

FLOOD RISK ASSESSMENT

Change of use from hotel to holiday lets:
includes ground floor sleeping;
appropriate given operation and tidal
setting based on EA guidance

No persons need to be at the site

at:

- Site on the edge of EA Flood Zone 3 Tidal defended but LOW hazard
- Bedrooms at ground with access to upper areas is considered appropriate in this flood setting
- REDUCE FLOOD RISK OVERALL: flood resilience and resistance to address future risk as a precaution
 - **Results in better protected and flood future-proofed properties for the lifetime of the scheme**

at:

201 PROMENADE, BLACKPOOL, FY1 5DL

August 2021

ARK Ltd

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1.0 Scope

This report contains the details of a Flood Risk Assessment carried out by Ark Environmental Consultancy Limited (“ARK Ltd”) for 201 PROMENADE, BLACKPOOL FY1 5DL, henceforth referred to as “the site” in this report.

This report has been prepared for Francesca Gallagher, and must not be relied upon by any other party without the explicit written permission of ARK Ltd. All parties to this report do not intend any of the terms of the Contracts (Right of Third Parties Act 1999) to apply to this report. Please note this report does not purport to provide definitive legal advice nor can it be used to demonstrate that the site will never flood in the future. The Executive Summary contains an overview of key findings and conclusions. However, no reliance should be placed on the Executive Summary until the whole of the report has been read. Other sections of the report may contain information which puts into context the findings noted within the Executive Summary.

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2.0 Executive Summary

This FRA has been carried out in accordance with the National Planning Policy Framework (NPPF) & NPPG. It is to be used to assist the Local Planning Authority (LPA) and Environment Agency (EA) when considering the flooding issues of the proposed development as part of a planning application.

The proposed development comprises: convert existing hotel to holiday lets; access & egress on Princess Street: no hazard.

- Site on the edge of FZ3 / FZ2 TIDAL: NPPF & PPG appropriate
- No permanent residential use
- Bedrooms on ground with access to upper floors in emergency is considered appropriate in this flood setting
 - EA data support this given inundation time and hazard levels
- No flood compensation or SUDS required given change of use / scope of scheme
- REDUCES FLOOD RISK OVERALL: new modern flood resilience / resistance
- Access / Egress and evacuation remain in NO hazard for lifetime of the scheme
- **Results in better protected and flood future-proofed property than existing**
- **Operation as non-residential and upper access is appropriate for the lifetime of the scheme based on EA data**

Scheme is categorized as “More Vulnerable” development in FZ2 / FZ3 tidal adjacent to FZ1, this report considers the NPPF Exception Test is passed.

Given the residual risk flood setting and type of scheme, the level, extent and depth of flooding on the site can be managed in terms of modern resilient measures for the lifetime of the development.

Based on the likely flooding risk and small scale of the proposed development, it is considered that the proposed development can be constructed and operated safely in flood risk terms, without increasing flood risk elsewhere; it is therefore considered appropriate development in accordance with the NPPF/PPG.

3.0 Introduction

The FRA combined a desktop study, review of available information, consultations and an assessment of all sources of flooding posed to and from the site and proposed development, in accordance with National Planning Policy Framework (NPPF). Appropriate flood mitigation measures were then considered, either as already incorporated within the scheme or recommended for inclusion at detailed design stage. The suitability of the proposed development was also reviewed in the context of the NPPF and the technical guidance accompanying the NPPF.

4.0 Purpose of the Report

This FRA has been carried out in accordance with National Planning Policy Framework (NPPF). It is to be used to assist the Local Planning Authority (LPA) and Environment Agency (EA) when considering the flooding issues of the proposed development as part of a planning application.

The report provides the following information:

- An assessment of the flood risk posed to the site based on flood information and mapping provide by the EA and Strategic Flood Risk Assessment (SFRA);
- An assessment of the proposed development in terms of surface water run-off; and
- Proposals for measures to mitigate the flood risks posed to and from the development where appropriate.

5.0 Report Information Sources

The information source used to undertake this FRA has been collected from the following sources:

- British Geological Survey Website & iGeology App
- EA Website & Data
- Blackpool Council Strategic Flood Risk Assessment (Joint) (2018 and as updated);
- Blackpool Council as the Lead Local Flood Authority (LLFA) SUDS Guidance as applicable
 - Internet mapping and searches.

