WITH VERTICAL JOINTS AT 1000MM CENTRES, OVER EXISTING BUILDING STRUCTURE WITH NEW BRICK PLINTH AT BASE OF THE WALL. CONTRASTING COLOURS FROM MANUFACTURER'S STANDARD RANGE TO ELEVATIONS AS INDICATED ON DRAWINGS WITH FEATURE PROJECTIONS AT CORNERS OF GABLE WALLS AS INDICATED ON PLANS.

02 REPLACEMENT SERVICE DELIVERY DOOR WITHIN EXISTING STRUCTURAL OPENING COMPRISING INSULATED UP AND OVER DOORS WITH PPC METAL FRAME AND MIXTURE OF TRANSLUCENT AND PPC METAL PANELS TO SECTIONAL DOOR.

03 NEW WINDOWS COMPRISING PPC ALUMINIUM FRAMED WINDOW SYSTEM WITH MIXTURE OF FIXED AND OPENING GLAZED LIGHTS AND PPC ALUMINIUM SPANDREL PANELS. NEW STEEL LINTELS INSTALLED AND PPC METAL EXTERNAL SECURITY SHUTTERS REQUIRED.

04 REPLACEMENT DOORS WITHIN EXISTING STRUCTURAL OPENING COMPRISING PPC METAL FRAMED DOORS WITH MATCHING DOOR. PPC METAL SECURITY DOOR [SECURE BY DESIGN]

05 REPLACEMENT DOORS WITHIN EXISTING STRUCTURAL OPENING COMPRISING PPC METAL FRAME WITH MATCHING DOOR AND DOUBLE GLAZED VISION PANELS. PPC METAL EXTERNAL SECURITY SHUTTERS.

06 PPC METAL REPLACEMENT GUTTERS AND DOWNPIPES TO RECLAD ROOF. BELOW GROUND DRAINAGE GULLY POSITIONS TO BE ADJUSTED TO SUIT.

07 COMPOSITE CLADDING ROOF PANELS AT 1000MM MODULE WITH PROFILED PATTERN WITHIN EACH MODULE, CLAD OVER EXISTING BUILDING STRUCTURE WITH INTEGRATED ROOFLIGHTS WITH MATCHING PROFILE AS SHOWN ON ROOF PLAN.

08 UNIT IDENTIFICATION NUMBER + SPACE FOR TENANT'S SIGNAGE

09 NEW SINLGE PLY MEMBRANE ROOF

10 NEW METAL PROFILED MESH FENCING AND GATE

ADDITIONAL INFORMATION FOR BUDGET PRICING

PROPOSED RECLADDING OF WALLS
- Pricing Option 1 = Euroclad Europanel with S5 microrib profile Lite Core 240mm Thick 1000mm wide vertical panels with anthracite stock colour to main body of building and contrasting colour from Eurocladd Rainspan with Rockpanel external facing from manufacturers standard colour range. U value of 0.17 to 0.18 W/(m2K)
- Pricing Option 2A = Eurocladd Europanel with S5 microrib profile Lite Core 240mm Thick 1000mm wide vertical panels with anthracite stock colour to main body of building and contrasting colour from manufacturers standard colorcoat prisma range. U value of 0.17 W/(m2K)
- Pricing Option 3A = Eurocladd Europanel with S5 microrib profile Lite Core 150mm Thick 1000mm wide vertical panels with anthracite stock colour to main body of building and contrasting colour from manufacturers standard colorcoat prisma range. U value of 0.26 W/(m2K)
- Pricing Option 2B = Kingspan AWP K1000 with microrib profile and 140mm thick panel. 1000mm wide vertical panels with anthracite stock colour to main body of building and contrasting colour from manufacturers standard Kingspan Colour Range. U value of 0.14 W/(m2K)
- Pricing Option 3B = Kingspan AWP K1000 with microrib profile and 100mm thick panel. 1000mm wide vertical panels with anthracite stock colour to main body of building and contrasting colour from manufacturers standard Kingspan Colour Range. U value of 0.19 W/(m2K)
- Pricing Option 4 = Eurocladd Vieo System metal sheet with 240mm Rainspan insulation carrier panel. 454mm wide vertical panels with Anthracite signature colour range to main body of building and contrasting colour. U value of 0.18 W/(m2K)
- All above systems require top hat or back to back C channel cladding rails fixed back to existing facing brick or through existing cladding to either new or existing cladding rails fixed to primary structure subject to further input from structural engineer
- Masonry plinths to reclad walls: facing brick + cavity incorporating 54mm rigid (below DPC) mineral fibre insulation + inner leaf of 100mm blockwork; stainless steel ties to cavity and to existing masonry walls; DPC's approx. 150mm above GL, and to door opening jambs and thresholds; foundations to be extended as required (to be confirmed by structural engineer);

