17th July 2025

82 King Street
- New Plant Installation

Pre-application Report - Rev P02

3DReid

Contents

01	Introduction	3
02	Site and Building Context	5
03	Options Analysis	9
04	Design Proposal	17
05	Appendix I - Options Table	21

Document History		Title / New Plant Installation - Pre-application Report	File / 250009-3DR-XX-XX-RP-A-08701		
Revision	Date	Purpose of issue	Status	Prepared by	Checked by
P01	17/07/25	First issue	S1	JH	NS
P02	22/07/25	Appendix added and leases updated	S1	JH	NS

01

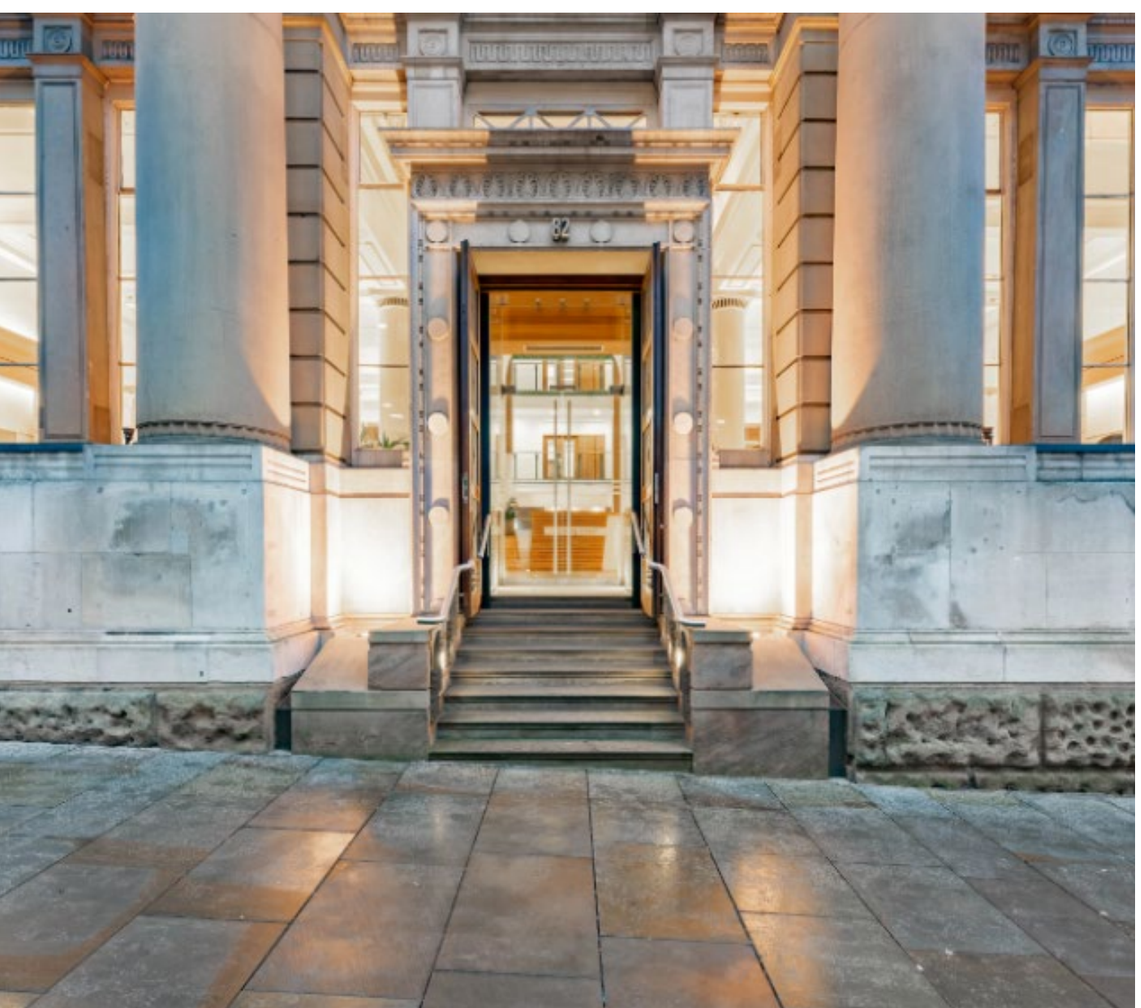
Introduction

Introduction
82 King St

82 King Street, located within the Upper King Street Conservation Area is a Grade I listed building and is noted as ‘the most important building in the conservation area and the oldest in King Street’.

The building was formerly home to the Manchester branch of the Bank of England and is a Classical style building constructed in the 1840s. The interior has grandeur features such as the large arch windows, arched atrium ceiling and ornate columns.

This report has been prepared to acccompany a request for pre-application advice regarding new plant installation. A new temporary plant room will provide space for a new electrically supplied air conditioning, heating and cooling to the building, whilst the building is occupied.