6.0 Consultation

The EA have been consulted and their data requested and used as appropriate; the report follows the recommendations of previously approved similar reports for LLFA's.

7.0 Overview of British Legislation

7.1 National Planning Policy

The National Planning Policy Framework (NPPF) 2019 and PPG 2018 supercede all Planning Policy Statements (PPS's) and remaining Planning Policy Guidance (PPG's). Flood risk is retained as a key development consideration. The Sequential and Exception Tests are retained as part of the NPPF. The accompanying NPPF Technical Guidance also includes Tables 2 and 3 to assist with flood risk vulnerability classifications and development suitability.

7.2 Local Policy

Local Authorities (as amended) consider flood risk through relevant environmental and climate change policies which enforce the requirements of the NPPF and PPG.

The Strategic Flood Risk Assessment (SFRA) and Preliminary Flood Risk Assessment (PFRA) are key sources of flood risk specific information for the area. These provides a more detailed review of flood risks and recommendations for ensuring developments can be constructed and operated safely in accordance with the NPPF. Greater detail is provided in the report where appropriate.

Key policies for the LLFA:

- SFRA
 - FRA to demonstrate no risks posed to or from the scheme (NPPF compliance)
 - Appropriate evacuation in different flood scenarios (standard EA requirement)
 - Promoting drainage devices to minimize sewer flooding to properties (standard building regulations / technique) most usually associated with full new builds
 - Even if no increase in impermeable areas for minor / small footprint extensions: there is a need to demonstrate betterment for all footprint

8.0 Site Status and Environmental Setting

8.1 Site Location and Status

The site is c. 0.01 hectares. See Appendix A for Location.