PROPOSED RECLADDING OF ROOF TO PLOTS 20A+B AND 1A
- Pricing Option 1 = Kingspan Quadcore Roofpanel KS1000RW with standard trapezoidal profile 181mm Thick 1000mm wide panels with anthracite stock colour. U value of 0.12 W/(m2K) with Kingspan matching integrated rooflights.
- Pricing Option 2 = Eurocladd Eurobond Roofspan with standard trapezoidal profile 240mm Thick 1000mm wide panels with anthracite stock colour. U value of 0.17 W/(m2K) with Brett Martin rooflights.
- Pricing Option 3 = Kingspan Quadcore Roofpanel KS1000RW with standard trapezoidal profile 131mm Thick 1000mm wide panels with anthracite stock colour. U value of 0.18 W/(m2K) with Kingspan matching integrated rooflights.
- Pricing Option 4 = Eurocladd Vieo System metal sheet with 240mm Rainspan insulation carrier panel. 454mm wide vertical panels with Anthracite signature colour range to main body of roof. U value of 0.18 W/(m2K).
- All above systems require removal of existing roof finish and fixing of new system to existing roof purlins fixed to primary structure subject to further input from structural engineer.
- Roof to building linked to 1A to be overlaid with 200mm insulation and single ply membrane, PPC aluminium copings to new cladding

LINK BETWEEN 1A AND DETACHED BUILDING
- Square mesh screens to be relaced with PPC metal perforated mesh, incorporating double gate to one side
- Roof to be overlaid with separating membrane + single ply membrane, PPC aluminium fascias

GUTTERS
- Replacement PPC metal gutters and downpipes, gulleys and drain connections adapted to suit

GARAGE DOORS
- Proposed Garage Doors to be Hormann Industrial Sectional Doors with mixture of translucent and solid sections as shown on elevations. With 67mm thick sections for thermal heat loss performance.
- 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 spandrel panels
- PPC metal framed doors, incorporating double glazed vision panels to personnel entrances
- PPC steel doors to fire exits and rear doors
- U value of windows and doors Pricing Option 1 = 1.4 W/(m2K) or better
- U value of windows and doors Pricing Option 2 = 1.8 W/(m2K) or better

SECURITY SHUTTERS
- Glazed elements (windows and doors) to be protected with external electrically operated PPC steel shutters, integrated into new window/ door assemblies or re-cladding

RAMPS AND STEPS TO PLOT 1A
- Existing concrete ramp to double door on front elevation to be replaced with steps and ramp. Steps of textured granite aggregate concrete flags incorporating contrasting nosing edgings, with brick risers. "Corduroy" texture hazard warning flags at top and bottom: 800mm x width of steps. Ramps of textured granite aggregate concrete flags with landings in contrasting colours. 215mm brick walls to open sides of ramp and steps, to terminate with brick-on-edge coping to form 100mm high kerbs. Stainless steel handrails and guarding to both sides and centre of steps, and to open sides of ramp; stainless steel handrail to side of ramp against building.
- Existing steps to 2no fire exits to be replaced with new steps and landing including space for wheelchair refuge. Steps and landing of textured granite aggregate concrete flags incorporating contrasting nosing edgings, with brick risers.Walls and doors adjacent to refuges to have min. 30mins fire resistance). 215mm brick walls to open sides of landing and steps, to terminate with brick-on-edge coping to form 100mm high kerbs. Stainless steel handrails and guarding to open side of landings and to both sides of steps.

SANITARY AND WELFARE PROVISION TO PLOT 1A
- Provide 2no foul drainage pop-ups at opposite ends of the building, connected to external foul water drainage system.
- Provisional sum(s) for 2no. toilet and welfare facilities, to include:
  - Doc M toilet pack
  - Additional standard height whb
  - 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

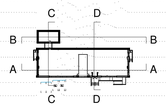
PLOT 1A REPAIRS:
- Allow for re-pointing of low level external brickwork in isolated areas, to ensure stability of wall.
- Allow for investigation and repair of cracks to brickwork above fire exit doors, goods access doors and isolated high level areas.
- Allow for strucutral stiching of cracks to brickwork near to main strucutral members
- Replace missing bricks to external wall (c. 5no)
- Demolish brick bund (c. 3m x 5m x 1m high) and remove concrete base
- Isolate and remove all external lighting, alarms etc. Replace external lighting above all external doors
- Allow provisional sum for external sign (unit number + space for tenant's sign) – format TBC + external statutory signage (eg:"FIRE EXIT KEEP CLEAR" etc)

INTERNAL WORKS
- Make good any existing wall defects before decorating with white dulux durable paint
- New PPC removalbe hand rails to pit area

0 1 2 3 4 5 m

DATE	REVISION	REV	DR	CH
30.03.22	FIRST ISSUE	A01	AM	SM
14.04.22	WORKS TO ADJOINING BUILDING AND LINK ADDED; SIGNAGE ADDED; WINDOW AND CLADDING ON ELEVATION C RE-ALIGNED; STEP AND RAMP MATERIALS REVISED	A02	SM	DK

Keyplan



North Arrow

Consultants

NORR
NORR Consultants Limited.
An Ingenium International Company

Percy House, 8th Floor Percy Street,
Newcastle NE1 4PW
England, UK
norr.com

Drawn: AM	Date: 25.03.22
Checked: CP	Date: 25.03.22
Scale: As indicated @ A0	
Client: COPELAND BOROUGH COUNCIL	
Project: CLEATOR MOOR INNOVATION QUARTER - PLOT 1A	
Drawing Title: PROPOSED - GA SECTIONS	
Sheet Status: S3 - FOR REVIEW	
Project No.: IANC21-0043	
Drawing No.: CMIQ-NOR-01A-ZZ-DR-A-00201	Rev.: A02

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

Vivara Pro Chillon Low Profile WoodStone® Bat Box	
1FF Schwegler	
Schwegler 2F General purpose