02

Site and Building Context

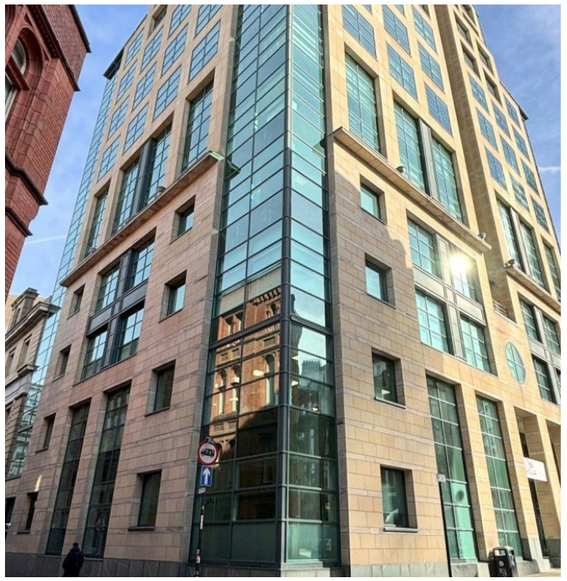
Site Context
Site Analysis



Site Context
Photos



Back facade of 82 King Street



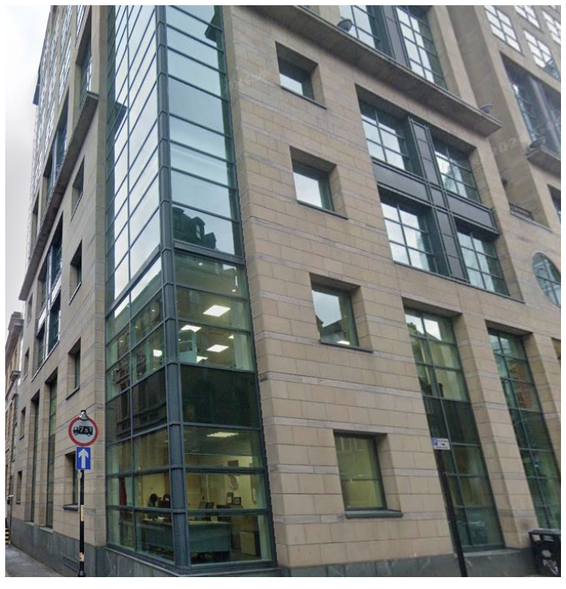
Corner of Essex Street & Tib Lane



Looking down Tib Lane



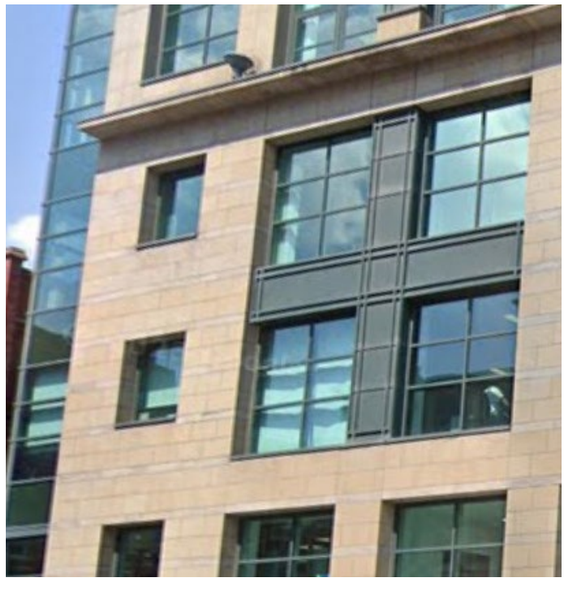
Looking up Tib Lane



Corner of Essex Street & Tib Lane

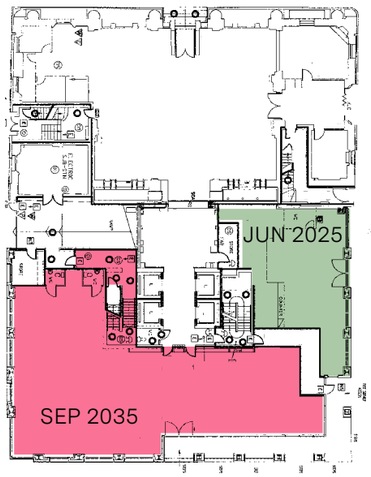


Corner of Essex Street

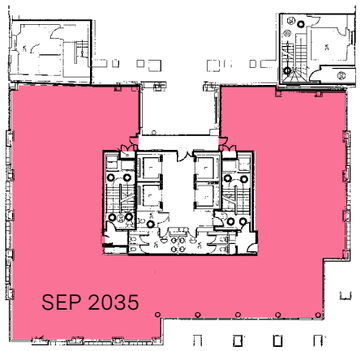


82 King Street Facade

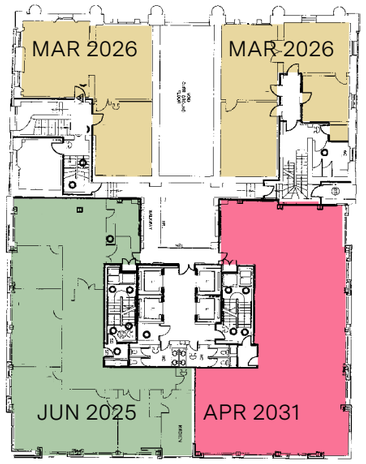
Building Context
Lease Plans



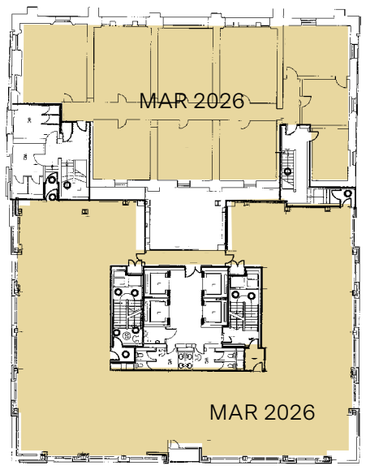
Ground Floor



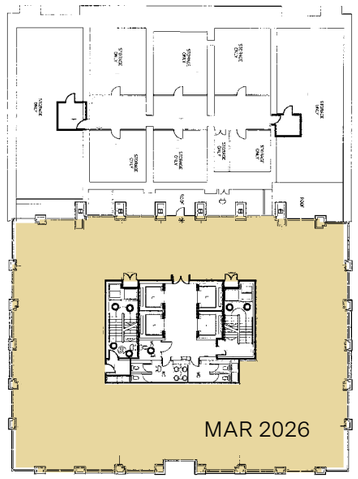
Level 01



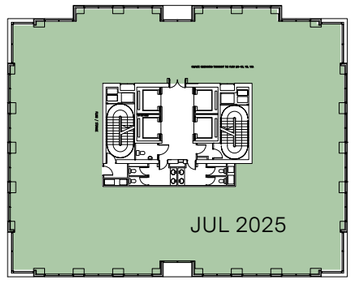
Level 02



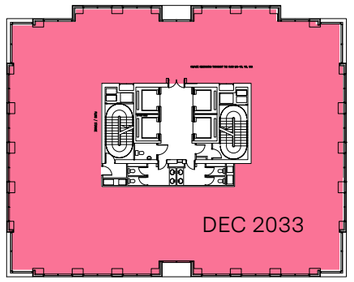
Level 03



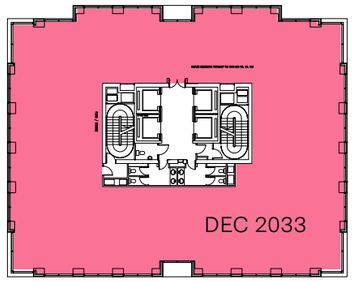
Level 04



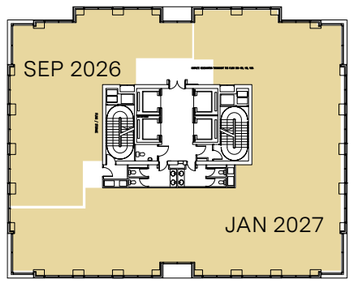
Level 05



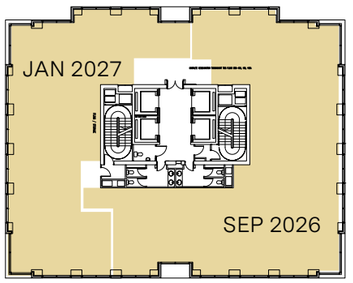
Level 06



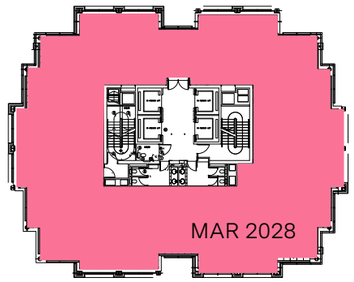
Level 07



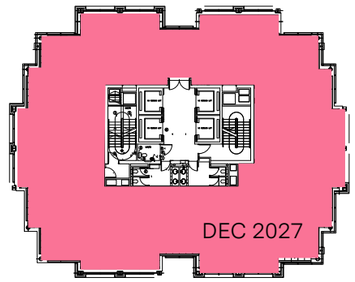
Level 08



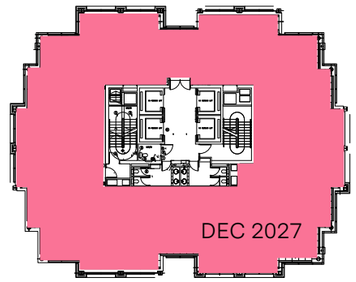
Level 09



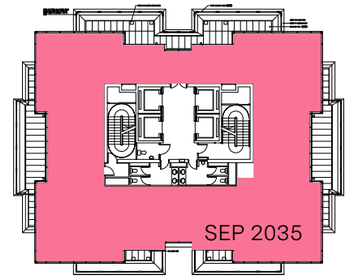
Level 10



Level 11



Level 12



Level 14

The plans on this page are colour coded to show the order in which leases are ending within the building. The location of the temporary plant room will need to consider where and when units are becoming available.

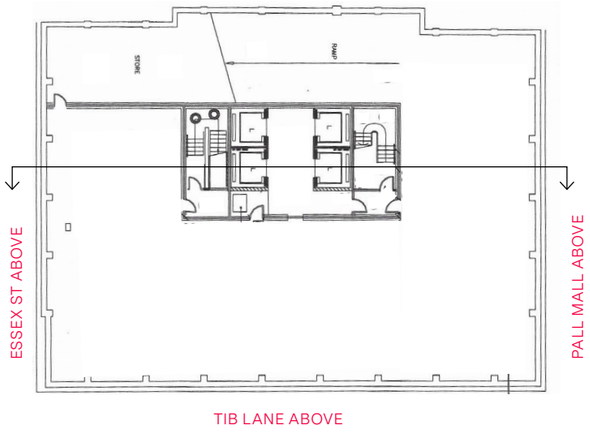
03

Options Analysis

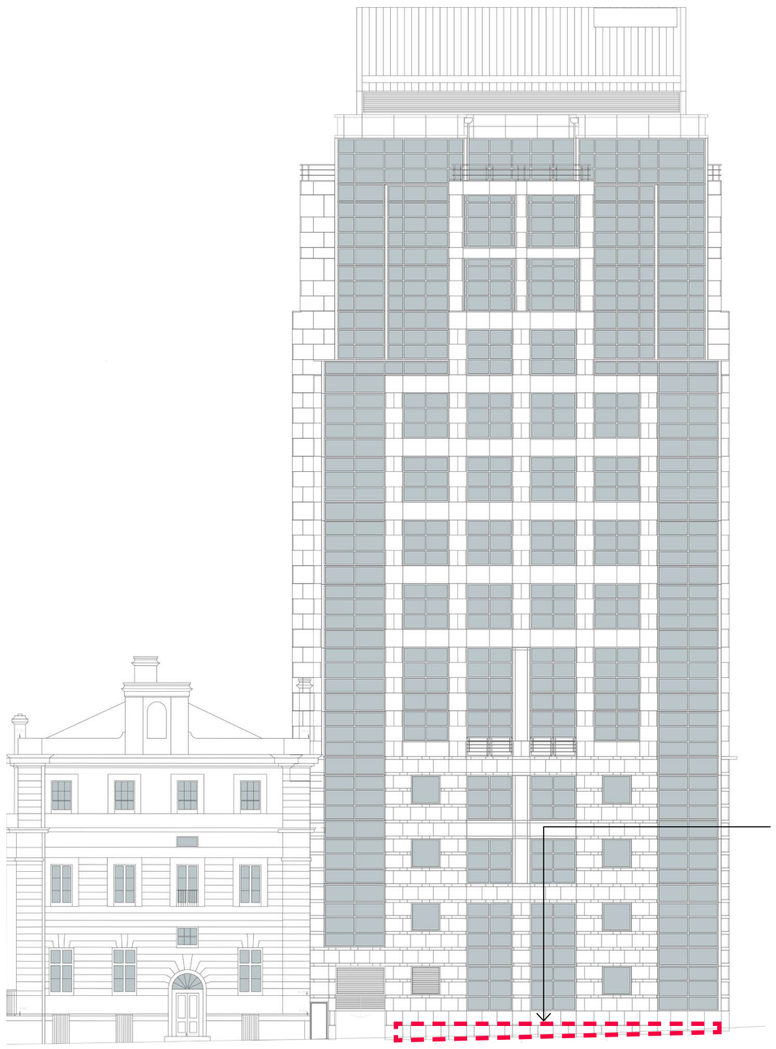
Design Proposal
Option 1

The following pages illustrate the different options reviewed during the design process. Comments on viability are shown on relevant plans and elevations of the building, to show the context of each option.