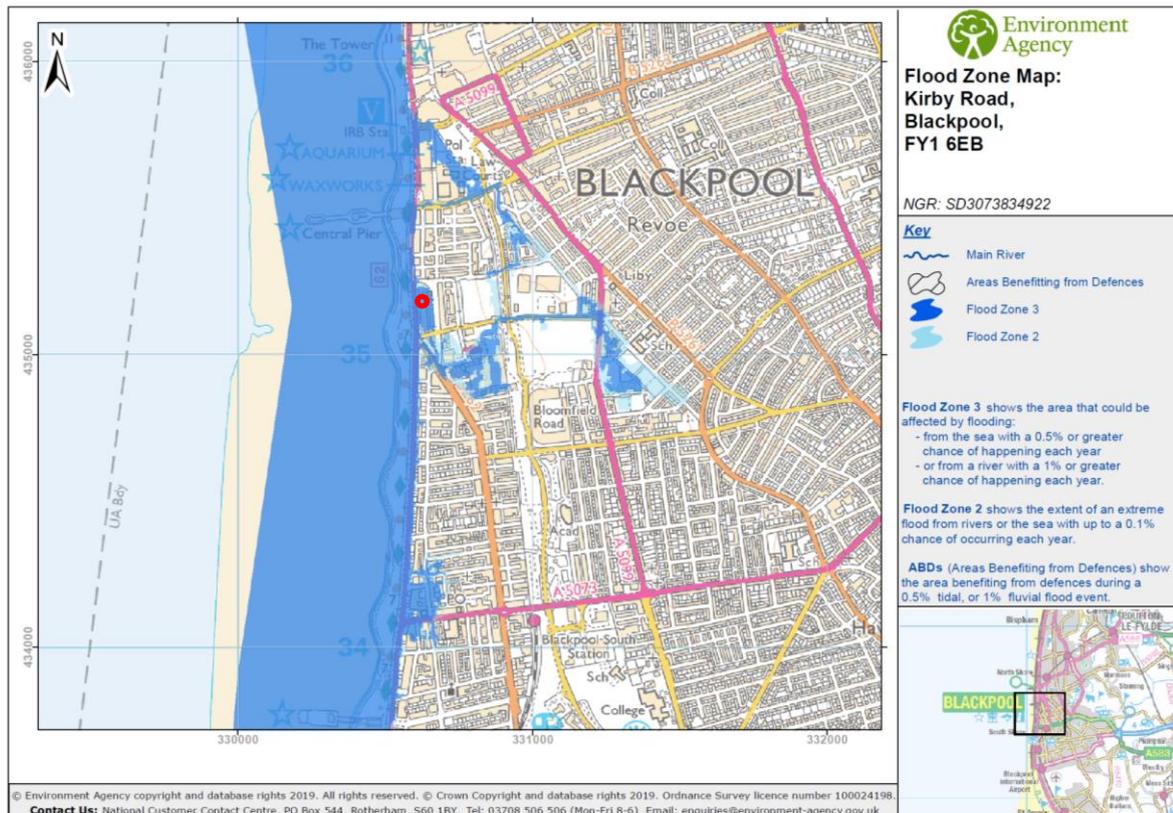
8.2 Current Site Description

The following description is based on information made available from internet mapping and aerial photography.

The site is currently occupied by an existing hotel.

8.2 Existing Flood Risk

Flood Sources	Site Status	Comment on flood risk posed to / from the development
Fluvial / Tidal	Site is on the edge of Flood Zone FZ3 / FZ2 TIDAL Defended Adjacent to FZ1 with immediate access to unrestricted FZ1 Tidal is principal design flood event NOT high risk	Ground floor holiday use bedrooms are appropriate in this flood setting given far extent of tidal floodplain No basement habitable areas = no highly vulnerable site uses No increase in impermeable areas No flood compensation required in tidal floodplain Existing operation considered appropriate All access to upper levels above extreme event for the lifetime of the scheme
Groundwater	SFRA mapping indicates site not in area of groundwater flooding.	The proposed development will not increase the risk of groundwater flooding. Very Low Risk
Artificial Sources	No artificial sources within 250m with pathways to the site	Low Risk
Surface Water / Sewer Flooding	Site is in NO hazard in EA high risk scenario Condition, depth and location of surrounding infrastructure uncertain	No increase in impermeable areas. New modern flood resilience / resistance Development will utilise existing connection to sewers, gravity drainage Addition of non-return valves as required Development will not significantly increase the peak flow or volume of discharge from the site: Low Risk: No further drainage assessment required as part of the FRA
Climate Change & new allowances	Included in the flood modelling extents Site not within climate change flood extent area	Development will not significantly increase the peak flow and volume of discharge from the site Low risk posed to and from the development





EA Site Specific Flood Mapping

The EA have provided their data.

Site not inundated in the historic events of the 5th December 2013

CRITICAL

- Site is not inundated in the undefended scenarios, until the 0.5% + cc



Relevance of Tidal Flooding to conversion scheme

Can the scheme operate safely based on the designs?

Answer: Yes: based on the operations of a holiday let and the EA data and the flood setting being on the edge of FZ3/FZ2 tidal with immediate access to FZ1:

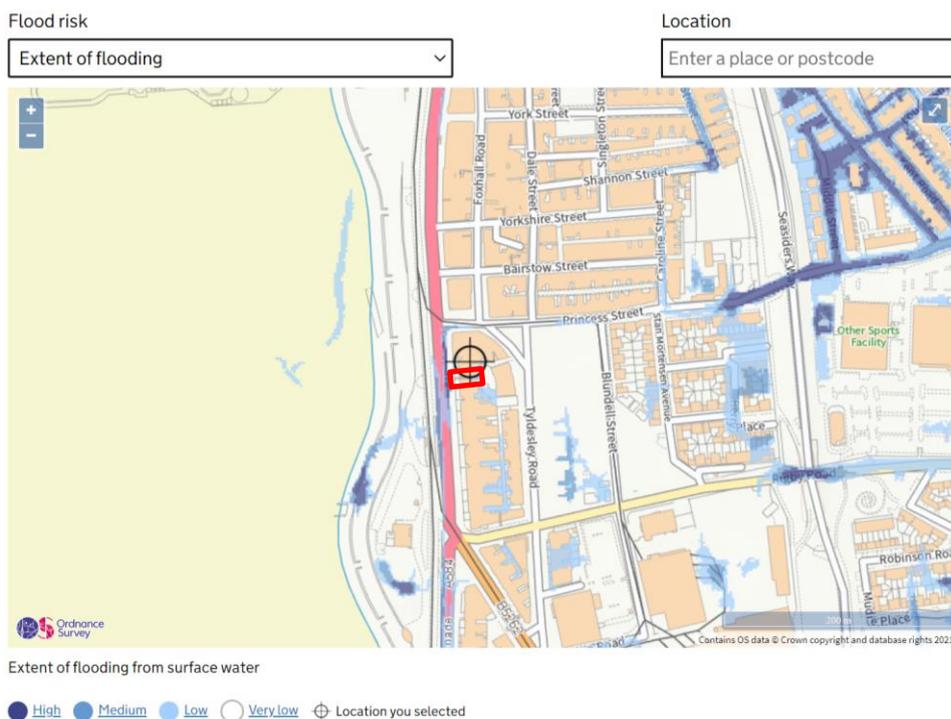
Summary:

- Site is NOT in a rapid inundation zone: site is on the edge of the floodplain with appropriately zero / shallow flood depths at ground level
- The suitability is demonstrated by the design and operation of the scheme
- No basement self-contained flats: this is the correct approach given the future undefended scenarios
- Tidal flooding
- No additional raising of ground floor levels for this tidal setting with advanced warning

The likely hazard levels of the tidal flood levels have been used to inform the flood response and evacuation plan: i.e. to direct people through lowest hazard areas to closest area of NO hazard.

EA 2021 Surface Water Hazard

- Site is in NO hazard in EA's high risk scenario
- Site is adjacent to / within very patchy part LOW surface water hazard area within EA's low risk scenario
- Critical: appropriate design response for change of use schemes is to:
 - ensure modern flood resilience



Can the scheme operate safely?

It is acknowledged that the flood point based data vs scheme means that the flood level is above the ground level, such that, yes, there would be flooding in the extreme event.

However: the site is at the far extent of the extreme tidal flood extents.

The correct approach for the assessment is the specifics and the operational suitability:

- **No persons need to be on the site; no permanent residential uses**
- **First floor accessible to all users in emergency is above c. 9.5mAOD which is easily c. 2.0m above the extreme flood event**

Regardless of the shallow flood depths adjacent to the site, tidal flood events have well advanced meteorological warning time spans and the route to FZ1 is short and to unrestricted FZ1.

There is also immediate access to FZ1 through lower hazard areas.

There would be plenty of time to evacuate and access / egress is to immediate FZ1 which, given this is change of use, is considered an appropriate lifetime precautionary measure.

9.0 Assessment of Proposed Development

9.1 Proposed Development

The proposed development can be seen in Appendix B.

The proposed development comprises:

- Convert existing hotel to holiday lets; access & egress on Princess Street: no hazard
- All access to the first floor above the extreme event
- First floor accessible to all users in emergency is at c 9.5mAOD which is easily c. 2.0m above the extreme flood event
- Results in better protected and flood future-proofed properties

REDUCES FLOOD RISK OVERALL:

- Resilient measures (see later sections) i.e. waterproofing to industry standards
- No SUDS or flood compensation required

Given the flood hazard setting: additional raised floor levels are not considered necessary.

Dry access to upper levels is inherent for all site users for the lifetime of the development is achievable.

Drainage

- The existing connections will be retained.
- To meet standard policy:
 - Non-return valves on all new units / connections if new elements are added

Additional Mitigation

Tidal / part fluvial

- Already resilience and resistance incorporated. No additional design mitigation is required.

Surface Water

- Precautionary only (not necessary):
 - Not required but: waterproofed entrance system where feasible would be a sensible approach to address residual surface water hazard for this scheme

9.2 Flood Resilience

The proposed development will utilize the flood resilient techniques recommended in the NPPF Technical Guidance where appropriate and also the recommendations that have previously been issued by various councils.

The FRA provides the recommended resilient measures that can be incorporated; it will depend on the construction team as to what construction will actually need to be undertaken and exact specifications required.

This does not invalidate the points and recommendations of this FRA. The FRA cannot simply specify the exact measures; they are not required of planning.