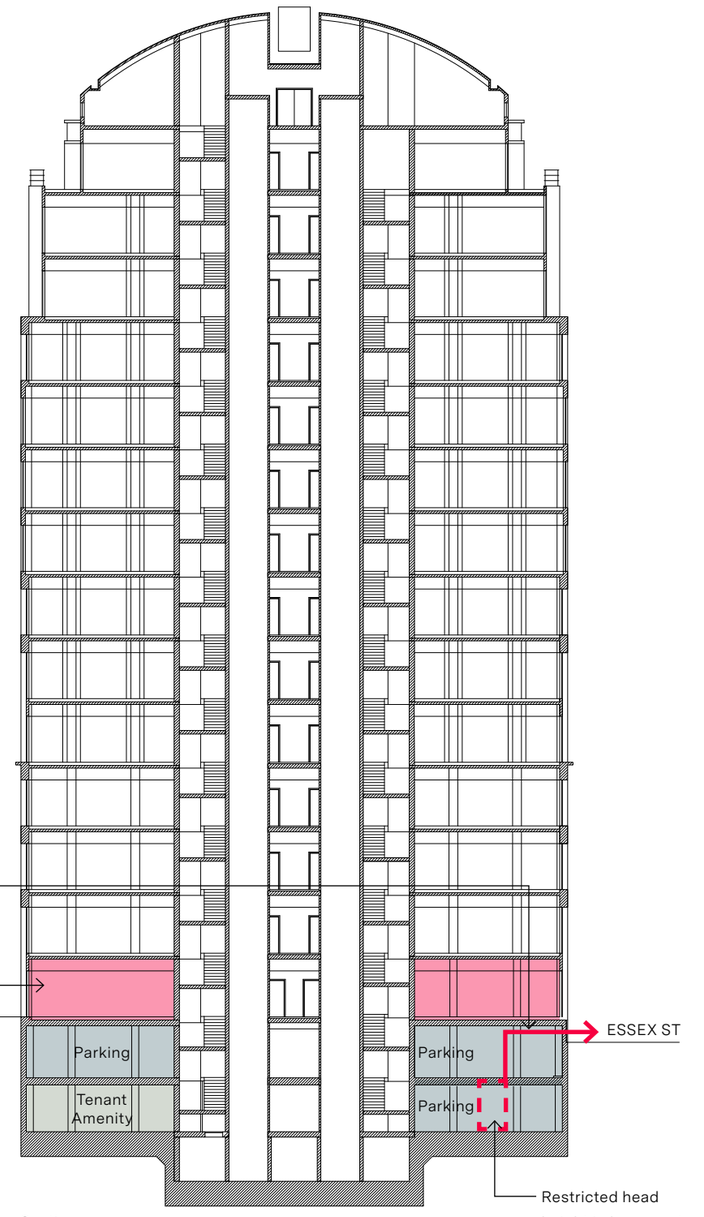
Option 1 - Install condensers in the basement



Floor Plan - Basement 2



Elevation - Essex St



Building Section

Options Analysis
Option 2

- install 48no. wall-mounted external condensers



Example of required size condenser installed on external wall

High percentage of curtain wall glazing across all the facades, leaves a small amount of area available for installation of condensers.



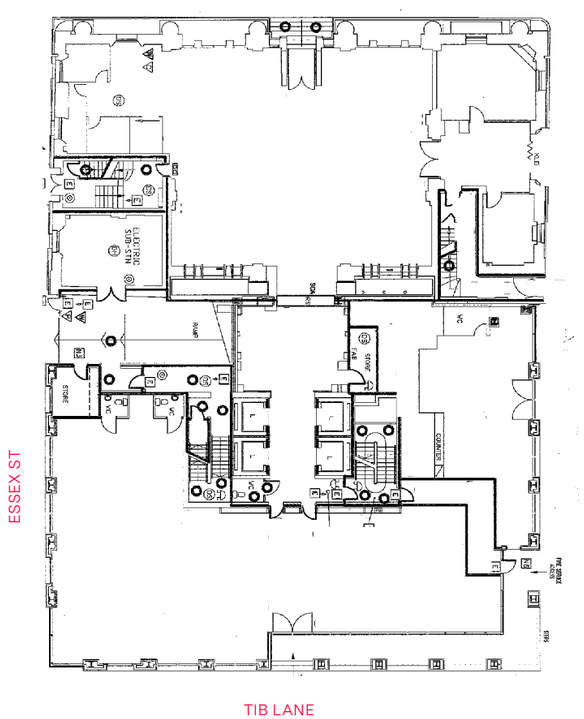
Elevation - Essex St

Elevation - Tib Lane

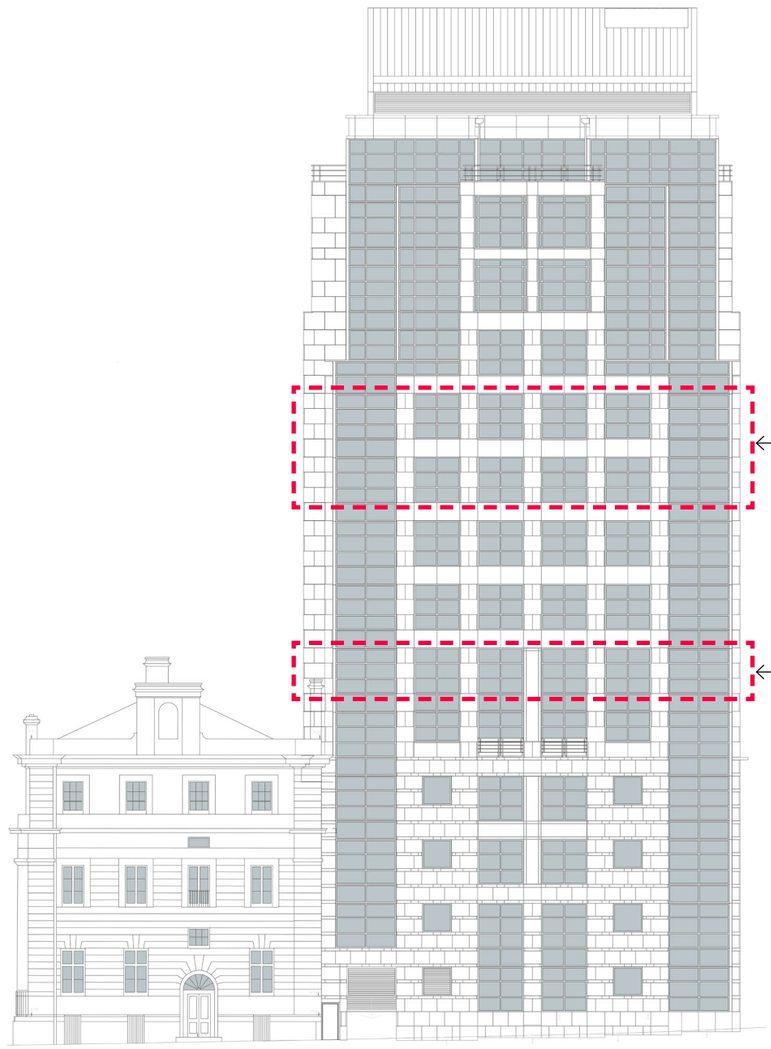
Elevation - Pall Mall

Options Analysis
Option 3

- Utilise other vacant floors for installation of VRF condensers

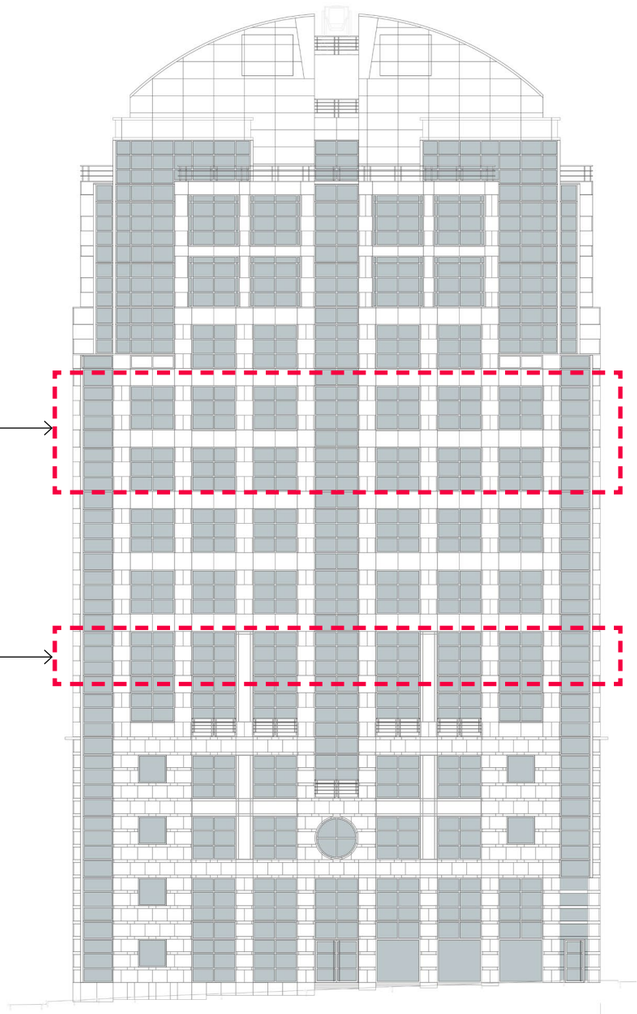


Floor Plan - Ground Floor



Elevation - Essex St

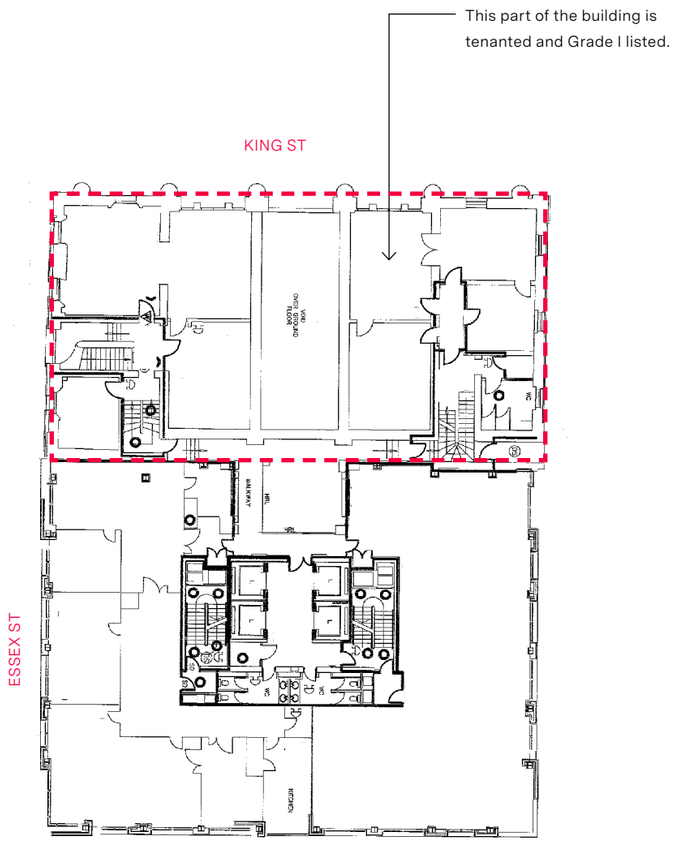
Lease of units on Level 5, 8 and 9 are due to expire within the next two years. However, due to the height of the building compared to the adjacent buildings, we believe these floors will have a greater visual impact on the surrounding buildings. Within the city, higher floors are deemed desirable to tenants.