BUT:

If any of these elements are required to be newly installed on the lower and upper ground floors as part of the scheme they will be constructed following the resilience guidance.

The following are to be applied / used:

Construction Elements:

- Non-return valves will be retrofitted if not incorporated already
- Any air bricks at low level will be replaced with flood-proof air bricks.
- Building materials that are suitable for a 'water entry strategy' will be used which include sacrificial or easily removable external finishes or internal linings.

If new required on the ground floor: Equipment / Wiring

- Electric Points raised to high as feasible
- Use low smoke halogen free (LSHF) type twin and earth cables rather than PVC cables and solid conductors rather than stranded conductors.
- Any new ground floor boilers and ancillary wiring (programmer and stats) will all be located as high within the ground floor level as feasible: aim to be above 8.5mAOD i.e. 1.5m above ground level which is above the extreme event
- Wiring for telephone, TV, Internet and other services will be protected by suitable insulation to minimise damage.

And in general for this type of conversion build, where any of the below elements are required to be retrofitted / new required

- Waterproofing to be installed to above ground level as appropriate
- Plasterboards will be installed in horizontal sheets on rather than conventional vertical installation methods to minimise the amount of plasterboard that could be damaged in a flood event
- Any wood fixings on basement / ground floor will be robust and/or protected by suitable coatings in order to minimise damage during a flood event
- Any new Damp Proof Membrane and ground waterproofing will be installed above the main floor slab and tied in to the walls where appropriate, to reduce the turnaround time for returning the property to full operation after a flood event.

9.3 Refuge and Evacuation

The site is on the edge of FZ3 Tidal.

Access / egress is immediately to lower hazard and FZ1.

The site users should sign up to the EA flood warnings (well advanced given tidal).

In emergency: all site users have access to a floor that is at least 1.0metres above the extreme flood height: lowest is the upper ground floor which is at 7.6mAOD.

Recommended Evacuation Route

- All exit using main access / egress to Promenade
- Continue north to reach Princess Street and continue east to reach A5099: all in lowest hazard and majority in unrestricted FZ1

The residual risk of surface water flooding has been appropriately addressed using flood resilient designs for the new build.



There is no need for any occupant to have to walk through flood waters as there is no need to evacuate; no further flood response plan is required.

9.4 Annual Monitoring

It is recommended that future site users should contact the EA on an annual basis to confirm the flood status of the property.

If the flood status has changed, the evacuation and refuge plan should be reviewed and updated by suitable flood risk consultants as appropriate.

9.5 Flood Risk Vulnerability

According to the NPPF/PPG retained Flood Risk Vulnerability Classification, the scheme would be classified as “More Vulnerable.”

The NPPF also retained Flood Risk Vulnerability and Flood Zone “Compatibility” Classification; this states that a “More Vulnerable” development in Flood Zone 3 is appropriate but with the need to pass the Exception Test.

Based on the data reviewed to date, the flood risk assessment recommends the scheme could

be constructed and operated safely in flood risk terms without increasing flood risk elsewhere.

This report considers and demonstrates the scheme has passed the Exception test.

10.0 Conclusion

The site is considered to be generally at a low risk from all sources of flooding except the potential future extreme residual surface water hazard.

The proposed development is categorised as “Less Vulnerable” in accordance with the NPPF; it is therefore an appropriate type of development with this report demonstrating the Exception Test can be passed.

- Edge of Tidal flood extents: safe operation for non residential ground bedrooms with access to first floor also as a emergency back-up
- REDUCES FLOOD RISK OVERALL:
 - new modern flood resilience / resistance
- Results in better protected and flood future-proofed property than existing
- Operation as non-residential and upper access is appropriate for the lifetime of the scheme based on EA data