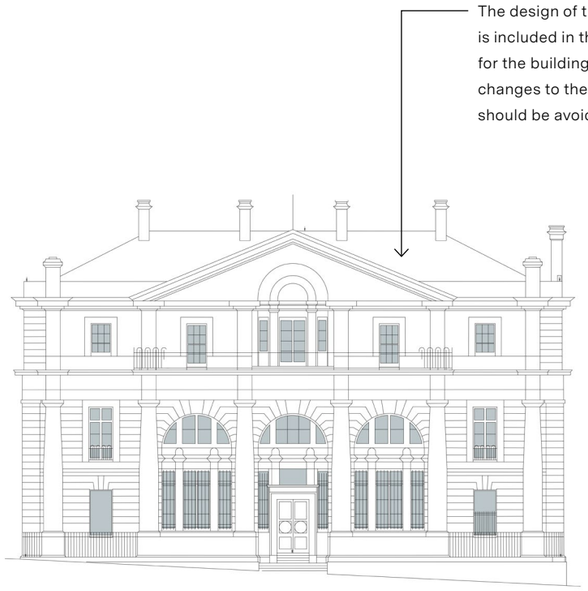
Elevation - Tib Lane

Options Analysis
Option 4

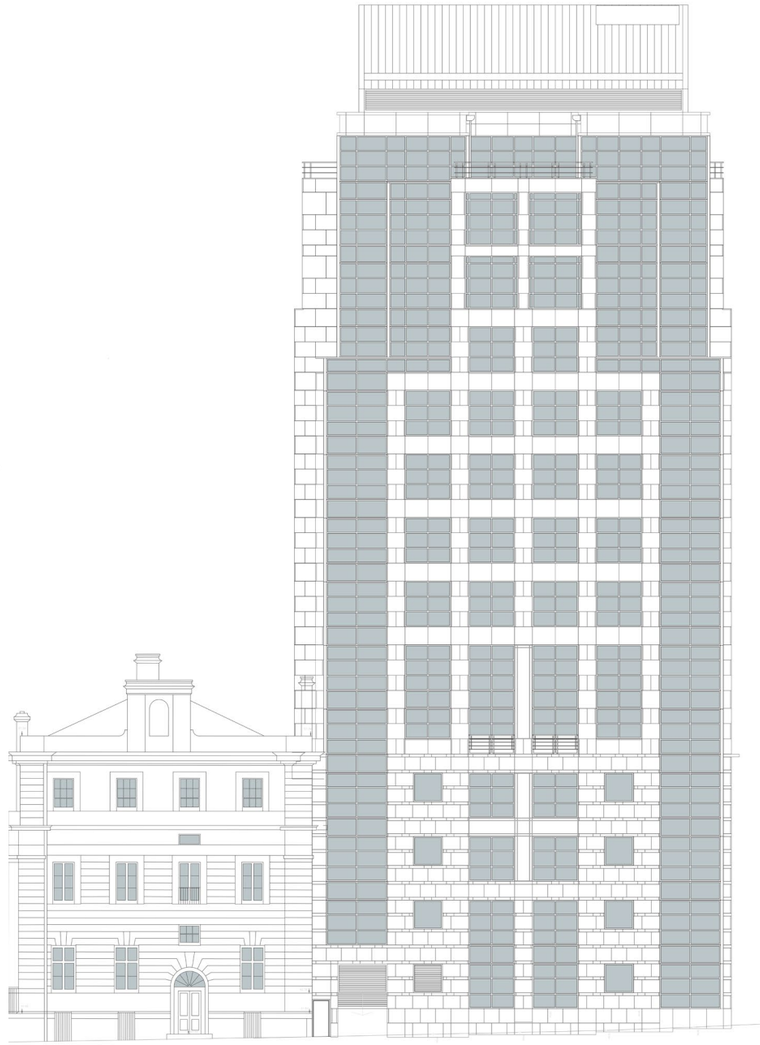
- Locate new condenser plant room within the internal Bank of England premises



Floor Plan - Level 02



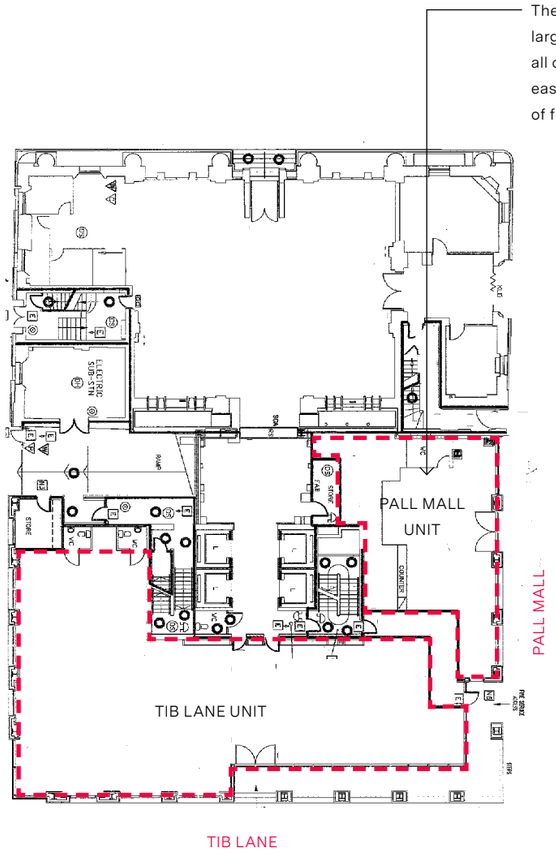
Elevation - King St



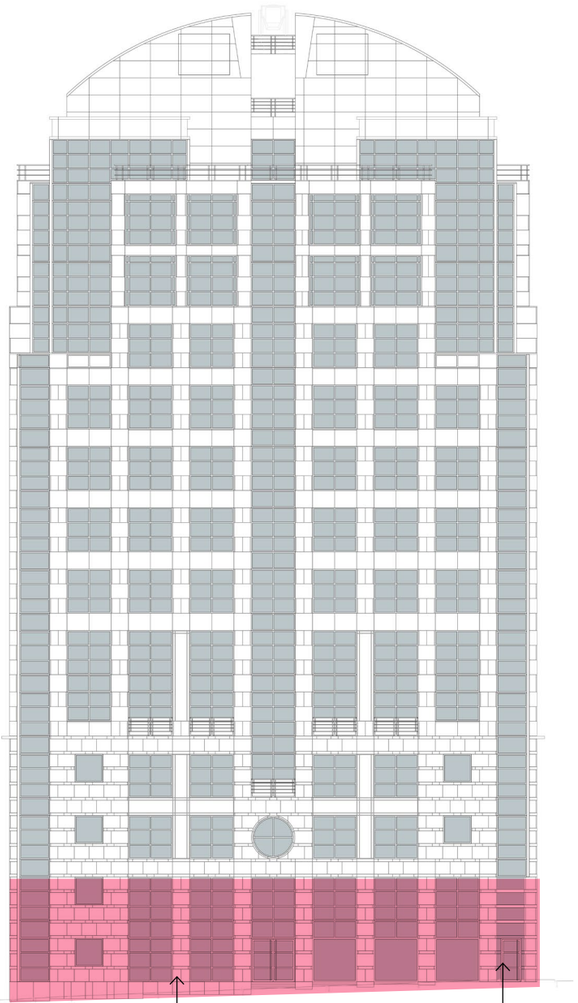
Elevation - Essex St

Options Analysis
Option 5

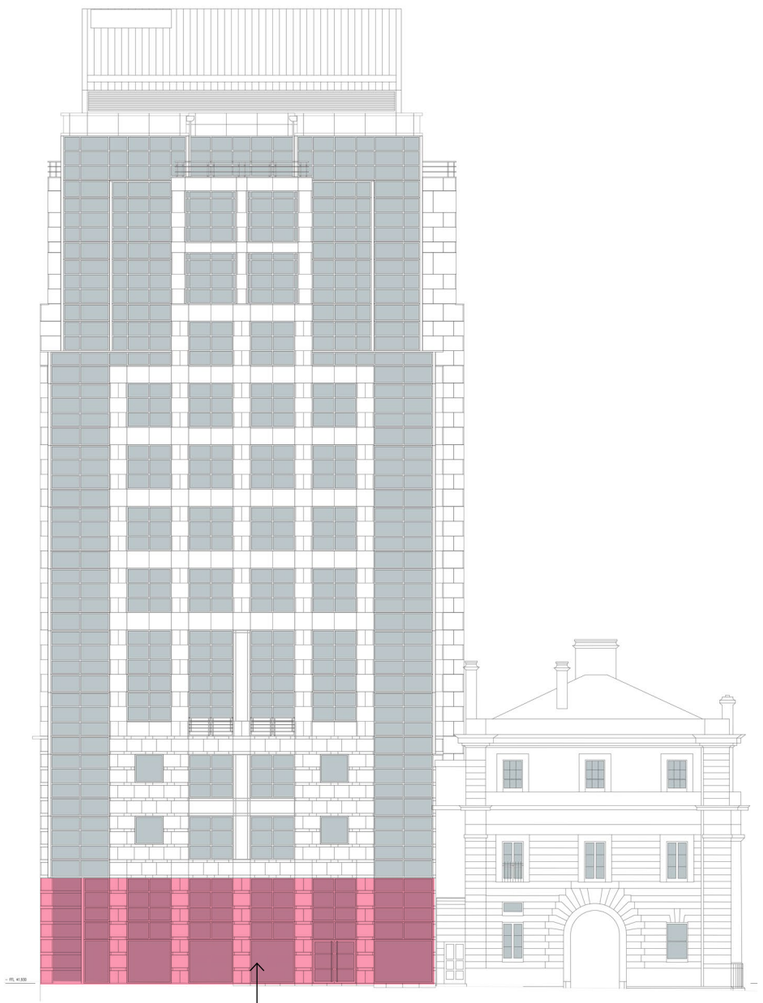
- Installation of VRF condensers on the ground floor



Floor Plan - Ground Floor



Elevation - Tib Lane



Elevation - Pall Mall

Lease of Pall Mall unit on Level 0 is due to expire. Installation of louvres at this level would remove active frontages from street level.