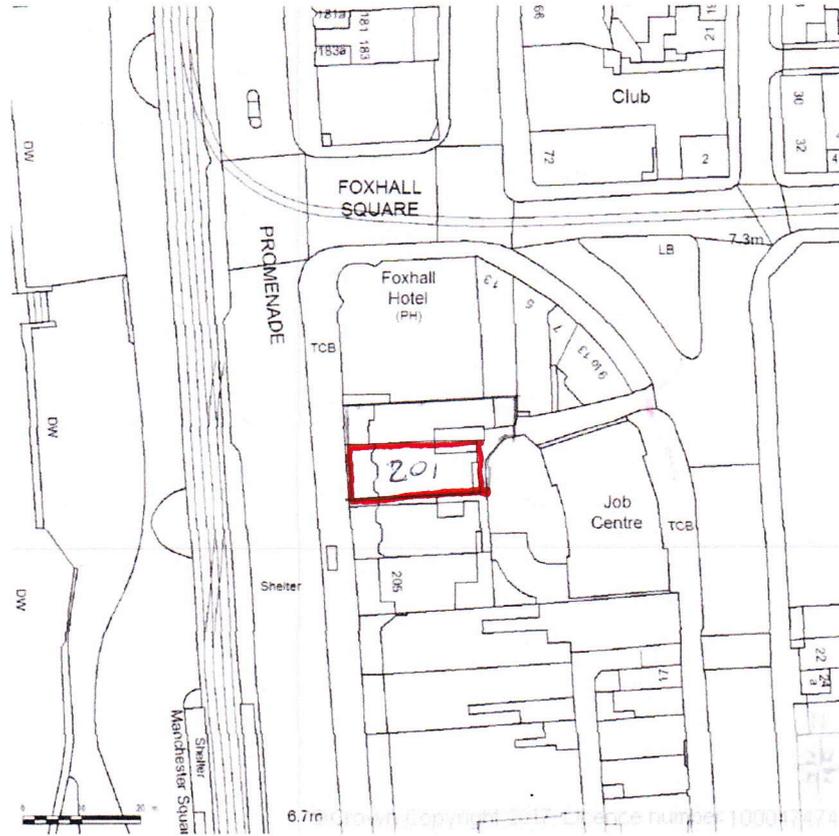
Based on the likely flooding risk, it is considered that the proposed development can be constructed and operated safely in flood risk terms, without increasing flood risk elsewhere and is therefore appropriate development in accordance with the NPPF / PPG.

11.0 Appendices

- A Location and Existing Layout
- B. Proposed Floor Plans

Appendix A

SITE LOCATION PLAN
AREA 2 HA
SCALE 1:1250 on A4
CENTRE COORDINATES: 330622, 435222



Supplied by Streetwise Maps Ltd
www.streetwise.net
Licence No: 100047474
22/05/2017 15:17

General Notes

CDM REGULATIONS 2015
 The client must abide by the Construction Design and Management Regulations 2015. The client must appoint a contractor, if more than one contractor is to be involved, the client will need to appoint (in writing) a principal designer (to plan, manage and coordinate the planning and design work) and a principal contractor (to plan, manage and coordinate the construction and ensure there are arrangements in place for managing and organising the project).

Domestic clients
 The domestic client is to appoint a principal designer and a principal contractor when there is more than one contractor, if not your duties will automatically transferred to the contractor or principal contractor.

The designer can take on the duties, provided there is a written agreement between you and the designer to do so.

The Health and Safety Executive is to be notified as soon as possible before construction work starts if the works:

- (a) Last longer than 30 working days and has more than 20 workers working simultaneously at any point in the project.
- Or
- (b) Exceeds 500 person days.

PARTY WALL ACT
 The owner, should they need to do so under the requirements of The Party Wall Act 1996, has a duty to serve a Party Structure Notice on any adjoining owner if building work on , to or near an existing Part Wall involves any of the following:

- * Support of beam
- * Insertion of DPC through wall
- * Raising a wall or cutting of projections
- * Demolition and rebuilding
- * Underpinning
- * Insertion of lead flashings
- * Excavations within 3m of an existing structure where the new foundations will go deeper than existing foundations, or within 6m of an existing structure where the new foundations are within a 45 degree line of the adjoining foundations.

A Party Wall Agreement is to be in place prior to the start of work on site

THERMAL BRIDGING
 Care shall be taken to limit the occurrence of thermal bridging in the insulation layers caused by gaps within the thermal element, (i.e. around windows and door openings). Reasonable provision shall also be made to ensure the extension is constructed to minimise unwanted air leakage through the new building fabric.