Options Analysis
Option 6, 7 and 8

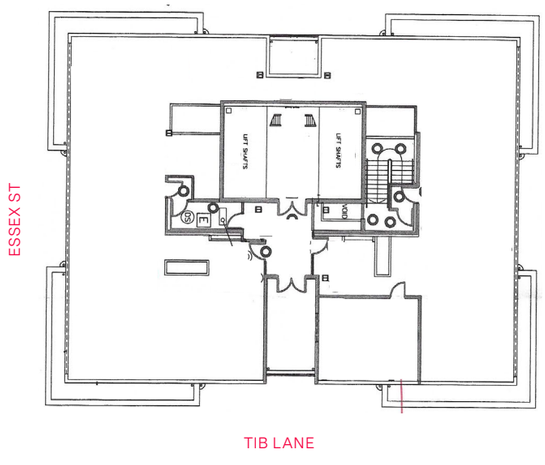
- Removal of existing plant prohibited under lease

- Use of air source heat pump

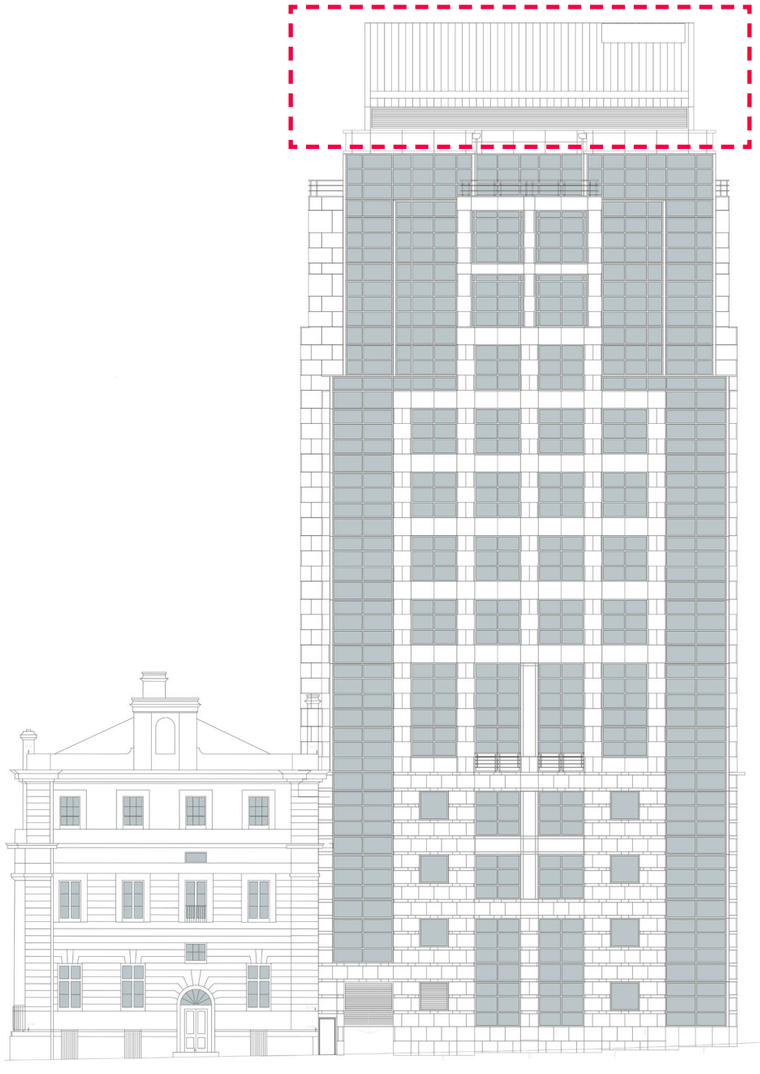
- No cooling in the building

These options are not viable as the existing plant room cannot be refurbished without terminating cooling to units with current leases.

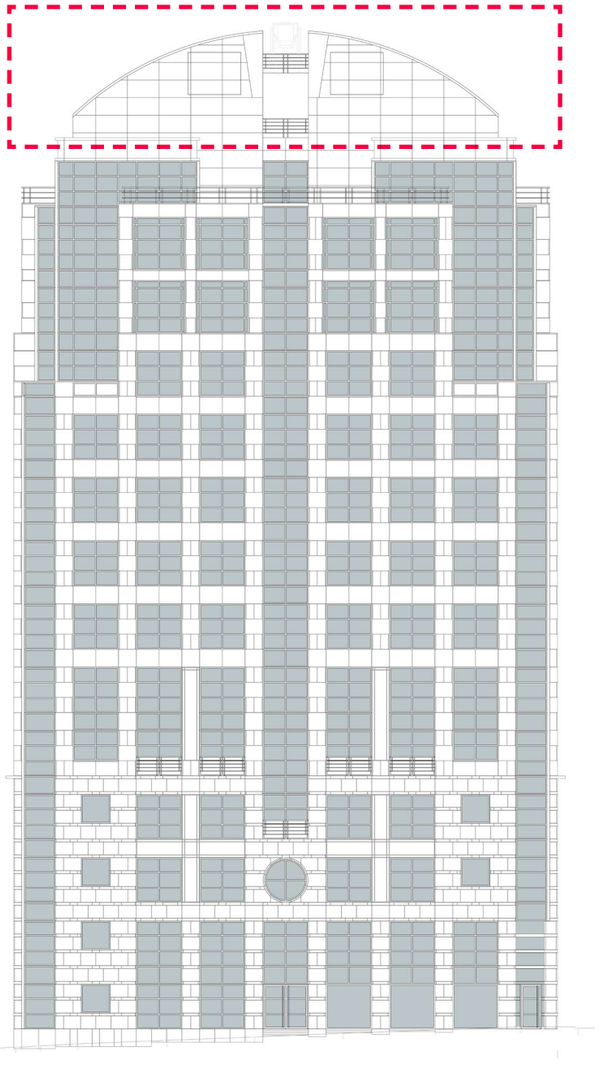
The long term plan is to remove and replace existing plant in the plant room at the top of the building, but this cannot be carried out whilst the building is occupied.



Floor Plan - Plant Room



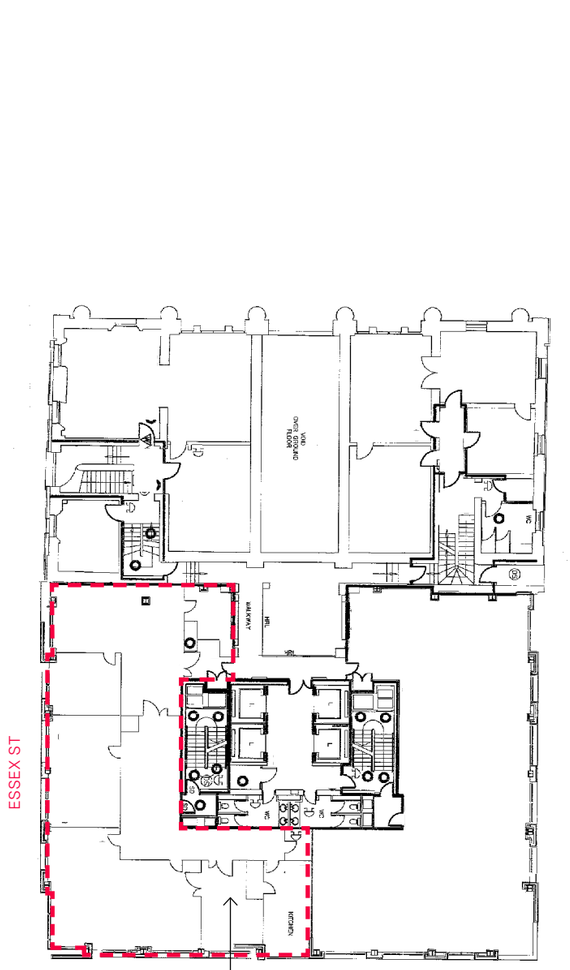
Elevation - Essex St



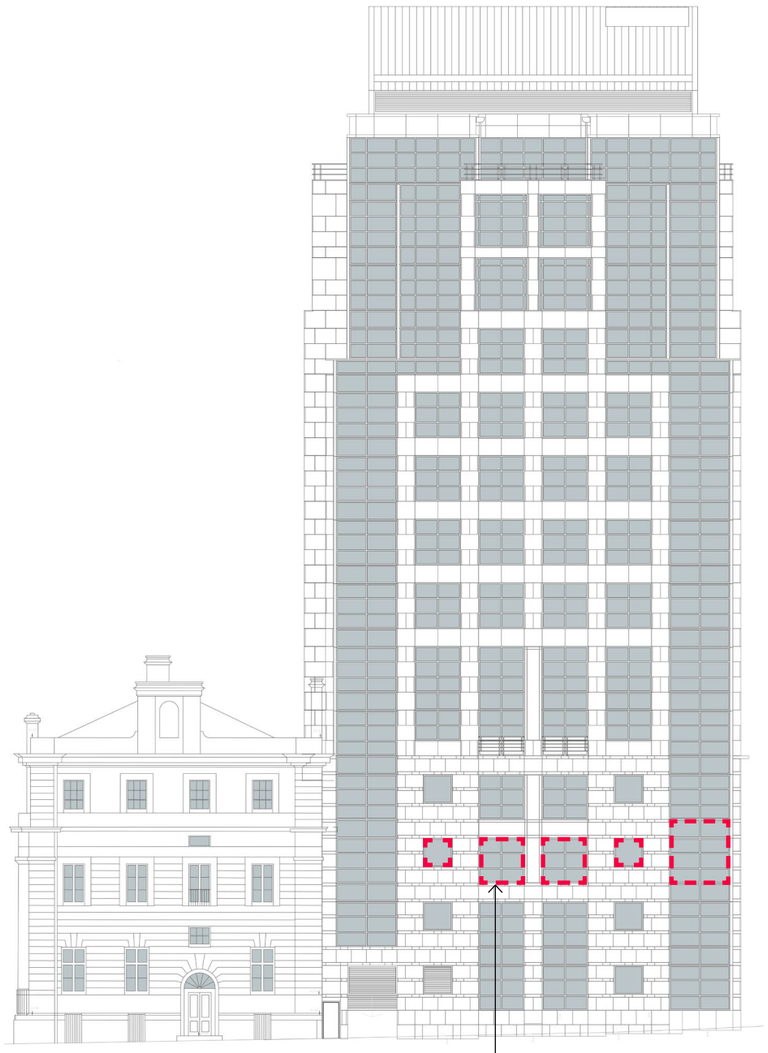
Elevation - Tib Lane

Options Analysis
Option 9 (Proposed)