All dimensions are in millimetres unless otherwise stated.

No dimensions to be scaled from this drawing.

It is the responsibility of the Contractor to check all sizes, site dimensions and positions of drains and services prior to setting out or shop work. Any discrepancies to be reported to the contact details below.

Liability shall not be taken for any defects in this drawing unless, prior to commencement, this drawing and all its dimensions have been so checked and verified.

Proposed floor levels will be no lower than existing floor levels and flood protection measures in accordance with Environment Agency guidelines will be incorporated into the build.

Existing structure including foundations, beams, walls and lintels carrying new and altered loads are to be exposed and checked for adequacy prior to commencement of works and as required by the Building Control Surveyor.

Appendix B

General Notes

CDM REGULATIONS
The owner, should they need to do so, must abide by the Construction Design and Management Regulations 2014 which relate to any building works involving more than 500 man hours or longer than 30 days duration. It is the client's responsibility to appoint a Planning Supervisor on all projects that require compliance with the CDM Regulations.

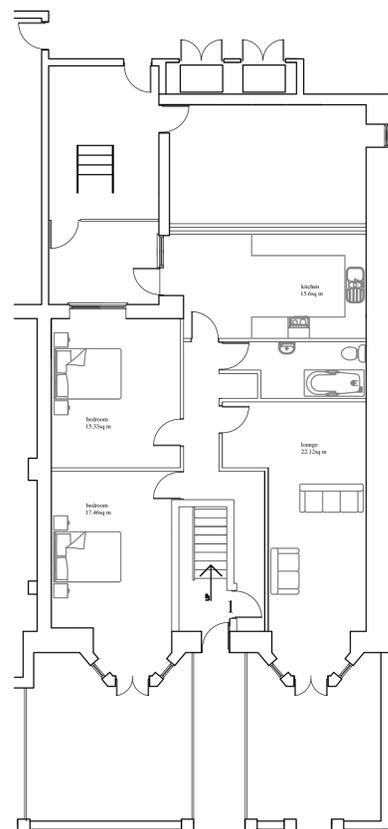
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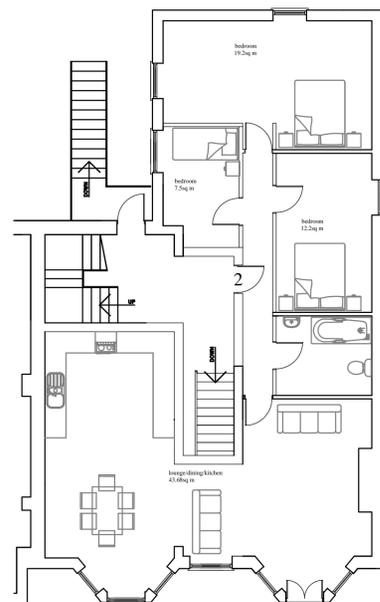
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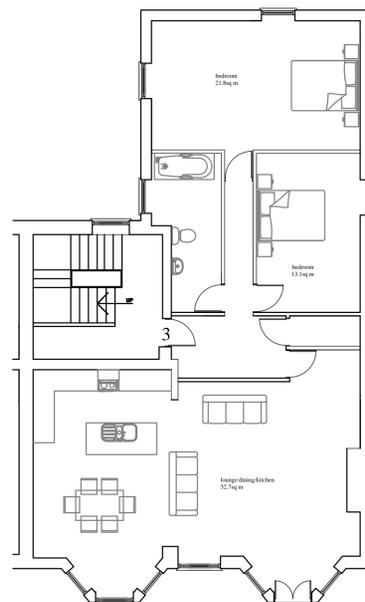
- Flat 1: 4 person 2 bed 87sq m
- Flat 2: 5 person 3 bed 124sq m
- Flat 3: 5 person 2 bed 106sq m
- Flat 4: 5 person 3 bed 106sq m



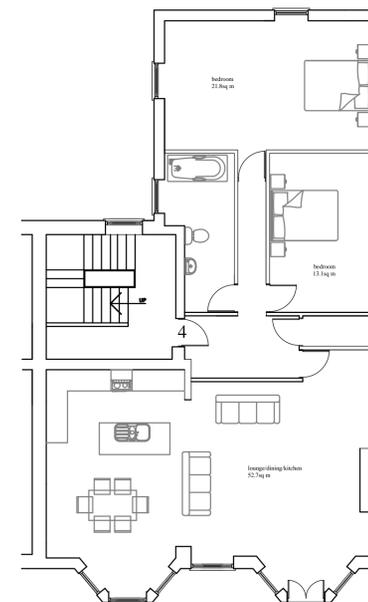
Proposed Ground Floor Plan
1:100



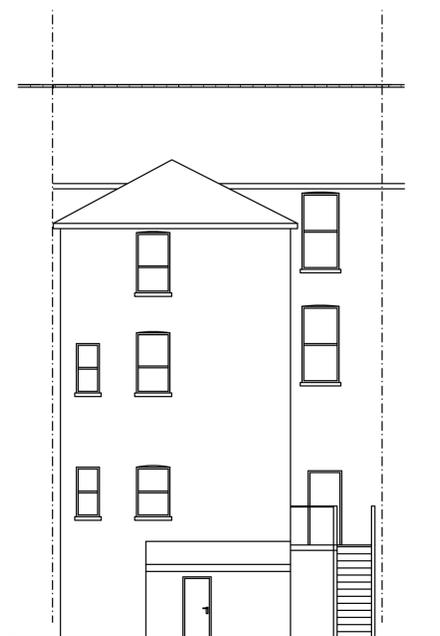
Proposed First Floor Plan
1:100



Proposed Second Floor Plan
1:100



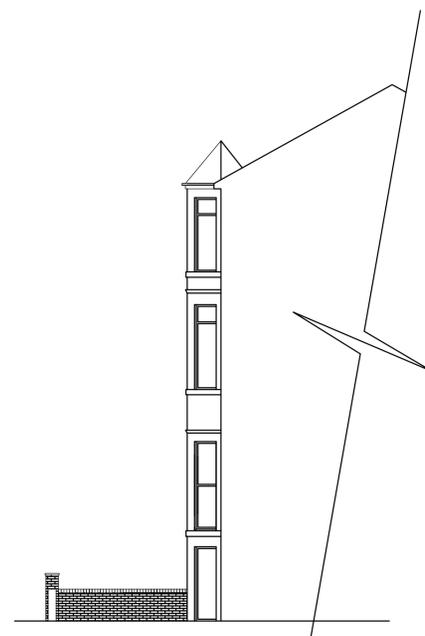
Proposed Third Floor Plan
1:100



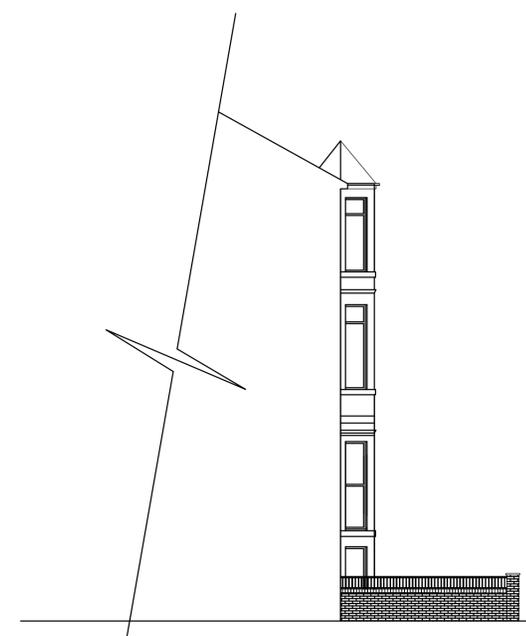
Existing Rear Elevation
1:100



Existing Front Elevation
1:100



Existing Side (South) Elevation
1:100



Existing Side (North) Elevation
1:100

Rev.	Date	Amendment

Client
Mrs F Gallagher

Drawing title
Proposed floor plans and elevations

Project
Use of premises as 4 holiday flats
201 Central Promenade
Blackpool FY1 5DL

Scale As shown @ A1 Date 6/9/2017

Drawn Drg.No. B/21/57/02

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