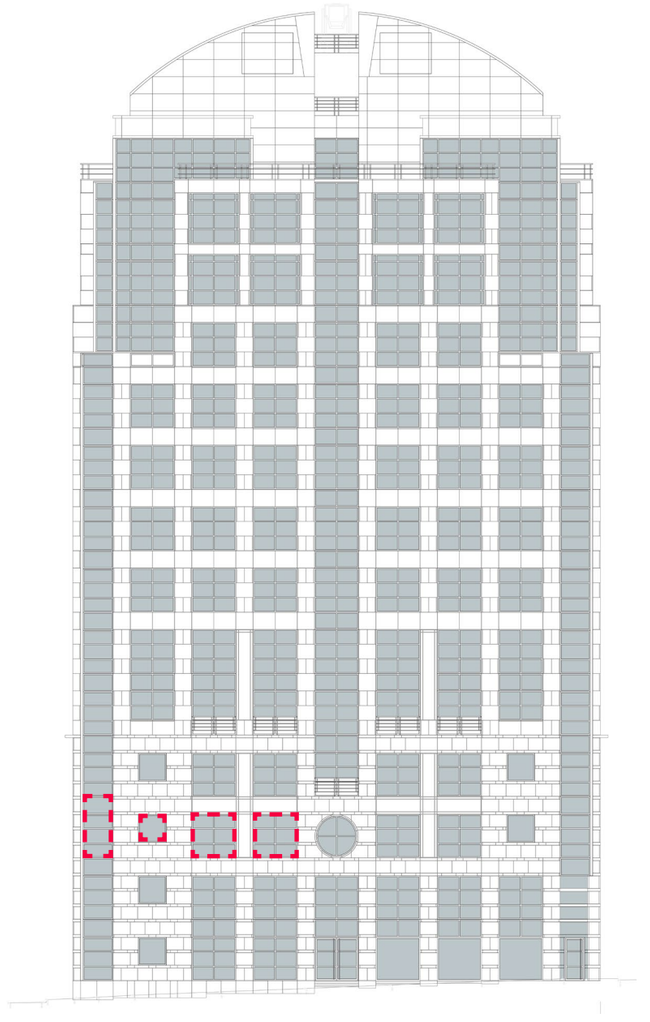
- Installation of VRF condensers on the Second Floor



Floor Plan - Level 02



Elevation - Essex St

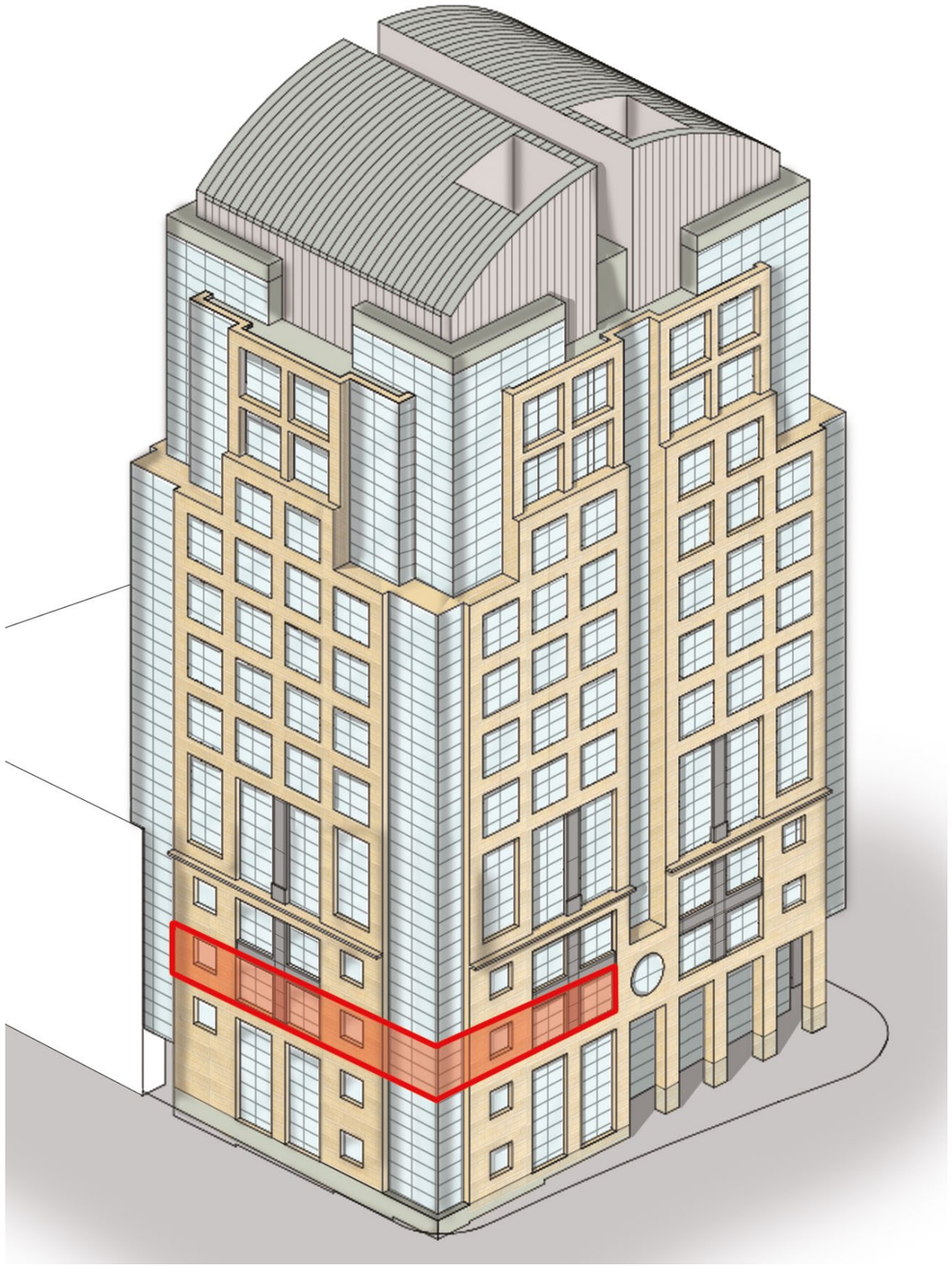


Elevation - Tib Lane

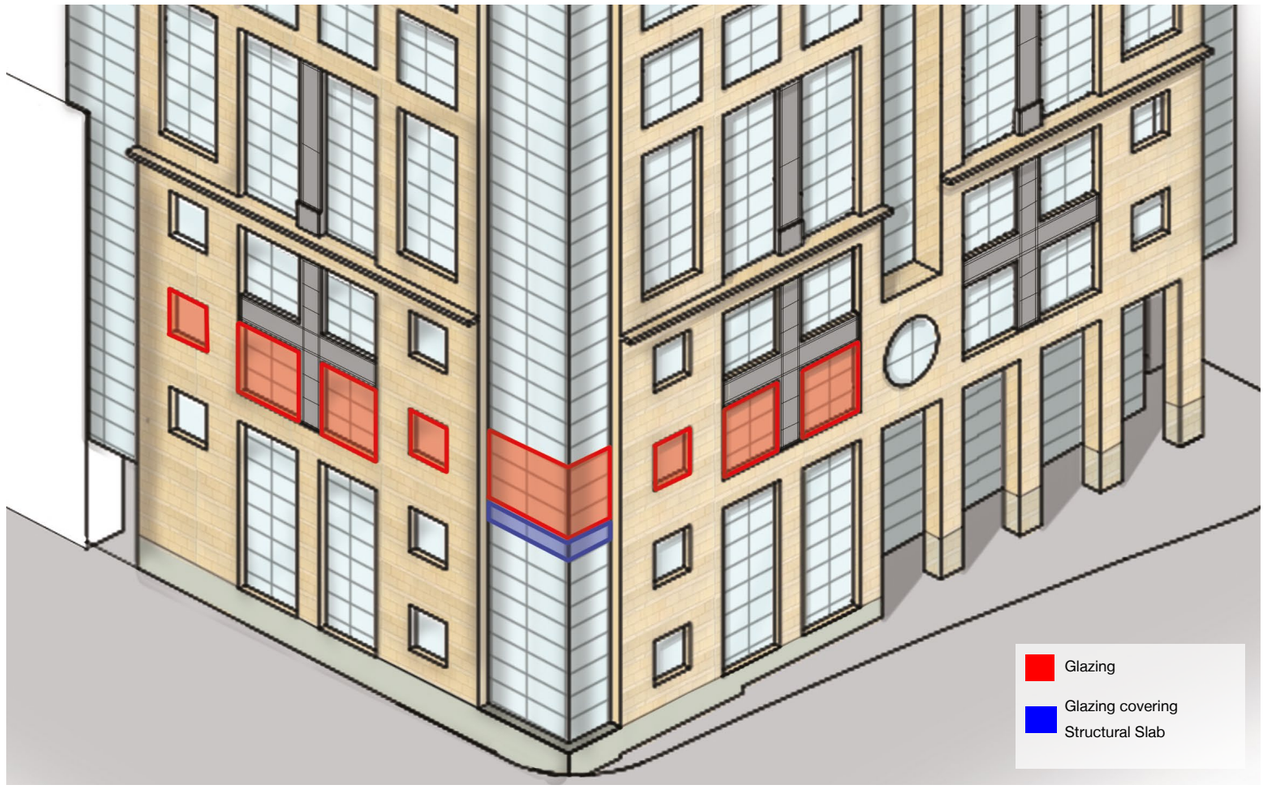
04

Design Proposal

Design Proposal
Proposed Location

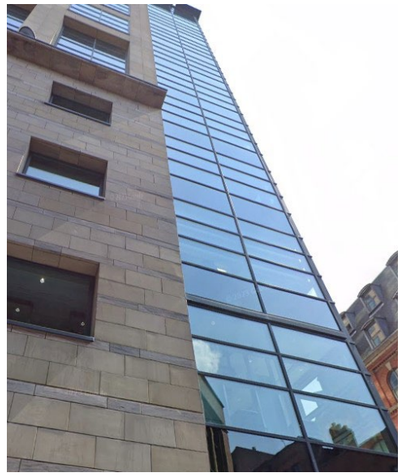


82 King Street



Corner of Essex Street & Tib Lane







Site Photographs

Design Proposal
Glazing Replacement

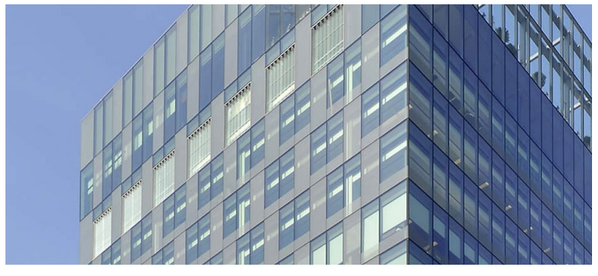
The strategy to provide ventilation to the new plant room to the 2nd Floor would consists of working with the existing framing system.

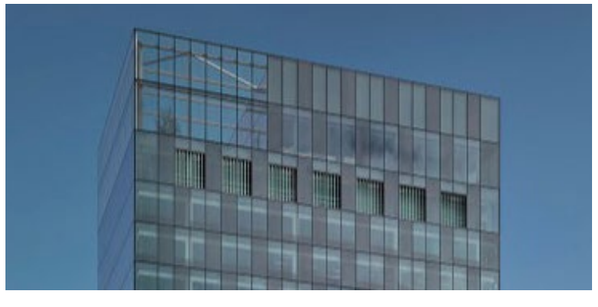
- Removal of the existing glazing panels from the existing curtain wall and window frames.

- Retain the existing frames to install the new louvred/ perforated panels.

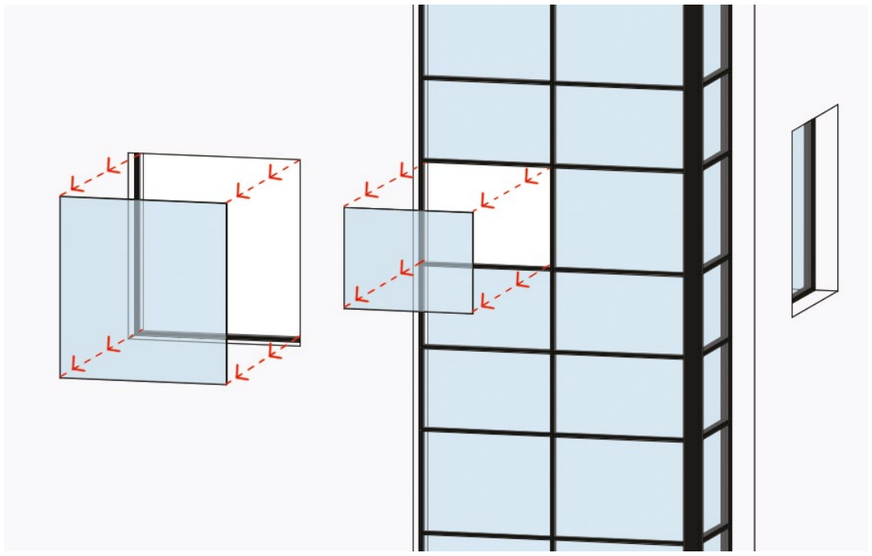
- Storage of the existing glazing panels that have been removed to allow for them to be reinstalled once the tenant MEP update has been completed.



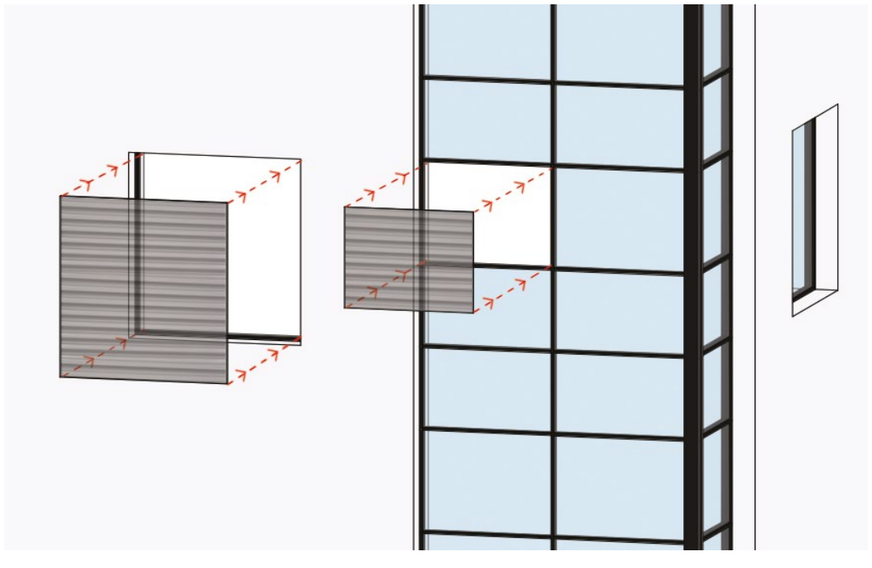




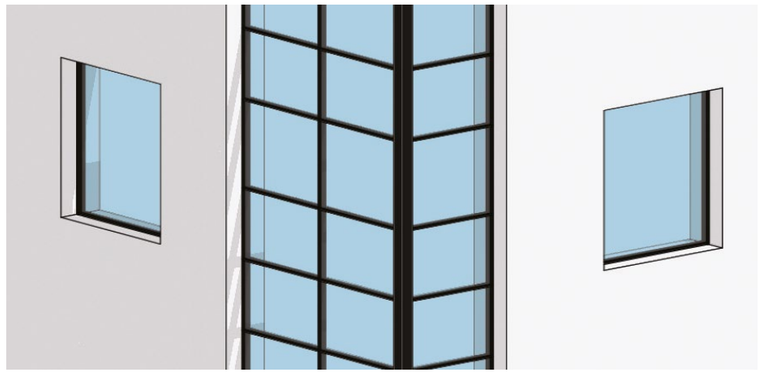
Precedent Images - 1 Spinningfields & 2 St Peter's Square, Manchester



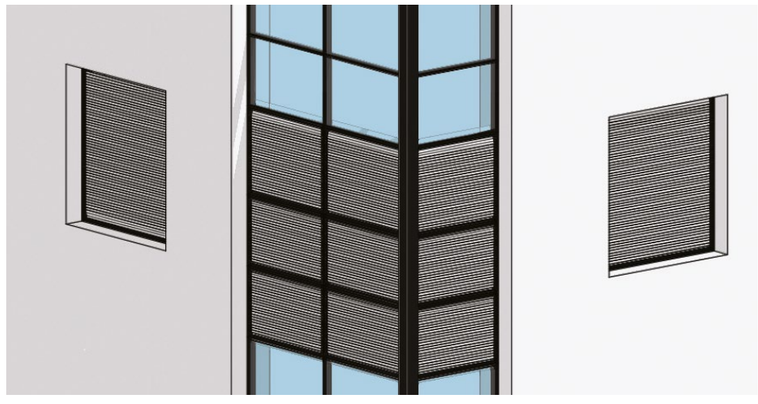
Existing glazing panels removed from the window and curtain wall framing.



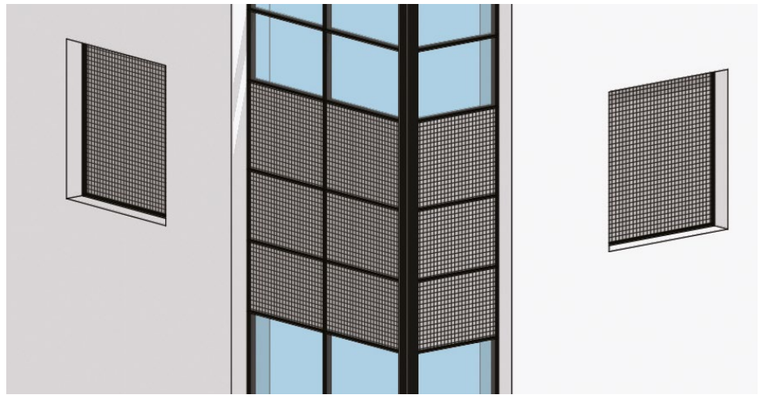
Louvred panels/perforated panels installed into the existing window and curtain wall framing.



Original glazing - Curtain wall frame and window frame

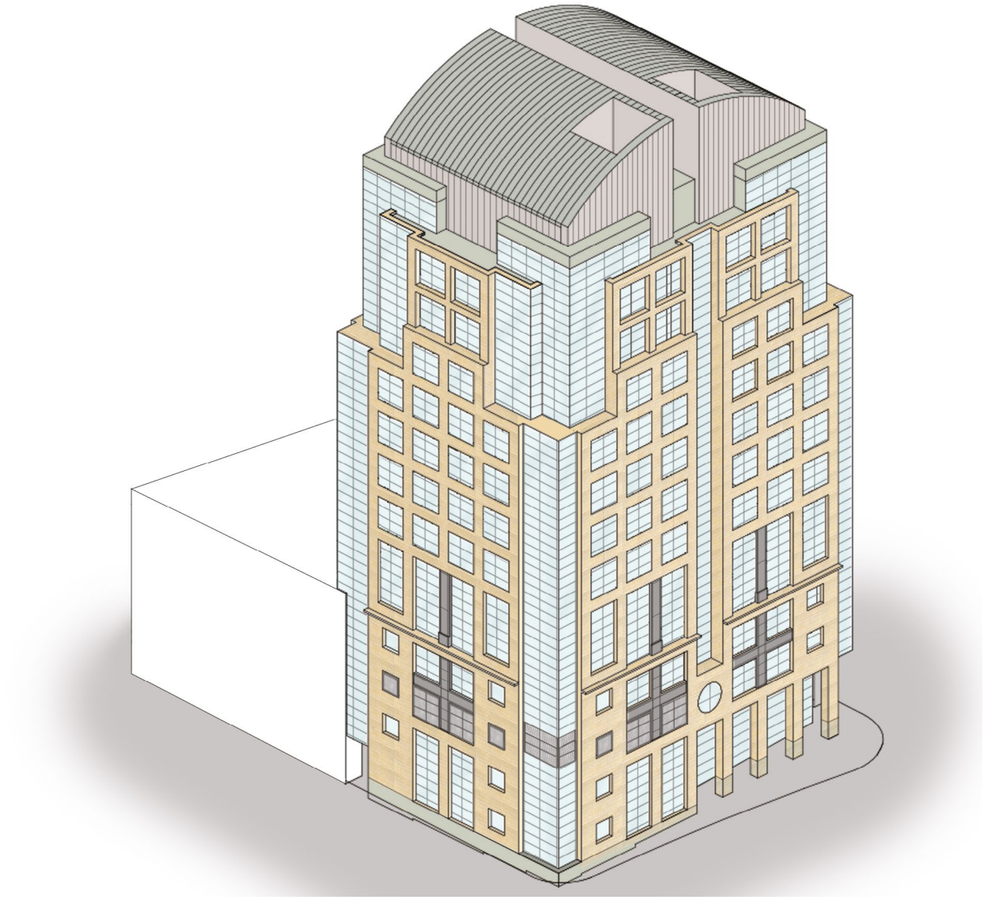


Louvred panels integrated into the original framing systems



Perforated panels integrated into the original framing systems

Design Proposal
Perforated Panels



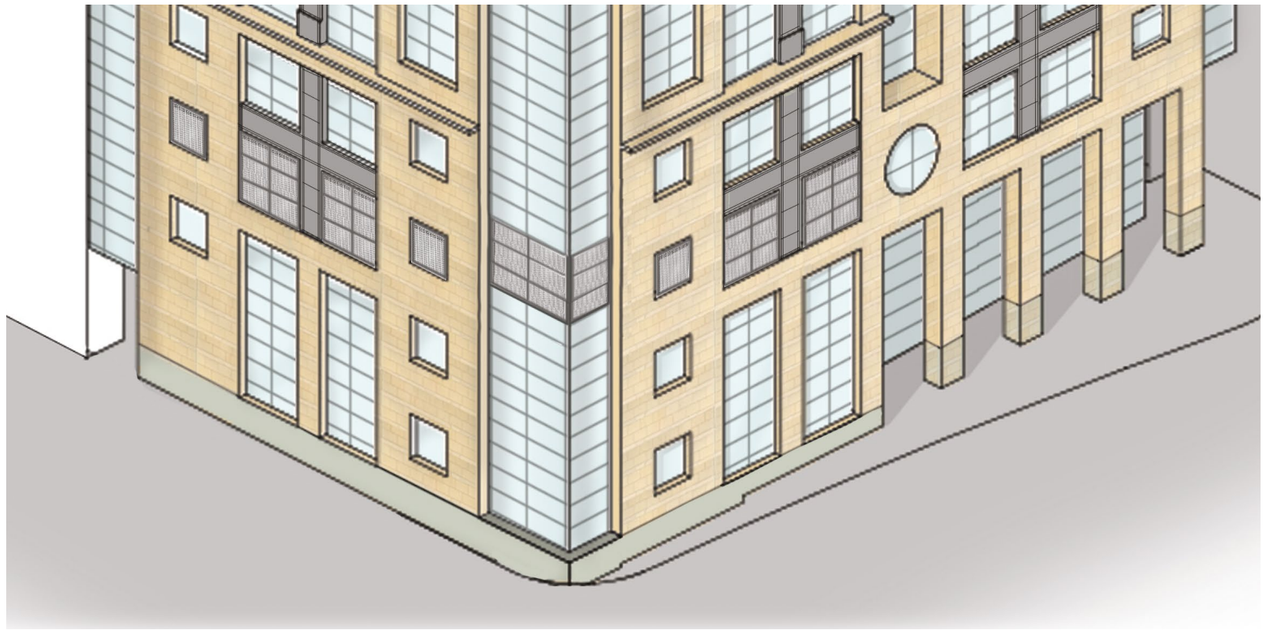
82 King Street - Option 2 - Perforated Panels



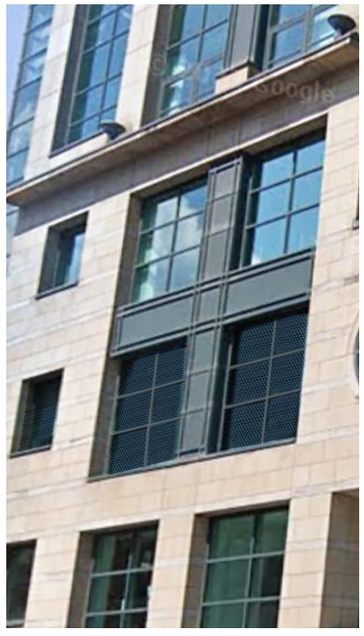




Precedent Photographs



Corner of Essex Street & Tib Lane - Perforated Panels





Mock up Images - Perforated Panels

05

Appendix I
- Options Table

Appendix I
Options Table

Option		Observations	Viability
1	Install condensers in the basement	The Basement floor to underside of downstand beam height is 2775mm.	The VRF condensers required are 1858mm high with support frame system height of 360mm and heat rejection ductwork height of 800mm, total plant height is 3018mm, so this is not a viable option.
2	Wall-mounted external condensers	This would require circa 4No. external multi-split condensers to be installed per floor level, externally mounted to the building façade.	Each condenser would be 1050mm wide x 1338mm high x 330mm deep not including support systems. Clear space required to each side of condenser. 12No. floor levels (2nd to 13th) so 48No. condensers required.
3	Utilise any other vacant floors for installation of VRF condensers	Only a partial floorplate is required to house proposed temporary VRF condensers.	An internal condenser plantroom on the corner of the building with louvres in 2No. facades will be the most likely to achieve required airflow into an out of any new internal plantroom.
4	Locate new condenser plant room within the internal Bank of England premises	Listed building so forming new external louvres would be problematic. Noise and vibration from internal plant would be very difficult to mitigate in an older structure.	Would require significant alterations to roof and/or façade which is unlikely to be acceptable to Historic England.
5	Installation of VRF condensers on the ground floor	Removal of Pall Mall F&B unit to create a new internal, ventilated plantroom for VRF condensers.	Full frontage of F&B unit would need to be changed to louvres. Installation affects active frontage. Unit would not be large enough to accommodate all condensers required for full building so only partial solution.
6	Removal of existing plant prohibited under lease	Temporary and permanent plant replacement options are therefore only viable in alternative locations to existing plant which is in 14th Floor Plantroom and roof plant wells.	-
7	Use of air source heat pump	Requires full removal of existing gas boilers and associated services then enabling works to create ventilated plant area in 14th Floor Plantroom prior to installation works being able to commence. No hot water or heating during this time which is in breach of existing lease agreements.	Existing internal pipework and fan coil units providing heating and cooling to each office cannot be guaranteed to work with change to air source heat pump heating system. Change to VRF condensers also allows for phased replacement of all pipework and fan coil units with new.
8	Cease provision of cooling to the building	This is not viable whilst there are leased units in the building	-
9	Installation of VRF condensers on the second floor	VRF systems are proposed be installed to replace the existing chiller plant as well as the boiler plant for the heating provision within tower offices. This would involve the provision of VRF type external type condensers. As there is limited external plant space available, the only location identified for these condensers, prior to any existing plant removal, is within the soon to be vacant part of the 2nd Floor. This vacant corner of the tower building, on the Tib Lane and Essex Street facades, is proposed to temporarily be converted into an internal plant space with windows replaced with louvres. New VRF heat pump condensers would be installed within this space during works, then relocated to the roof plant areas following existing boiler and chiller plant removal.	Partial 2nd Floor demise is becoming available. 2nd Floor has a retail tenant in the unit below which so is not a noise and vibration sensitive a neighbour as an office demise would be.

Birmingham
103 Colmore Row
B3 3AG
T +44 (0)345 271 6200

Edinburgh
36 North Castle Street
EH2 3BN
T +44 (0)345 271 6300

Glasgow
45 West Nile Street
G1 2PT
T +44 (0)345 271 6350

London
1 Hills Place
W1F 7SA
T +44 (0)345 271 6100

Manchester
26 Cross Street
M2 7AQ
T +44 (0)345 271 6250

3DReid.com

Spaces that work,
beautifully.

3DReid